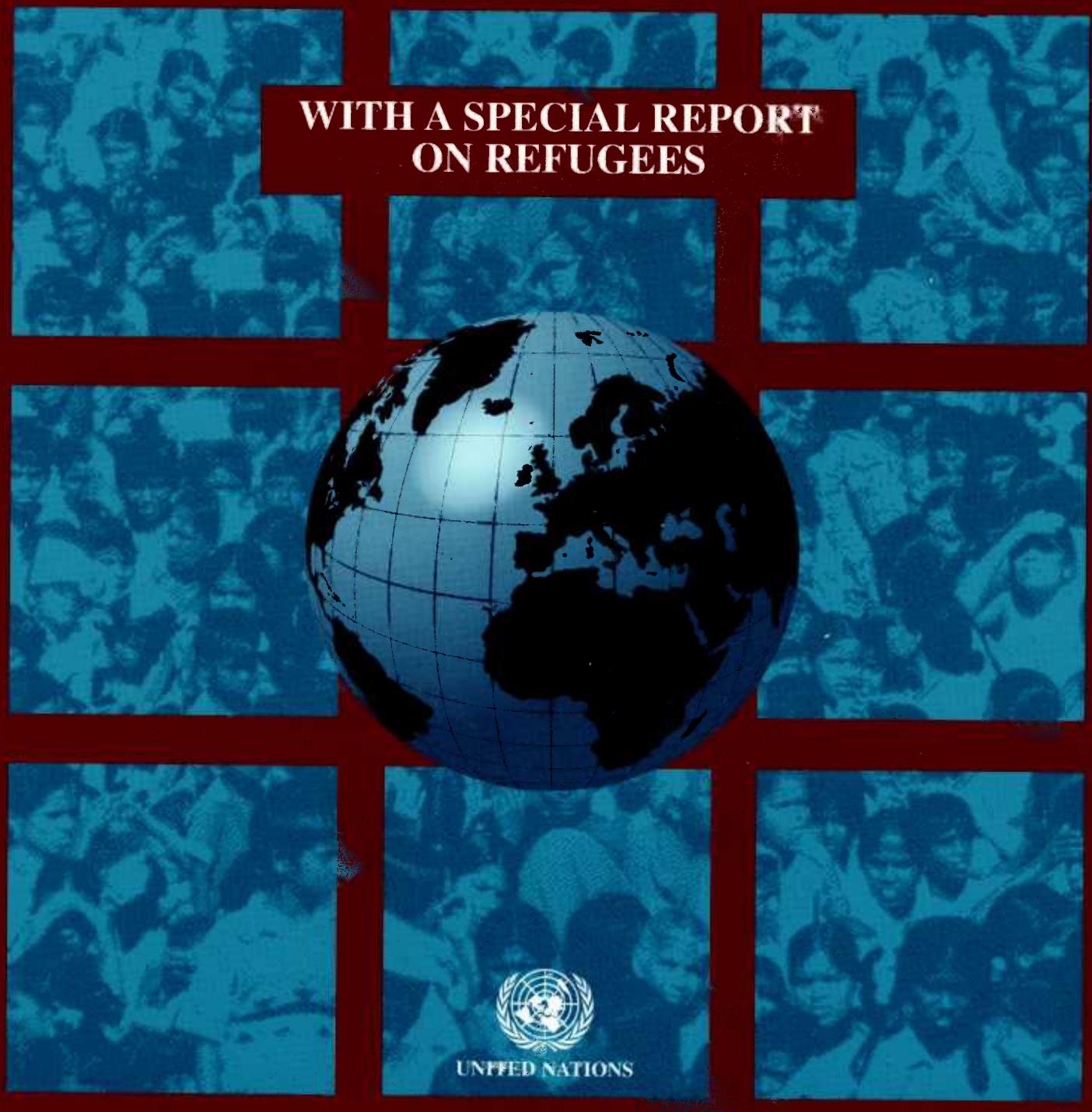
World Population Monitoring 1993

WITH A SPECIAL REPORT ON REFUGEES



UNITED NATIONS

UNITED NATIONS PUBLICATIONS, DATABASES AND SOFTWARE ON POPULATION*

SELECTED LIST, 1995

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Population Policy Diskette Documentation, 1993, English only. $50.00 (including data diskette). ST/ESA/SER.R/139.

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Abortion Policies: A Global Review. English only. Vol. I: *Afganistan to France* (158 pp., $25.00. ST/ESA/SER.R/129. Sales No. E.29. XIII.8). Vol. II: *Gabon to Norway* (243 pp., $25.00. ST/ESA/SER.R/129/Add.1. Sales No. E.94. XIII.2). Vol. III: *Oman to Zimbabwe* (forthcoming. ST/ESA/SER.R/129/Add.1).

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Sex and Age Quinquennial, 1950-2050 (The 1994 Revision). Contains population by sex and age for countries (with population size of 150,000 or more in 1990), regions and major areas; quinquennial estimates for 1950-1990 and the medium-variant projections for 1990-2050. $150.00.

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Urban and Rural Areas, 1950-2025 (The 1994 Revision). Contains files comprising (for each country, region and major area) estimated and projected urban, rural and total populations and their rates of growth; percentage of population residing in urban areas; and growth rate of percentage urban and percentage rural; date are presented quinquennially for 1950-2025. $150.00.

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Global Review and Inventory of Population Policies: 1993 (GRIPP:1993). Contains data on the population policies and policy perceptions of 190 countries, assessed as of December 1993. Available on diskette at $50.00 each.

International Migrant Stock. Presents data (in LOTUS files) on the foreign-born or the foreign population enumerated by the most recent censuses of developing countries, classified for each region by sex, age group and country of birth (or country of nationality). Africa, $100.00; Asia, $50.00; and Latin America and the Caribbean, $150.00; trends in fold migrant stock, $40.00

Population, Resources, the Environment and Development (PRED BANK). A Population Division microcomputer database for population and development research for IBM personal computers and compatibles. Available as files readable by LOTUS 1-2-3, PFS Professional File, Reflex and Systat. The cost of one data diskette and one user's guide is $75.00; additional data diskettes cost $25.00 each.

The United Nations Software Package for Mortality Measurement. MORTPAK 3.0 (mainframe), available on IBM standard label tape for $130.00; MORTPAK-LITE 3.0 (PC), available on diskette for the same price, which includes the manuals.

QFIVE: Microcomputer Program for Child Mortality Estimation. Available on diskette at $50.00 per copy, including the *Step-by-Step Guide to the Estimation of Child Mortality*.

ST/ESA/SER.A/139

Department for Economic and Social Information and Policy Analysis
Population Division

World Population Monitoring 1993

WITH A SPECIAL REPORT ON REFUGEES

UNITED NATIONS
New York, 1996

NOTE

The designations employed and the presentation of the material in the present report do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Where the designation "country or area" appears in the headings of tables, it covers countries, territories, cities or areas.

In some tables, the designations "developed" and "developing" countries are intended for statistical convenience and do not necessarily express a judgement about the stage reached by a particular country or area in the development process.

The present report has been edited and consolidated in accordance with United Nations practice and requirements.

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PREFACE

The World Population Plan of Action, adopted by the United Nations World Population Conference at Bucharest in 1974, recommended that monitoring of population trends and policies "should be undertaken continuously as a specialized activity of the United Nations and reviewed biennially by the appropriate bodies of the United Nations system, beginning in 1977" (recommendation 107). This statement was reaffirmed at the International Conference on Population, held at Mexico City in 1984 (recommendation 88). The current monitoring report is the eighth in the series of reports prepared by the Secretariat of the United Nations in conformance with those recommendations: the first in 1977, and succeeding reports in 1979, 1981, 1983, 1987, 1989 and 1991. The regular biennial cycle was broken in 1985 when a short summary report was prepared, given the very short time available after the International Conference on Population in 1984.

The present report consists of three main parts. Following a very brief overview, part one presents a special report on refugees. Part two, "Population trends and policies," presents the results of the monitoring of population trends and policies in population growth and structure, fertility, mortality, population distribution and international migration. In part three, the role of population in relation to the environment is summarized.

The present report was prepared by the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat. Acknowledgements are due to the various United Nations offices, regional commissions and specialized agencies that helped directly or indirectly in the preparation of the monitoring report.

SOURCES, METHODS AND CLASSIFICATIONS

Global and regional data on demographic trends used in the present report are taken mostly from *World Population Prospects: The 1992 Revision* (United Nations publication, Sales No. E.93.XIII.7). Work on the report was done mostly in 1992 and 1993, using the data available at that time. Country data are taken from the same report, national sources or various United Nations sources, as appropriate. Population policy data are taken from the Population Policy Data Bank maintained by the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat, and in particular from the Seventh Population Inquiry among Governments, carried out throughout 1992 and 1993. As the quality of data varies considerably from country to country, depending upon the types and nature of the data, caution is advised in their interpretation.

In the case of the United Nations estimates and projections, the estimates were made by collecting, evaluating and adjusting, as necessary, all available data for the period 1950-1990. For the period 1990-2025, figures are mostly the result of projections from the year 1990, except for such cases where reliable, more recent data are available.

The countries and areas, which are identified as the statistical units by the Statistical Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat and are covered by the estimates and projections mentioned above, are grouped geographically into seven major areas: Africa; Asia; Europe; Latin America; Northern America; Oceania; and the former Union of Soviet Socialist Republics. Those major areas are further divided geographically into 22 regions. In addition, the regions are summarized, for statistical convenience, into two general groups, more developed and less developed, on the basis of demographic and socio-economic characteristics. The less developed regions include all regions of Africa, Asia (excluding Japan), Latin America and Oceania (excluding Australia and New Zealand). The more developed regions include all other regions plus the three countries excluded from the less developed regions. Other regional groupings also are used, as appropriate to the subject-matter.

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Explanatory notes

Symbols of United Nations documents are composed of capital letters combined with figures.

The following symbols have been used in the tables throughout this report:

Two dots (..) indicate that data are not available or are not separately reported.

An em dash (—) indicates that the amount is nil or negligible.

A hyphen (-) indicates that the item is not applicable.

A minus sign (–) before a figure indicates a decrease.

A point (.) is used to indicate decimals.

A slash (/) indicates a crop year or financial year, e.g., 1980/81.

Use of a hyphen (-) between dates representing years, e.g., 1980-1982, signifies the full period involved, including the beginning and end years.

Details and percentages in tables do not necessarily add to totals because of rounding.

Reference to "dollars" ($) indicates United States dollars, unless otherwise stated.

The term "billion" signifies a thousand million.

On 22 May 1990, Democratic Yemen and Yemen merged to form a single State. Since that date they have been represented as one Member of the United Nations with the name "Yemen". For some statistical data which predate the merger, it has been necessary to refer occasionally to "Yemen" and "Democratic Yemen".

Through accession of the German Democratic Republic to the Federal Republic of Germany with effect from 3 October 1990, the two German States have united to form one sovereign State. As from the date of unification, the Federal Republic of Germany acts in the United Nations under the designation "Germany". For some statistical data which predate the unification, it has been necessary to refer occasionally to the former States of the Federal Republic of Germany and the German Democratic Republic.

The area of the former State of Yugoslavia currently comprises the independent States of Bosnia and Herzegovina, Croatia, the Federal Republic of Yugoslavia, Slovenia and the former Yugoslav Republic of Macedonia. Unless otherwise indicated, data for Yugoslavia shown in this publication for the period beginning 27 April 1991 refer to the Federal Republic of Yugoslavia in terms of its boundaries as they exist from that date. Data for the period prior to 27 April 1992 refer to the former Socialist Federal Republic of Yugoslavia in terms of its boundaries as they existed prior to that date.

The former State of Czechoslovakia was dissolved on 31 December 1992 and became the independent States of the Czech Republic and Slovakia on 1 January 1993.

The area of the former Union of Soviet Socialist Republics currently comprises: (*a*) the three Baltic States (Estonia, Latvia and Lithuania); and (*b*) the 12 republics that have constituted themselves into the Commonwealth of Independent States (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Republic of Moldova, Russian Federation, Tadjikistan, Turkmenistan, Ukraine and Uzbekistan).

The group of least developed countries currently comprises 47 countries: Afghanistan, Bangladesh, Benin, Bhutan, Botswana, Burkina Faso, Burundi, Cambodia, Cape Verde, Central African Republic, Chad, Comoros, Djibouti, Equatorial Guinea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Maldives, Mali, Mauritania, Mozambique, Myanmar, Nepal, Niger, Rwanda, Samoa, Sao Tome and Principe, Sierra Leone, Solomon Islands, Somalia, Sudan, Togo, Tuvalu, Uganda, United Republic of Tanzania, Vanuatu, Yemen, Zaire and Zambia.

The following abbreviations have been used:

AIDS	acquired immunodeficiency syndrome
ASEAN	Association of South-East Asian Nations
CELADE	Centro Latinoamericano de Demografía
CIAV	International Support and Verification Commission
CIREFCA	International Conference on Central American Refugees
DHS	Demographic and Health Survey
FAO	Food and Agriculture Organization of the United Nations
GDP	gross domestic product
HIV	human immunodeficiency virus
IEC	information, education and communication
ILO	International Labour Organization

IMR	infant mortality rate
IRCA	Immigration Reform and Control Act (United States of America)
IUD	intra-uterine device
MCH	maternal and child health
MCH/FP	maternal and child health and family planning
OAU	Organization of African Unity
ODP	Orderly Departure Programme
OECD	Organisation for Economic Co-operation and Development
PAHO	Pan-American Health Organization
RENAMO	Resistencia Nacional Mozambicana (Mozambican National Resistance)
SOPEMI	Continuous Reporting System on Migration
TFR	total fertility rate
UNBRO	United Nations Border Relief Operation
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFPA	United Nations Population Fund
UNHCR	Office of the United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
UNITA	National Union for the Total Independence of Angola
UNRWA	United Nations Relief and Works Agency for Palestine Refugees in the Near East
WHO	World Health Organization

OVERVIEW

OVERVIEW

1. The total world population was estimated to be 5.5 billion in 1992. The annual increment during the early 1990s was estimated at approximately 93 million persons. During the final five years of the twentieth century, the annual increments are expected to peak at about 94 million. Nearly all of these increases, approximately 93 per cent, are anticipated to take place in the less developed regions.

2. The current global rate of population growth remains at 1.7 per cent per annum, unchanged since 1975. It is projected that this rate of growth will change little during the 1990s. At the end of the 1980s, the more developed regions grew at a rate of 0.6 per cent, less than one third of the growth rate of the less developed regions, which was 2.1 per cent per annum. The average rate of population growth for the least developed countries was even faster, 2.7 per cent for the period 1985-1990.

3. As of 1993, 21 countries, which account for about 3 per cent of the world total population, considered their population growth rates to be too low. In contrast, 83 countries, which represent 70 per cent of the world population, viewed their rates of population growth and, in particular, their fertility levels, as too high and have policies to reduce those rates. The remaining 86 countries considered their rates to be satisfactory.

4. Although average fertility and mortality rates at the global level continue to decrease, the pace of decline has slowed. The world fertility rate, for example, declined from 3.8 births per woman in 1975-1980 to 3.4 in 1985-1990 and is expected to decline further to 3.3 births in 1990-1995. Total fertility rates (TFR) for the more developed regions have fallen further below replacement levels. However, a number of countries in Northern Europe have experienced modest increases in their fertility rate. In the less developed regions, fertility decline is expected to pursue its past downward trend, with fertility rates decreasing from 4.6 to 3.9 during the periods 1975-1980 and 1985-1990. Concerning the least developed countries, their fertility is also showing signs of decline, from 6.6 to 6.0 births per woman for the same time-span. It should be noted, however, that although fertility rates are generally declining, the average annual number of births in the world has continued to rise. Between the periods 1975-1980 and 1985-1990, for example, the annual number of births increased from about 120 million to 137 million; and the projected annual number of births for 1990-1995 is 144 million.

5. Life expectancy at birth for the world increased from 46.1 years in 1950-1955 to 57.9 years in 1970-1975, an average gain of over half a year annually between the two periods. According to projected levels for 1990-1995, the expectation of life at birth will increase further by approximately seven years, reaching nearly 65 years by the middle of the 1990s. The differential in life expectancy at birth between more developed and less developed regions has narrowed considerably since 1950, decreasing from 25 years in 1950-1955 to 17 years in 1970-1975; and it is expected to decline further to 12 years in 1990-1995. These general trends in mortality are also reflected by infant and child mortality estimates. For example, by the late 1980s, the average infant mortality rate (IMR) for the more developed regions was 15 deaths per 1,000 live births. The corresponding IMRs for the less developed regions and the least developed countries were estimated at 76 and 120, respectively. In general, child mortality declined slightly more rapidly in Asia and Latin America than in Africa.

6. At mid-1990, 43 per cent (2.3 billion) of the world population lived in urban areas. With the urban population growing two and a half times faster than its rural counterpart, the level of urbanization is projected to rise to nearly 50 per cent by the year 2000, reaching close to 3 billion persons. Urbanization patterns differ markedly between the more developed and the less developed regions. The less developed regions are undergoing rapid urbanization, a process that is projected to continue well into the twenty-first century. Such trends are of major concern to most Governments. In 1992, for example, nearly three out of four Governments considered their patterns of population distribution to be unsatisfactory. Also, in many developing countries, population distribution policies are largely synonymous with measures to reduce or even reverse rural-urban migration, with the aim of regulating the growth of the primate city or other large metropolitan areas.

7. The international movement of people has continued to be an important demographic issue into the 1990s. Of particular importance is the migration of refugees and asylum-seekers; a special chapter in this publication is therefore devoted to that topic. Although most international migration flows occur between neighbouring countries, interregional migration, particularly that directed to developed countries, has been growing. It is estimated that the number of international migrants in the world, including refugees, is in excess of 125 million, about half of them in the developing countries. In recent years, the main receiving countries in the more developed regions registered a net migration intake of approximately 1.4 million persons per annum, about two thirds of whom originated in developing countries. The trend towards increased international population mobility has not generally been matched by the willingness of countries of destination to admit more documented migrants. Among developed countries, the percentage with policies to lower immigration is 39 per cent, as opposed to 34 per cent for developing countries. In addition, given that the pressures for migration are increasing in a number of developing countries, especially as their labour force continues to grow, undocumented or irregular migration is expected to rise. Overwhelmed by the relatively large numbers of undocumented immigrants and asylum-seekers, recipient countries have implemented measures to discourage such movements.

Part One

REFUGEES

INTRODUCTION

8. In the present report, special attention is given to an analysis of trends in the number of refugees in the different world regions so as to provide a factual basis for investigating their social and economic implications. Between 1985 and 1993, the number of refugees in the world increased from 8.6 million to about 19 million, and the increase has been particularly marked during recent years. At the level of major areas, the largest number of refugees is found in Asia, with Africa ranking second in the number of refugees it hosts. In comparison, Europe still hosts relatively small numbers of refugees, although it is currently providing asylum to a larger number than those present at the end of the Second World War.

9. The processes that have led to the continuous increase of the number of refugees, especially since 1985, have been momentous and have yet to run their course. In particular, the end of the cold war has been accompanied by an increase in the number of persons lodging asylum applications in developed countries. In the market economies of Europe, the number of applications for asylum increased from 67,000 in 1983 to nearly 700,000 in 1992.

10. The report documents changes in the number of refugees primarily during the 1980s and early 1990s. At the time of writing, the most recent information available for the world as a whole referred to early 1993. The situation in each region is discussed separately with the aid of tables and graphs providing summary statistics on refugees and asylum-seekers. Although the data are obtained from official sources, it is important to keep in mind that they must be interpreted with caution because their accuracy cannot be assured in every case.

I. REFUGEES

11. The number of refugees worldwide has continued to increase. According to the data from the Office of the United Nations High Commissioner for Refugees (UNHCR), there were 8.6 million refugees worldwide in early 1985, 14.9 million in early 1990 and about 19 million in early 1993. None of these figures includes Palestinian refugees, who fall under the responsibility of the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA). Their numbers increased from 2.1 million to 2.6 million between 1985 and 1992.

12. Asia was the major area hosting the largest number of refugees during most of the 1980s. By early 1993, there were 7.2 million non-Palestinian refugees in Asia, 44 per cent more than the 5 million present in 1985. Africa, with 5.4 million refugees in 1993, ranked second and had also recorded an impressive increase with respect to the 1985 figures: 84 per cent. In Latin America, a change of reporting practices to include internally and externally displaced persons in refugee-like situations led to a belated increase in the reported population in need of assistance between the mid- and the late 1980s. Between 1990 and 1993, however, that population declined by three fourths as a result of the peace process in Central America. Lastly, the refugee population in developed countries continued to grow steadily as a result of both the resettlement of refugees from abroad and the granting of refugee status to asylum-seekers. The data for developed countries, however, must be interpreted with some caution because most countries lack information on the number of refugees at any given time, especially when they grant immigrant status to bona fide refugees, and there is a growing tendency for countries to report not only Convention refugees (see box 1) but also persons granted permission to stay on humanitarian grounds.

BOX 1. WHO IS A REFUGEE?

According to United Nations instruments, namely, the 1951 Convention relating to the Status of Refugees and its 1967 Protocol, a refugee is any person who, "owing well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality and is unable or, owing to such fear, is unwilling to avail himself of the protection of that country; or who, not having a nationality and being outside the country of his former habitual residence, as a result of such events, is unable or, owning to such fear, is unwilling to return to it".[a] As of February 1992, 106 countries were parties to the 1951 Convention and/or the 1967 Protocol relating to the Status of Refugees. Among the countries hosting substantial numbers of refugees, Mexico, Pakistan and Thailand are not parties to either of those instruments.

It is clear that the definition of "refugee" incorporated in the Convention and the Protocol is limited to persons fearing a narrow range of human rights violations. The incompleteness of the Convention mandate has been the concern of many countries, particularly those in the developing world, which have often granted protection to persons that were not being persecuted on an individual basis nor strictly on the grounds laid down by the Convention. Many developed countries have also made allowance for the limited scope of the Convention by adopting explicit provisions that allow the granting of asylum on "humanitarian grounds".

At the regional level, the Organization of African Unity (OAU), through its 1969 Convention Regarding the Special Aspects of Refugee Problems in Africa, and the Organization of American States, through the 1984 Cartagena Declaration on Refugees, have taken concrete steps to expand the definition of "refugee". The OAU Convention, which is binding for countries that accede to it, extends protection to persons compelled to flee their country of nationality not only on the grounds established by the United Nations Convention but, in addition, because of external aggression, occupation, foreign domination or events seriously disturbing public order. The Cartagena Declaration places generalized violence, foreign aggression, internal conflicts, massive violations of human rights and other circumstances that have seriously disturbed public order on an equal footing with those incorporated in the United Nations Convention. The Declaration, however, is not binding.

[a] United Nations, *Treaty Series*, vol. 189, No. 2545, p. 150; see also ibid., vol. 606, No. 8791, p. 267.

A. AFRICA

13. With some 2.7 million refugees in 1980, Africa hosted the largest concentration of refugees in the world (table 1). Although in early 1993 it ranked second to Asia in terms of share of the refugee population in the world, the number of refugees on the continent grew steadily during the 1980s despite the successful implementation of several large-scale voluntary repatriation programmes carried out under the auspices of UNHCR. Although the refugee population in Africa appeared to have stabilized between 1980 and 1985, the increased incidence of internal conflict, civil unrest and instability, coupled with the persistence of drought and famine, contributed to important refugee outflows in several countries between 1985 and 1990. Thus, by early 1991, the refugee population in Africa had increased to 5.4 million, double the 1980 estimate, and it largely stabilized at that level until early 1993. Such a rapid growth of the refugee population has imposed severe burdens on the countries of asylum, whose weak economies are being strained further by significant declines in commodity prices, deteriorating terms of trade and very sizeable debt burdens.

14. The increasing scale of refugee movements in Africa is reflected by the growing number of countries hosting more than 100,000 refugees, which rose from 6 in 1980 to 7 in 1985 and then to 14 by early 1991 (table 2). Eastern Africa has continued to host the largest concentration of refugees in the continent. In 1980, about two thirds

TABLE 1. NUMBER OF REFUGEES IN AFRICA, BY COUNTRY OF ASYLUM AND COUNTRY OF ORIGIN, 1980-1993

Country of asylum	*Country or area of origin*	*Early 1980*	*Early 1985*	*Early 1990*	*Early 1991*	*Early 1993*
Algeria	Mali/Niger	—	..	..	..	50 000
	Western Sahara	—	165 000	165 000	165 000	165 000
	Other	—	2 000	5 000	4 100	4 300
	TOTAL	—	167 000	170 000	169 100	219 300
Angola	Namibia	35 000	70 000	2 100	245	..
	South Africa	1 000	9 000	1 145	2 100	200
	Zaire	20 000	13 200	9 654	9 212	10 800
	TOTAL	56 000	92 200	12 899	11 557	11 000
Benin	Chad	—	800	858	450	200
	Other	—	..	..	..	100
	TOTAL	—	800	858	450	300
Botswana	Angola, South Africa, Namibia	900	1 250	..	..	200
	Zimbabwe	22 400	3 750	..	..	..
	Other	..	..	850	1 100	300
	TOTAL	23 300	5 000	850	1 100	500
Burkina Faso	Other (Ghana)	—	100	357	210	5 700
Burundi	Rwanda	50 000	228 000	..	..	245 600
	Rwanda/Uganda	—	2 600	—	—	—
	Uganda	..	6 000	..	..	0
	Zaire	..	20 000	..	..	25 800
	Other	..	..	267 455	268 403	100
	TOTAL	50 000	256 600	267 455	268 403	271 700
Cameroon	Chad	..	13 500	48 524	49 476	41 700
	Other	10 000	200	106	400	500
	TOTAL	10 000	13 700	48 630	49 876	42 200
Central African Republic	Chad	1 000	42 000	2 373	1 153	1 200
	Sudan	..	..	..	3 066	17 700
	Other	..	..	..	65	100
	TOTAL	1 000	42 000	2 373	4 284	19 000
Congo	Cameroon	—	1 000	59	100	..
	Central African Republic	—	..	305	100	300
	Chad	—	..	2 321	550	2 200
	Rwanda	—	..	153	100	..
	Zaire	—	..	340	1 600	400
	Other	—	..	..	..	6 600
	TOTAL	—	1 000	3 178	2 450	9 500
Côte d'Ivoire	Liberia	—	—	70 000	272 284	173 700
	Other	—	—	..	..	400
	TOTAL	—	—	70 000	272 284	174 100
Djibouti	Ethiopia	28 800	16 800	1 450	1 450	8 000
	Somalia	..	..	61 500	61 500	20 000
	TOTAL	28 800	16 800	62 950	62 950	28 000
Egypt	Ethiopia	..	..	..	..	400
	Somalia	..	..	..	..	4 900
	Other	5 000	5 500	1 740	1 986	300
	TOTAL	5 000	5 500	1 740	1 986	5 500
Ethiopia	Somalia	..	..	334 808	385 000	406 100
	Sudan	11 000	59 100	384 989	387 585	25 600
	Other	..	..	369	179	100
	TOTAL	11 000	59 100	720 166	772 764	431 800
Gabon	Equatorial Guinea	30 000	—	..	..	..
	Other	..	—	300	417	300
	TOTAL	30 000	—	300	417	300
Gambia	Liberia	—	—	—	—	300
	Senegal	—	—	—	—	3 300
	TOTAL	—	—	—	—	3 600
Ghana	Southern Africa	200	—	..	..	..
	Liberia	..	—	..	..	12 000
	Other	..	—	82	8 000	100
	TOTAL	200	—	82	8 000	12 100
Guinea	Liberia	—	—	80 000	342 463	478 500
	Sierra Leone	—	—	..	96 708	..
	TOTAL	—	—	80 000	439 171	478 500

TABLE 1 *(continued)*

Country of asylum	*Country or area of origin*	*Early 1980*	*Early 1985*	*Early 1990*	*Early 1991*	*Early 1993*
Guinea-Bissau	Senegal	—	—	—	—	12 200
Kenya	Ethiopia	—	1 756	2 831	4 912	68 600
	Ethiopia, Rwanda	2 300	—	—	—	..
	Mozambique	..	175	..	..	..
	Rwanda	—	1 772	1 966	1 968	..
	Sudan	..	..	..	..	21 800
	Somalia	..	..	..	..	285 600
	Uganda	3 500	3 875	6 047	6 049	3 300
	Other	..	471	1 386	1 487	22 600
	TOTAL	5 800	8 049	12 230	14 416	401 900
Lesotho	South Africa	500	11 500	4 000	4 000	100
Liberia	Sierra Leone	—	—	..	—	100 000
	Other	—	—	244	—	..
	TOTAL	—	—	244	—	100 000
Malawi	Mozambique	—	—	822 000	927 000	1 058 500
Mali	Mauritania	—	—	..	..	13 100
	Other	—	—	73	13 000	..
	TOTAL	—	—	73	13 000	13 100
Mauritania	Senegal	—	—	10 000	60 000	..
	Other	—	—	..	..	37 500
	TOTAL	—	—	10 000	60 000	37 500
Morocco	Other	—	800	800	800	300
Mozambique	Latin America	—	281	—	—	..
	South Africa	—	419	—	—	200
	Zimbabwe	150 000	—	—	—	..
	Other	—	121	366	434	100
	TOTAL	150 000	821	366	434	300
Namibia	Other	—	—	—	—	200
Niger	Chad	—	—	—	—	3 400
	Other	—	—	—	—	300
	TOTAL	—	—	—	—	3 700
Nigeria	Chad	..	4 000	..	..	1 400
	Ghana	..	350	..	..	100
	Liberia	..	..	..	..	2 900
	South Africa	500	..	..	..	..
	Other	..	340	3 780	3 566	300
	TOTAL	500	4 690	3 780	3 566	4 800
Rwanda	Burundi	..	18 600	20 421	23 587	25 200
	Burundi/Uganda	7 800	—	—	—	—
	Uganda	..	30 400	..	..	..
	TOTAL	7 800	49 000	20 421	23 587	25 200
Senegal	Guinea-Bissau	..	5 200	5 000	5 000	5 000
	Mauritania	..	..	48 236	53 000	66 500
	Other	5 000	..	100	115	100
	TOTAL	5 000	5 200	53 336	58 115	71 600
Sierra Leone	Other	—	200	35	125 000	5 900
Somalia[a]	Ethiopia	1 275 000	700 000	600 000	600 000	500
Sudan	Chad	7 000	1 000	20 000	20 000	16 000
	Ethiopia	390 000	484 000	362 500	370 000	703 500
	Uganda	39 000	200 000	2 500	..	3 800
	Zaire	5 000	5 000	..	..	2 300
	TOTAL	441 000	690 000	385 000	390 000	725 600
Swaziland	Mozambique	..	..	28 595	34 742	48 100
	South Africa	5 047	6 900	6 274	7 294	7 400
	Other	..	1 100	39	38	100
	TOTAL	5 047	8 000	34 908	42 074	55 600
United Republic of Tanzania	Burundi	129 500	153 500	154 700	154 689	149 500
	Mozambique	..	..	72 000	71 999	75 200
	Rwanda	26 000	..	22 300	22 297	50 000
	Uganda	4 000	2 500	..	..	..
	Zaire	..	15 500	16 000	15 943	16 000
	Other	500	7 000	1 500	256	1 500
	TOTAL	160 000	178 500	266 500	265 184	292 100

TABLE 1 *(continued)*

Country of asylum	*Country or area of origin*	*Early 1980*	*Early 1985*	*Early 1990*	*Early 1991*	*Early 1993*
Togo	Ghana	—	1 450	..	..	3 200
	Liberia	—	..	..	..	100
	Other	—	300	3 401	477	100
	TOTAL	—	1 750	3 401	477	3 400
Tunisia	Other	—	200	200	200	100
Uganda	Rwanda	78 000	119 650	74 372	82 200	85 800
	Sudan	..	..	53 769	58 700	92 100
	Zaire	34 000	31 350	1 250	1 300	15 600
	Other	400	..	599	200	2 800
	TOTAL	112 400	151 000	129 990	142 400	196 300
Zaire	Angola	215 000	262 700	310 092	308 242	198 000
	Burundi	11 000	..	—	—	9 500
	Rwanda	22 000	..	—	—	50 900
	Rwanda/Burundi	—	—	25 294	25 889	—
	Sudan	..	..	..	10 900	109 400
	Uganda	50 000	..	4 000	10 099	21 100
	Other	1 000	23 500	1 303	1 305	2 300
	TOTAL	299 000	317 000	340 689	356 435	391 100
Zambia	Angola	26 000	75 000	98 000	99 000	101 800
	Malawi	..	..	250	..	..
	Mozambique	..	..	22 100	23 000	26 300
	Namibia	5 500	7 300	1 900	..	..
	South Africa	..	3 000	3 000	3 200	600
	Uganda	..	..	1 200	..	..
	Zaire	..	9 500	9 000	9 100	..
	Zimbabwe	19 000	..	..	..	..
	Other	..	1 700	1 650	3 700	13 400
	TOTAL	50 500	96 500	137 100	138 000	142 100
Zimbabwe	Mozambique	—	46 000	175 000	182 302	136 600
	South Africa	—	440	350	375	..
	Other	—	..	..	..	600
	TOTAL	—	46 440	175 350	182 677	137 200
Africa (other countries)		—	—	—	—	800
	GRAND TOTAL	2 727 847	2 929 450	4 442 261	5 412 367	5 393 200

Sources: Office of the High Commissioner for Refugees, "Report on UNHCR activities in 1984-85 and proposed voluntary funds programmes and budgets for 1985" (A/AC.96.657); "UNHCR activities financed by voluntary funds: report for 1989-90 and proposed programmes and budget for 1991" (A/AC.96/751), parts I and V; ibid., "Report for 1990-91 and proposed programmes and budget for 1992" (A/AC.96/774), parts I and V; United Nations High Commissioner for Refugees, *The State of the World's Refugees 1993: the Challenge of Protection* (Middlesex, United Kingdom, Penguin Books, 1993).

NOTE: According to sources at the Office of the United Nations High Commissioner for Refugees, the figures presented here are provided mainly by Governments of asylum countries based on their own records and methods of estimation.

[a]The figures reported for 1990 and 1991 were adopted for planning purposes and may not represent the true size of the refugee population in Somalia.

(1.9 million) of the African refugee population were concentrated in Eastern Africa, with Somalia hosting the largest number of refugees in the continent (1.3 million). Although the emergence of new areas of conflict has led to the growth of sizeable refugee populations in other parts of Africa, by early 1993, Eastern Africa was still hosting more than half of all refugees in the continent (3.0 million). As of early 1993, Malawi was hosting the largest number of refugees in Africa, 1,059,000 Mozambican refugees that had been fleeing conflict exacerbated by drought since 1985. Ethiopia and Kenya, with over 400,000 refugees each, were also major countries of asylum. Somalia, however, which had been hosting over half a million refugees throughout the 1980s, experienced their rapid outflow as civil war spread through the country.

15. The late 1980s and early 1990s witnessed significant and unprecedented refugee movements in Western Africa. A decade earlier, Senegal had been hosting the largest refugee population in the region, an estimated 5,000. Although it was estimated that about one fourth of the Guinean population (1 million) was in exile at the end of the 1970s, the vast majority were living outside of Africa (United Nations, 1982). In addition, although in 1980 the civil war in Chad had led to an influx of some 100,000 Chadian refugees into Nigeria, the 1981 declaration of amnesty by the Government of Chad made possible the repatriation of the vast majority by March 1982.

16. In 1989, ethnic conflict at the border between Senegal and Mauritania led to the eventual movement of some 53,000 Mauritanian refugees into Senegal and an additional 10,000 into Mali (United States Committee for Refugees, 1991). As a result of the civil war raging in Liberia since December 1989, Côte d'Ivoire, Guinea and Sierra Leone became for the first time important countries of first asylum. By early 1993, those countries were hosting nearly 658,000 Liberian refugees. Although a cease-fire between the Liberian warring factions was declared in November 1990 and it held during most of 1991, a political resolution of the conflict has been slow in coming and security has not yet returned to Liberia. Furthermore, in March 1991 the Liberian conflict spread into the southern and eastern provinces of Sierra Leone, generating an influx of some 97,000 refugees from Sierra Leone into Guinea. By early 1993, there were 478,500 refugees in Guinea, mostly from Liberia.

TABLE 2. AFRICAN COUNTRIES OF ASYLUM HOSTING AT LEAST 100,000 REFUGEES, 1980-1993

Rank	Country of asylum	Number of refugees
	A. *Early 1980*	
1.	Somalia	1 275 000
2.	Sudan	441 000
3.	Zaire	299 000
4.	United Republic of Tanzania	160 000
5.	Mozambique	150 000
6.	Uganda	112 400
	SUBTOTAL	2 437 400
	TOTAL	2 727 847
	Percentage of total	89.4
	B. *Early 1985*	
1.	Somalia	700 000
2.	Sudan	690 000
3.	Zaire	317 000
4.	Burundi	256 600
5.	United Republic of Tanzania	178 500
6.	Algeria	167 000
7.	Uganda	151 000
	SUBTOTAL	2 460 100
	TOTAL	2 929 450
	Percentage of total	84.0
	C. *Early 1990*	
1.	Malawi	822 000
2.	Ethiopia	720 166
3.	Somalia	600 000
4.	Sudan	385 000
5.	Zaire	340 689
6.	Burundi	267 455
7.	United Republic of Tanzania	266 500
8.	Zimbabwe	175 350
9.	Algeria	170 000
10.	Zambia	137 100
11.	Uganda	129 990
	SUBTOTAL	4 014 250
	TOTAL	4 442 261
	Percentage of total	90.4
	D. *Early 1991*	
1.	Malawi	927 000
2.	Ethiopia	772 764
3.	Somalia	600 000
4.	Guinea	439 171
5.	Sudan	390 000
6.	Zaire	356 435
7.	Côte d'Ivoire	272 284
8.	Burundi	268 403
9.	United Republic of Tanzania	265 184
10.	Zimbabwe	182 677
11.	Algeria	169 100
12.	Uganda	142 400
13.	Zambia	138 000
14.	Sierra Leone	125 000
	SUBTOTAL	5 048 418
	TOTAL	5 412 367
	Percentage of total	93.3
	E. *Early 1993*	
1.	Malawi	1 058 500
2.	Sudan	725 600
3.	Guinea	478 500
4.	Ethiopia	431 800
5.	Kenya	401 900
6.	Zaire	391 100
7.	United Republic of Tanzania	292 100
8.	Burundi	271 700
9.	Algeria	219 300
10.	Uganda	196 300
11.	Côte d'Ivoire	174 100
12.	Zambia	142 100
13.	Zimbabwe	137 200
14.	Liberia	100 000
	SUBTOTAL	5 020 200
	TOTAL	5 393 200
	Percentage of total	93.1

Source: Derived from the data presented in table 1.

17. Some of the refugee populations in Africa have been uprooted for many years. Thus, most of the estimated 1.3 million Ethiopian refugees that were residing in Somalia in 1980 had moved to that country as a result of the Eritrean and Ogaden conflicts that began in 1962 when Eritrea came under Ethiopian rule. Similarly, most of the Rwandese refugees in Burundi, Uganda and the United Republic of Tanzania and those from Burundi in the United Republic of Tanzania had been uprooted since 1972-1973, when ethnic conflict between the Tutsi and the Hutu populations in Rwanda and Burundi forced them to flee. The refugees from Guinea-Bissau in Senegal and at least half of the Angolan refugees in Zaire had also left their country in the early 1970s when independence movements from Portuguese colonial rule began.

18. Somalia, the Sudan, Uganda, the United Republic of Tanzania and Zaire were important countries of asylum during the entire decade (table 2). The significant decline in the number of refugees hosted by Somalia during the first part of the decade reflects a change in reporting practices rather than a true reduction in the refugee population in the country: since 1985 the figures cited have been used for planning purposes only and are not meant to reflect actual numbers of refugees. Although there had been civil war in Somalia for several years, in 1988 the offensive by the Somali National Movement in northern Somalia led to the outflow of some 350,000 Somalis to Ethiopia and the return of most Ethiopian refugees in that region. During 1990, several rebel groups gained ground in central and southern Somalia. Their offensive on the capital, Mogadishu, culminated in January 1991 when the city came under the authority of the United Somali Congress. However, the Congress failed to gain effective control of the city and civil war continued to rage in most of the country. Continued insecurity exacerbated by drought not only compelled many Somalis to seek asylum in neighbouring countries but also led to the return of many Ethiopian refugees to their country. By June 1991, an estimated 200,000 Ethiopian returnees were receiving UNHCR assistance in Ethiopia (UNHCR, 1991, part I); and by early 1993, only 500 refugees were reported to remain in Somalia.

19. During the 1980s, the Sudan registered a significant decline of the refugee population, mostly as a result of the repatriation of Ugandan refugees. Between early 1991 and 1993, however, the number of refugees in the Sudan increased markedly, owing to the influx of Ethiopians escaping continued ethnic violence and drought. In Zaire during the 1980s, the refugee population grew mainly because of the increase in the number of Angolans that had found asylum in that country. During the early 1990s, the

TABLE 3. MAIN COUNTRIES OR AREAS OF ORIGIN FOR THE REFUGEE POPULATION IN AFRICA, 1980-1993

Rank	Country or area of origin	Number of refugees
	A. *Early 1980*	
1.	Ethiopia	1 693 800
2.	Angola	241 000
3.	Zimbabwe	191 400
4.	Rwanda	176 000
	SUBTOTAL	2 302 200
	TOTAL	2 727 847
	Percentage of total	84.4
	B. *Early 1985*	
1.	Ethiopia	1 203 000
2.	Rwanda	349 400
3.	Angola	337 000
4.	Uganda	273 600
5.	Burundi	172 100
6.	Western Sahara	165 000
	SUBTOTAL	2 500 100
	TOTAL	2 929 450
	Percentage of total	85.3
	C. *Early 1990*	
1.	Mozambique	1 119 700
2.	Ethiopia	966 800
3.	Sudan	438 800
4.	Angola	408 100
5.	Somalia	396 300
6.	Rwanda	366 200
	SUBTOTAL	3 695 900
	TOTAL	4 442 261
	Percentage of total	83.2
	D. *Early 1991*	
1.	Mozambique	1 239 043
2.	Ethiopia	976 362
3.	Liberia	614 747
4.	Sudan	460 251
5.	Somalia	446 500
6.	Angola	407 242
7.	Rwanda	400 857
	SUBTOTAL	4 545 002
	TOTAL	5 412 367
	Percentage of total	86.7
	E. *Early 1993*	
1.	Mozambique	1 344 700
2.	Ethiopia	781 000
3.	Somalia	716 600
4.	Liberia	667 500
5.	Rwanda	432 300
6.	Angola	299 800
7.	Sudan	266 600
	SUBTOTAL	4 508 500
	TOTAL	5 393 200
	Percentage of total	83.6

Source: Derived from the data presented in table 1.

NOTE: In estimating the total number of refugees originating in Rwanda, it was assumed that all those reported by Burundi for early 1990 were of Rwandese origin.

number of Angolan refugees declined but that of refugees from the Sudan increased rapidly as their country was seized by conflict. In the United Republic of Tanzania, the size of most refugee groups remained relatively stable but the number of Mozambican refugees grew significantly during the late 1980s; and in Uganda, declines in the refugee populations of Rwandese and Zairian origin were largely counterbalanced by increases in those of Sudanese origin.

20. During the 1980s, there were significant changes in the origin of refugees in Africa. According to table 3, in 1980 four countries were the source of five out of every six refugees: Ethiopia; Angola; Zimbabwe; and Rwanda, in order of importance. By 1985, the successful repatriation of Zimbabwean refugees to an independent Zimbabwe reduced their numbers to fewer than 4,000, but the refugee populations originating in Burundi and Uganda increased substantially. Consequently, in 1985 six countries or areas — Ethiopia, Rwanda, Angola, Uganda, Burundi and Western Sahara — accounted for 85 per cent of the refugees in Africa (see table 3). During 1985-1989, the successful repatriation of Ugandan refugees reduced their numbers to about 16,000, but in Mozambique, Somalia and the Sudan political instability and drought led to massive refugee outflows. By 1990, those countries had joined the ranks of the major refugee sources on the continent, as is shown in table 3.

21. During the 1980s, Ethiopia ranked consistently among the two most important sources of refugees in Africa. The apparent decline in the number of Ethiopian refugees between 1980 and 1985 was mostly due to the change in reporting practices with regard to the number of refugees in Somalia. During 1985-1990, repatriation was largely responsible for the declining number of Ethiopian refugees. However, given the unstable situation in both Ethiopia and its neighbouring countries, successful repatriation drives were often counterbalanced by further refugee outflows. Thus, although the Ethiopian refugee population at Djibouti declined from 17,000 in 1986 to 1,500 by early 1991, the collapse of the Ethiopian Government in 1991 led to a further influx of some 15,000 Ethiopians into Djibouti. Kenya also recorded an influx of some 10,000 Ethiopians during the first half of 1991 and a further 3,000 Ethiopian refugees were reported to have entered Kenya from Somalia by the end of May 1991 (UNHCR, 1991, part I). The Sudan also saw the number of Ethiopian refugees in its territory rise rapidly, to reach 703,500 in 1993. That number, however, includes 530,000 Eritreans that were expected to return to their newly independent country (United States Committee for Refugees, 1993). Some of the increase in the number of Ethiopian refugees in Eastern African countries was associated with their sharp decrease in Somalia, where only 500 were left as of early 1993.

22. Angola and Rwanda also ranked consistently among the main countries of origin of refugee outflows in Africa during the 1980s. Refugee outflows from Angola date from the 1970s, when the movement to secure independence from Portuguese rule was followed by conflict between the independent Angolan Government and supporters of the National Union for the Total Independence of Angola (UNITA). By early 1991, most Angolan refugees were in Zaire (308,000) and Zambia (99,000). The Angolans in Zaire had been allowed to resettle, especially in Bas-Zaire and the south-western part of Shaba Province. Although the peace process in Angola had raised hopes for their eventual return, the eruption of civil conflict in October 1992 resulted in the suspension of repatriation operations. By early 1993, nearly 300,000 Angolans were still outside the country. The outflow of refugees from Rwanda also began during the 1970s. Prolonged ethnic strife made their numbers grow, particularly during the early 1980s. By 1993, Rwandese refugees were mainly found in neighbouring Burundi (246,000) and in Uganda (86,000). The severe eth-

nic conflict that arose in Rwanda in 1994 greatly increased the number of refugees of Rwandese origin in Africa.

23. Towards the end of the 1980s, Mozambique became the major source of refugees in Africa. The insecurity that derived from the activities of the Mozambican National Resistance (RENAMO) and was exacerbated by natural disasters forced over 2 million people to leave the country. Most found asylum in Malawi, which became one of the major refugee-receiving countries in the region. As a result, in 1987 the Government of Malawi acceded to the 1951 Convention and the 1967 Protocol relating to the Status of Refugees (United Nations, *Treaty Series*). Following accession, the presence of UNHCR in Malawi was formalized and an eligibility committee for the determination of refugee status was set up (United Nations, 1992). As of early 1993, a total of 1.3 million Mozambican refugees had found asylum in neighbouring countries.

24. Since 1982, the number of refugees originating in the Sudan has been increasing steadily. The majority found asylum in Ethiopia, where their numbers grew from 11,000 in 1982 to some 59,000 in 1985 and then increased sharply to reach 385,000 in 1990. By early 1993, there were still 267,000 Sudanese refugees in Africa, mostly in Uganda and Zaire. In contrast, the outflow of sizeable numbers of refugees from Somalia is only recent, following the outbreak of civil war in the country. By 1991, an estimated 447,000 Somali refugees had found asylum in Ethiopia (385,000) and Djibouti (62,000). In 1992, a combination of anarchy, violence and drought produced one of the worst humanitarian disasters in recent history, causing the flight of yet more refugees. By early 1993, there were an estimated 716,000 Somali refugees in Africa, mostly in Ethiopia (406,000) and Kenya (286,000).

25. Among the three durable solutions for refugee situations, resettlement in third countries has rarely been possible for African refugees. The main countries of overseas resettlement have generally adopted relatively low quotas for refugees from Africa. Thus, since the 1980 Refugee Act was adopted by the United States of America, no more than 3,500 resettlement places have been granted annually to African refugees; and, since 1983, Canada has adopted a planning level of only 1,000 places for the resettlement of refugees from Africa. The Australian resettlement quota for African refugees has also been low: 220 per annum (Rogge and Akol, 1989). Voluntary repatriation has therefore been the most widely adopted durable solution for refugees in Africa. It is estimated that more than 2 million refugees have been repatriated since 1980.

26. Table 4 presents data on the major repatriations that have occurred with UNHCR assistance or awareness since 1980. Although a number of repatriation drives have involved refugees originating in the major source countries in Africa, only a few have been successful in reducing their refugee populations to a few thousand. The first such success involved the repatriation of over 100,000 Zimbabweans during 1980-1981 in preparation for independence (Rogge and Akol, 1989). That exercise resulted in a sharp drop of the refugee populations hosted by Botswana and Mozambique, and, to a lesser extent, Zambia. The repatriation of Ugandan refugees that began after the change of Government in July 1985 was also successful in reducing sharply the number of Ugandan refugees in the continent. The spontaneous return flows from Burundi, Rwanda and the United Republic of Tanzania were supplemented by those from the Sudan and Zaire organized under the auspices of UNHCR during 1987-1988. The latter effort involved the repatriation of about 166,000 refugees from the Sudan and over 10,000 from Zaire. Given its success, the programme for the repatriation of Ugandan refugees was formally ended in March 1989 (United Nations, 1992). More recently, the repatriation of some 43,500 Namibians from Angola and Zambia in 1989, in preparation for the independence of Namibia, was also successful in reducing significantly the number of Namibian refugees on the continent.

27. In contrast, the various repatriation flows of Angolans and Ethiopians documented in table 4 have not been successful in reducing the refugee populations originating in those countries, in so far as repatriation has often been counterbalanced by further outflows. The case of Chad is also illustrative of a very fluid situation in which refugee movements have been characterized by rapid displacements of considerable numbers of people followed, within relatively short periods, by massive repatriation drives. Thus, the change of Government in Chad in 1979 led to the influx of at least 200,000 Chadian refugees into Cameroon and Nigeria. Following the declaration of amnesty in July 1981, most of them were repatriated by March 1982. In 1984 when drought struck, new influxes of Chadian refugees were registered in Cameroon, the Central African Republic and the Sudan, and between 1985 and 1986, the number of Chadian refugees in Africa increased from about 61,000 to 192,000 because of renewed conflict. A second amnesty in 1985 gave rise to the return flow of about 120,000 persons by mid-1987.

28. In 1990, several repatriation programmes were interrupted by conflict. Security problems at the border between Chad and the Sudan and political instability in Ethiopia adversely affected the prospects for the continued repatriation of Chadian and Ethiopian refugees (UNHCR, 1990[a]). In Southern Africa, the Tripartite Commission consisting of UNHCR and the Governments of Mozambique and Malawi continued to examine the possibilities for the eventual repatriation of Mozambican refugees. Such repatriation, however, depends upon the success of peace negotiations between RENAMO and the Government of Mozambique which, at the time of writing, was still uncertain.

29. In 1991, a number of developments were considered to have improved the prospects for the voluntary repatriation of refugees in Africa. The cease-fire agreement signed on 31 May 1991 between the Popular Movement for the Liberation of Angola and UNITA could make possible the repatriation of at least 300,000 Angolan refugees from Zaire and Zambia. Prospects for the repatriation of Ethiopians improved as of May 1991, when relative political stability returned to northern Ethiopia and a 1993 referendum on the independence of Eritrea was envisaged. An agreement between UNHCR and the Government of South Africa, concluded on 4 September 1991, was expected to lead to the voluntary repatriation of some 20,000 South African refugees, mostly from Lesotho, Swaziland and Zambia. Under the agreement, persons granted amnesty would be allowed to return to South Africa "without risk of arrest, detention, imprisonment or legal proceedings whether civil or criminal in respect of any political offence" (Berthiaume, 1991, p. 24). By March 1992, however, it was apparent that fewer refugees than anticipated would repatriate voluntarily because many had settled abroad and were deterred from returning to South Africa by the bleak socio-economic conditions there, including an unemployment rate of about 40 per cent, an annual inflation rate of more than 15 per cent (Keats, 1992), political uncertainty and increasing crime and violence throughout the country. Indeed, the last factor had already led to a new wave of South African asylum-seekers arriving in neighbouring

countries since mid-1990 (UNHCR, 1991, part I). In Mozambique, the Peace Agreement signed between the President of the Republic of Mozambique and the leader of RENAMO in October 1992 put an end to the devastating civil war that the country had been experiencing (United Nations, 1993[c]) and opened the door for the eventual repatriation of the largest refugee population in Africa.

B. Asia

30. In early 1993, Asia was hosting the largest concentration of refugees in the world: 7.2 million. In addition, 2.6 million Palestinian refugees were registered with UNRWA as of 30 June 1992. The number of Palestinian refugees had increased by approximately 500,000 since 1985 (table 5).

31. During the 1980s, the increasing numbers of refugees in Asia derived mostly from the massive outflow of Afghan refugees to the Islamic Republic of Iran and to Pakistan. Between 1980 and 1991, the Afghan refugee population increased from 400,000 to about 6,200,000. Despite the hopes for repatriation raised by the signature of the Geneva Accords in April 1988 and the completion of Soviet troop withdrawal from Afghanistan by February 1989, repatriation prospects have been jeopardized by continued armed conflict in the country, especially after the fall of the Government in early 1992. Although the number of Afghan refugees in Pakistan declined by about 87,000 from 1990 to 1991 (table 6), nearly 20,000 new arrivals were registered in Pakistan during the first half of 1991 as a result of renewed fighting in Afghanistan (UNHCR, 1991, part I). The seizure

TABLE 4. SCALE AND DIRECTION OF MAJOR REFUGEE REPATRIATIONS IN AFRICA, 1980-1990

Period	*To country of origin*	*From country of asylum*	*Number repatriating*
1980-1981	Zimbabwe	Botswana, Mozambique, Zambia	115 000
	Angola	Zaire	50 000
1981-1982	Chad	Cameroon, Sudan, various	150 000
	Ethiopia	Various	110 000
	Angola	Zaire	46 000
	Zaire	Burundi	20 650
1982-1983	Ethiopia	Various	126 000
	Uganda	Zaire	15 000
	Chad	Nigeria, Sudan	5 500
1983-1984	Uganda	Sudan, Zaire	200 000
	Ethiopia	Djibouti	35 000
	Zaire	Burundi	2 062
	Chad	Sudan	1 000
1984-1985	Ethiopia	Djibouti, Sudan	176 200
	Uganda	Sudan, Zaire	20 633
	Zaire	Angola	6 800
	Rwanda	United Republic of Tanzania	2 000
1985-1986	Ethiopia	Djibouti, Sudan	128 475
	Uganda	Sudan, Zaire	18 151
	Zaire	Angola	6 800
	Rwanda	United Republic of Tanzania	2 000
1986-1987	Ethiopia	Sudan	150 000
	Uganda	Kenya, Rwanda, Sudan, Zaire	82 740
	Chad	Central African Republic	19 775
1987-1988	Ethiopia	Djibouti, Somalia, Sudan	148 223
	Uganda	Sudan, Zaire	106 000
	Chad	Central African Republic, Sudan	31 932
	Sudan	Kenya	1 400
1988-1990	Burundi	Rwanda	54 000
	Namibia	Angola, Zambia, various	43 500
	Angola	Zaire	6 500
	Various	Zambia	6 500
	Chad	Cameroon, Central African Republic, Nigeria	6 100
	Mozambique	Malawi	3 500
	Zaire	Angola	3 000
	Ethiopia	Somalia	2 000

Sources: John Rogge and Joshua O. Akol, "Repatriation: its role in resolving Africa's refugee dilemma", *International Migration Review* (Staten Island, New York), vol. 23, No. 2 (Summer), pp. 184-200; Office of the United Nations High Commissioner for Refugees, "UNHCR activities financed by voluntary funds: report for 1988-89 and proposed programmes and budget for 1990" (A/AC.96/724), part I; ibid., "Report for 1989-90 and proposed programmes and budget for 1991" (A/AC.96/751), part I; ibid., "Report for 1990-91 and proposed programmes and budget for 1992" (A/AC.96/774), part I.

of Kabul by the Mujahedin in April 1992 triggered a massive repatriation of Afghan refugees from Pakistan, thus reducing the number of refugees in that country by about half between 1991 and 1993 (table 6). Because of the renewed fighting and political instability, however, nearly 4.5 million Afghan refugees were still living in the Islamic Republic of Iran (2.9 million), Pakistan (1.6 million), India and Tajikistan, representing the largest refugee population in the world as of early 1993.

32. The Iraqi invasion of Kuwait in August 1990 led to major population dislocations. Although the majority of persons moving in the early stages of the conflict were third-country nationals that had been working in Iraq or Kuwait on a temporary basis and who did not qualify for refugee status under international law, their large numbers posed problems akin to those faced by refugees. In total, about 1 million persons left Kuwait and Iraq during 1990. Migration ceased when the allied coalition led by the United States of America entered the conflict in January 1991. The aftermath of the conflict brought about massive outflows of Iraqis fleeing attacks by Iraqi troops attempting to reassert Government authority over the northern, north-eastern and southern areas of the country. By May 1991, some 1.4 million Iraqis had

TABLE 5. NUMBER OF PERSONS REGISTERED BY THE UNITED NATIONS RELIEF AND WORKS AGENCY FOR PALESTINE REFUGEES IN THE NEAR EAST AS OF 30 JUNE OF EACH YEAR, 1980-1992[a]

Field	*1980*	*1985*	*1990*	*1991*	*1992*
Lebanon	226 554	263 599	302 049	310 585	319 427
Syrian Arab Republic	209 362	244 626	280 731	289 923	299 207
Jordan[b]	716 372	799 724	929 097	960 212	1 010 719
West Bank[b]	324 035	357 704	414 298	430 083	459 149
Gaza Strip	367 995	427 892	496 339	528 684	560 207
TOTAL	1 844 318	2 093 545	2 422 514	2 519 487	2 648 707

Source: United Nations, "Report of the Commissioner-General of the United Nations Relief and Works Agency for Palestine Refugees in the Near East (1 July 1991–30 June 1992)", *Official Records of the General Assembly, Forty-sixth Session, Supplement No. 13* (A/46/13).

[a]These statistics are based on UNRWA registration records, which are updated continually. The number of registered refugees present in the UNRWA area of operations, however, is almost certainly less than the population recorded.

[b]In this table, the term "West Bank" refers to the occupied West Bank of the Hashemite Kingdom of Jordan and the term "Jordan" refers to the Hashemite Kingdom of Jordan excluding the occupied West Bank.

TABLE 6. NUMBER OF REFUGEES IN ASIA, BY COUNTRY OR AREA OF ASYLUM AND COUNTRY OF ORIGIN, 1980-1993

Country of asylum	*Origin*	*Early 1980*	*Early 1985*	*Early 1990*	*Early 1991*	*Early 1993*
Afghanistan	Tajikistan	—	—	—	—	60 000
Bangladesh	Various	—	—	93	255	245 000
China	Lao People's Democratic Republic	..	..	..	..	2 500
	Viet Nam	263 000	279 750	280 500	287 000	285 500
	TOTAL	263 000	279 750	280 500	287 000	288 100
Hong Kong	Viet Nam	55 705	11 896	55 724	52 041	45 300
India	Afghanistan	—	5 846	8 451	11 946	11 000
	Bangladesh	—	..	..	..	53 200
	Iran (Islamic Republic of)	—	1 215	982	605	..
	Sri Lanka	—	..	..	..	113 400
	Tibet	—	..	..	..	80 000
	Others	—	92	116	192	800
	TOTAL	—	7 153	9 549	12 743	258 400
Indonesia	Cambodia	..	..	..	4 314	..
	Indo-Chinese	32 224	9 453	4 428	—	—
	Viet Nam	..	..	..	16 258	15 000
	Others	..	..	..	..	600
	TOTAL	32 224	9 453	4 428	20 572	15 600
Iran (Islamic) Republic of)	Afghanistan	—	1 800 000	2 350 000	3 000 000	2 900 700
	Iraq	—	..	..	..	1 250 100
	Others[a]	—	100 000	500 000	1 000 000	..
	TOTAL	—	1 900 000	2 850 000	4 000 000	4 150 700
Iraq	Various	—	—	—	—	95 000
Japan	Indo-Chinese	1 255	1 290	..	..	8 200
	Others	..	..	8 383	8 405	..
	TOTAL	1 255	1 290	8 383	8 405	8 200
Jordan	Various	—	—	—	—	300
Kuwait	Stateless[b]	—	—	—	—	80 000
	Iraq	—	—	—	—	19 900
	Palestine	—	—	—	—	25 000
	TOTAL	—	—	—	—	124 900

TABLE 6 *(continued)*

Country of asylum	*Origin*	*Early 1980*	*Early 1985*	*Early 1990*	*Early 1991*	*Early 1993*
Lao People's Democratic Republic	Cambodia	10 400	1 200	..	..	—
Lebanon	Various	2 900	2 900	4 380	2 546	6 000
Macau	Indo-Chinese	3 487	727	401	205	—
Malaysia	Philippines	90 000	90 000	..	..	..
	Viet Nam	34 296	8 853	..	..	10 300
	Others	..	..	20 475	14 858	..
	TOTAL	124 296	98 853	20 475	14 858	10 300
Nepal	Bhutan	—	—	..	..	75 400
	Others	—	—	140	84	..
	TOTAL	—	—	140	84	75 400
Pakistan	Afghanistan	400 000	2 500 000	3 272 000	3 185 265	1 627 000
	Iran	..	..	..	..	300
	Others	..	..	..	..	1 900
	TOTAL	400 000	2 500 000	3 272 000	3 185 265	1 629 200
Papua New Guinea	Indonesia[c]	1 000	10 946	7 700	7 100	—
	Others	..	..	30	20	—
	TOTAL	1 000	10 946	7 730	7 120	—
Philippines Refugee Processing Centre	Indo–Chinese[d]	5 315	1 960	9 659	8 500	6 700
	Indo–Chinese	..	12 907	..	10 500	..
	Others	..	..	243	135	..
	TOTAL	5 315	14 867	9 659	19 000	6 700
Republic of Korea	Viet Nam	114	58	229	230	100
Saudi Arabia	Iraq	—	—	—	—	27 700
	Others	—	—	—	—	1 000
	TOTAL	—	—	—	—	28 700
Singapore	Viet Nam	901	249	324	..	..
	Others	..	..	..	146	100
	TOTAL	901	249	324	146	100
Syrian Arab Republic	Lebanon	—	33 600	—	—	..
	Others	—	..	—	—	5 700
	TOTAL	—	33 600	—	—	5 700
Tajikistan	Afghanistan	—	—	—	—	3 000
Thailand	Cambodia[e]	134 180	41 619	16 580	15 238	7 100
	Lao People's Democratic Republic	123 980	82 094	67 429	64 370	40 900
	Viet Nam[f]	8 393	4 726	14 963	15 659	12 600
	Others	..	..	742	1 526	3 000
	TOTAL	266 553	128 439	99 714	96 793	63 600
Turkey	Bosnia and Herzegovina	—	..	..	..	15 100
	Iran (Islamic Republic of)	—	..	..	..	1 800
	Iraq	—	..	..	..	11 400
	Others	—	2 600	3 067	28 000	200
	TOTAL	—	2 600	3 067	28 000	28 500
Viet Nam	Cambodia	..	21 000	15 000	21 100	16 300
Yemen	Ethiopia	—	—	—	—	3 400
	Somalia	—	—	—	—	56 200
	Others	—	—	—	—	100
	TOTAL	—	—	—	—	59 700
Other Asian countries	Somalia	—	—	—	—	15 100
	Others	—	—	—	—	100
	TOTAL	—	—	—	—	15 200
	GRAND TOTAL	1 167 150	5 024 981	6 642 069	7 756 243	7 240 100

Sources: Office of the High Commissioner for Refugees, "Report on UNHCR assistance activities in 1984-85 and proposed voluntary fund programmes and budget for 1985" (A/AC.96.657); "UNHCR activities financed by voluntary funds: report for 1989-90 and proposed programmes and budget for 1991" (A/AC.96/751), (parts II and V); ibid., "Report for 1990-91 and proposed programmes and budget for 1992" (A/AC.96/774), parts II and V); United Nations High Commissioner for Refugees, *The State of the World Refugees, 1993: the Challenge of Protection* (Middlesex, United Kingdom, Penguin Books, 1993).

NOTE: According to sources at the Office of the United Nations High Commissioner for Refugees, the figures presented here are provided mainly by Governments of asylum countries based on their own records and methods of estimation.

[a] In 1991, these refugees were mainly Iraqis.

[b] In 1991, these figures referred to stateless persons living in Kuwait. Such persons are called *bidoon* in Kuwait.

[c] Irian Jaya.

[d] In 1991, these figures referred to Vietnamese.

[e] Not including some 370,000 Cambodians displaced on the Thai-Cambodian border, of whom some 236,000 had been repatriated by 31 December 1992.

[f] Including all Vietnamese asylum-seekers regardless of their refugee status.

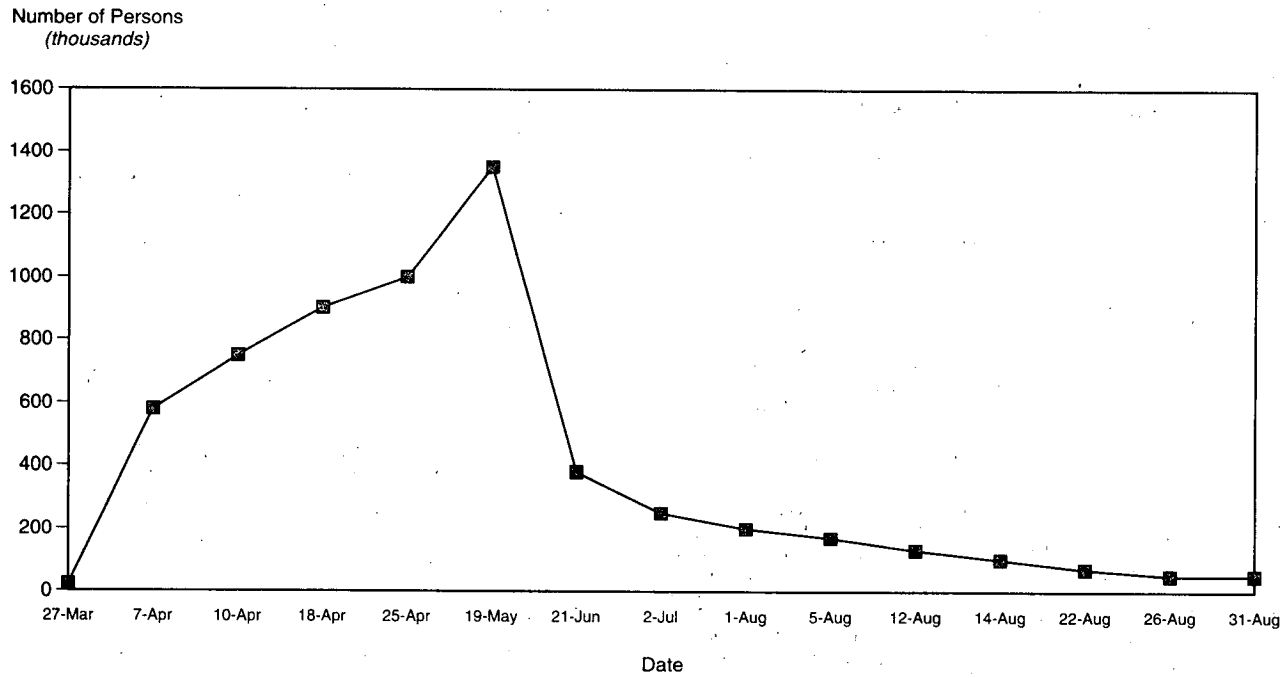
fled to the Islamic Republic of Iran and approximately 500,000 were in Turkey or at the Iraq-Turkey border (De Almeida e Silva, 1991). The need to protect the large civilian population affected by the conflict and to minimize refugee outflows led to an unprecedented operation in refugee history. On 3 April 1991, the United Nations Security Council adopted resolution 687 establishing a demilitarized zone along the Iraq-Kuwait border to be monitored by the United Nations Iraq-Kuwait Observations Mission. In its resolution 688 of 5 April 1991, the Security Council condemned the repression of the Iraqi civilian population in the Kurdish-populated areas of Iraq and requested the Secretary-General "to use all the resources at his disposal, including those of the relevant United Nations agencies, to address urgently the critical needs of the refugees and displaced Iraqi population" (United Nations, 1993b, p. 32).

33. Most of the affected Iraqi Kurds in the border region between Iraq and Turkey did not meet the definition of "refugee" according to United Nations instruments because they were effectively prevented from leaving their own country and had no access to asylum procedures in Turkey. However, the international community decided to treat the Kurdish situation as an issue more closely related to regional peace and security than to individual rights, thus justifying international intervention. On 18 April 1991, a Memorandum of Understanding was signed between the United Nations and the Government of Iraq concerning the establishment of United Nations Humanitarian Centres in Iraq staffed by United Nations civilian personnel. The agreement enabled the United Nations to promote the voluntary return, under safe conditions, of displaced Iraqis and to prevent further population outflows.

34. The actions taken by the international community led to the rapid repatriation of Iraqi refugees. Of the 1.4 million Iraqi refugees in the Islamic Republic of Iran as of mid-May 1991, only 252,000 remained by 3 July 1991 (see figure 1). Many of the 500,000 Iraqi refugees in Turkey also opted for voluntary repatriation. However, the lack of security within Iraq continued to be a concern. As of October 1991, Jordan and the Syrian Arab Republic were still hosting several thousand Iraqi refugees and there were 23,000 more in the Rafha Camp in Saudi Arabia (De Almeida e Silva, 1991). By early 1993, nearly 1.3 million Iraqi refugees were reported by the Islamic Republic of Iran, Saudi Arabia and Turkey. They were mostly Kurds and others who had sought refuge before 1991.

35. By early 1991, the countries of Eastern and South-eastern Asia were hosting approximately 527,000 refugees, mostly of Indo-Chinese origin (table 6). These refugees included 287,000 Vietnamese that had been permanently resettled in China but excluded the 370,000 displaced Cambodians living in camps on the border between Cambodia and Thailand under the mandate of the United Nations Border Relief Operation (UNBRO). As a result of political developments at both the regional and global levels, prospects for the eventual repatriation of the majority of the Indo-Chinese refugees in the region increased. The Agreement on a Comprehensive Political Settlement of the Cambodia Conflict, signed in Paris on 23 October 1991 by the four contending factions in the Cambodian civil war, raised hopes about the eventual repatriation of Cambodians (United Nations, 1991). UNHCR was charged with drawing plans to complete such repatriation before elections were held in April 1993. In a parallel development, new plans for the phased return of over 60,000 Lao from Thailand were considered at a tripartite meeting of UNHCR with the Governments of the Lao People's Democratic Republic and Thailand in June 1991 (UNCHR, 1991, part II). Between March 1992 and April 1993, more than 365,000 Cambodians returned to their war-torn country, most of them from Thailand (UNHCR, 1993).

Figure 1. Iraqi refugee population in camps in the Islamic Republic of Iran, 1991



Source: Manoel De Almeida e Silva, "Persian Gulf exodus stretched resources", *Refugees* (Geneva), No. 87 (October), p. 14.

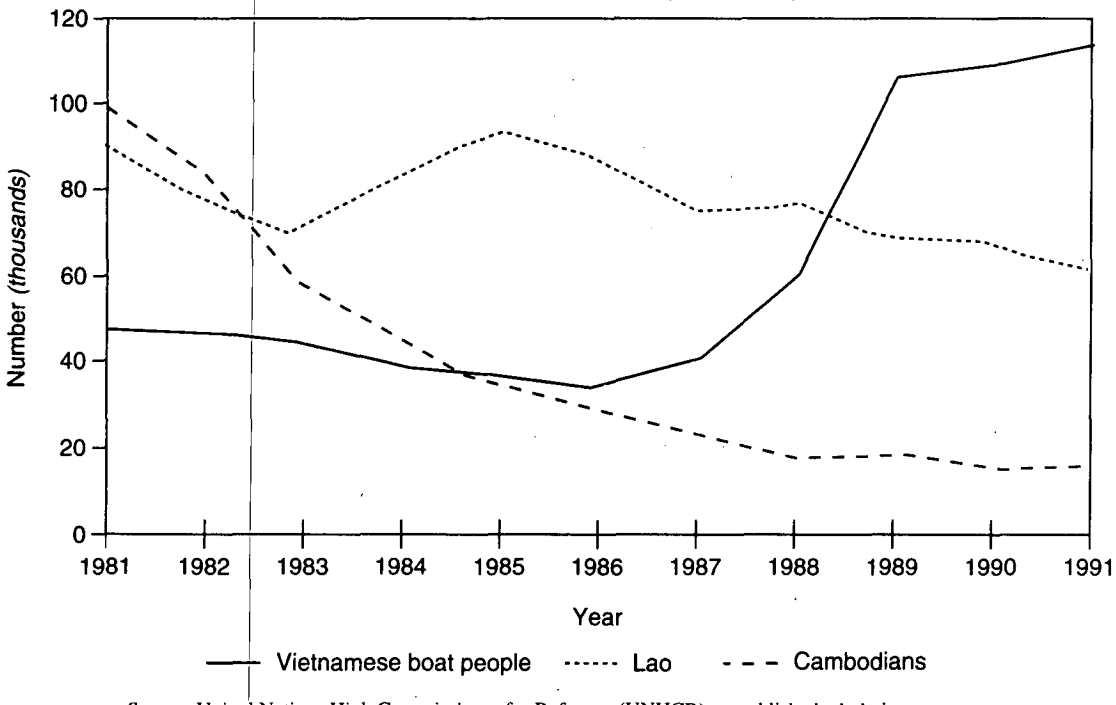
36. Only recently has repatriation become a more likely solution for the plight of refugees in the region than resettlement in third countries. Since 1975, when the outflow of Indo-Chinese refugees began, over 1.2 million of those that found temporary asylum in countries of the region were resettled overseas, including 700,000 Vietnamese, 295,000 Lao and 230,000 Cambodians. In addition, 290,000 Vietnamese that were resettled abroad left directly from Viet Nam under the Orderly Departure Programme (ODP) that had been in operation since 1979. In contrast, during the 1980s comparatively few Indo-Chinese refugees opted for repatriation. By early 1989, an estimated 17,000-18,000 Lao had returned independently to their country (United Nations, 1992), and by 1991, a further 7,000 had returned with UNHCR assistance under a repatriation programme that had been in place since 1980 (UNHCR, 1991, part II). In addition, a UNHCR repatriation programme that had begun in March 1989 resulted in the return of nearly 9,000 Vietnamese (UNHCR, 1991, part II).

37. Since 1975, Viet Nam has been the major source of refugees in South-eastern Asia, the vast majority of whom fled the country by boat. In 1978, when the number of "boat people" reached unprecedented proportions, the member States of the Association of South-East Asian Nations (ASEAN) requested that an International Conference on Indo-Chinese Refugees be convened. The Conference, held at Geneva in July 1979, resulted in a sharing of responsibilities: countries in the region agreed to provide first asylum to Indo-Chinese refugees, provided their speedy overseas resettlement could be assured by third (mostly developed) countries. In addition, the Government of Viet Nam agreed to discourage unlawful and hazardous departures by boat (Helton, 1989). In 1979, just before the Geneva Conference, the Government of Viet Nam and UNHCR signed a Memorandum of Understanding establishing the Orderly Departure Programme for persons wishing to leave Viet Nam for resettlement abroad.

38. Although the Geneva agreement did promote the resettlement of Indo-Chinese from refugee camps in the region, it did not reduce to zero the number of refugees remaining in UNHCR-supervised centres during the 1980s. Thus, the case-load of Vietnamese boat people declined slightly between 1981 and 1986 (from 45,000 to 32,000) and increased sharply thereafter (see figure 2). The number of Lao refugees in camps fluctuated around 80,000 during much of the 1980s. In contrast, the number of Cambodians in camps declined significantly, mainly because of the policies pursued by the Government of Thailand. Thus, after closing the "holding centres" for Cambodian refugees in early 1980, Thai authorities decided not to grant refugee status to newly arrived Cambodians and hence made them ineligible for resettlement. Although this policy substantially reduced the number of Cambodians under UNHCR mandate, it failed to halt their arrival as "displaced" persons, most of whom had been held in camps near the Thai-Cambodian border under the mandate of UNBRO since 1980. A UNHCR registration drive conducted in the border camps towards the end of 1991 in preparation for repatriation showed that some 370,000 Cambodians were living in them at the time (United States Committee for Refugees, 1992). As figure 3 shows, both the Thai policy towards Cambodians and the introduction of individual screening for Lao seeking asylum in Thailand as of July 1985 contributed to maintain the number of overland arrivals in the region at relatively low levels during most of the 1980s.

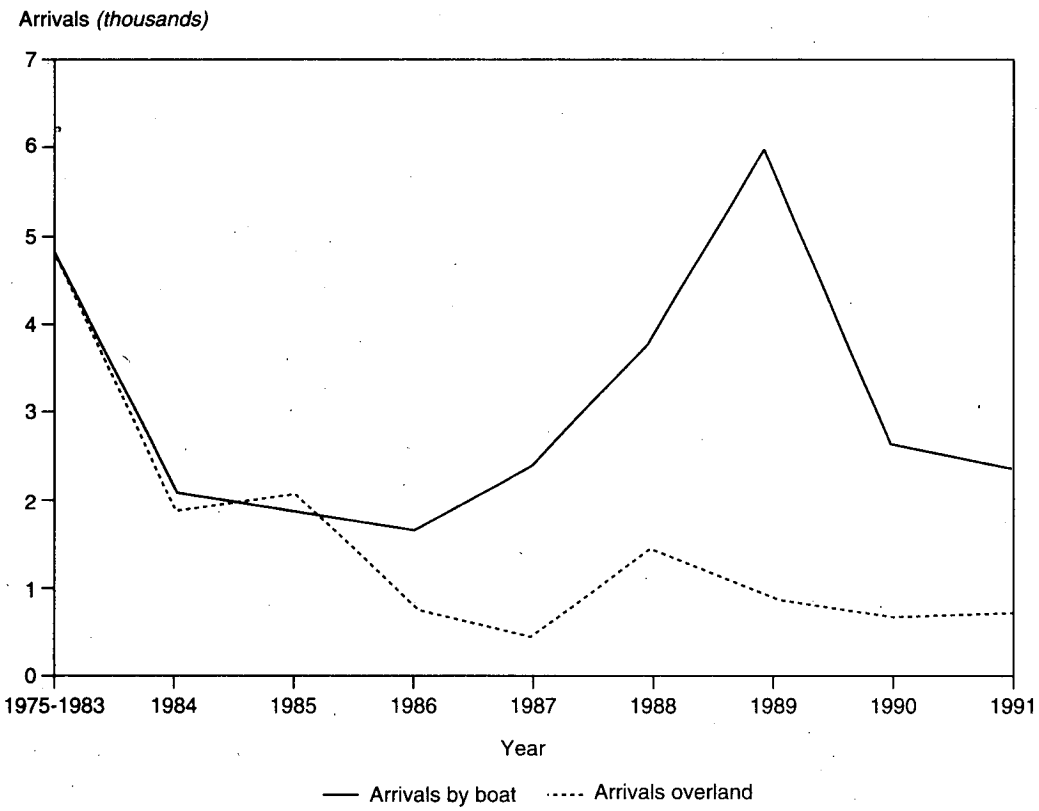
39. The late 1980s witnessed a sharp increase in the number of Vietnamese boat people in camps, associated with an equally significant increase in the annual number of arrivals: from fewer than 20,000 in 1986 to over 71,000 in 1989 (figure 3). Most arrivals were recorded by Hong Kong, Indonesia, Malaysia and Thailand. However, the distribution of arrivals by country or area of destination varied significantly during the decade (figure 4). During the late 1980s, Hong Kong became the main receiver of Vietnamese

Figure 2. Number of Indo-Chinese refugees and asylum-seekers registered in UNHCR centres in Eastern and South-eastern Asia, 1 January 1981–31 July 1991



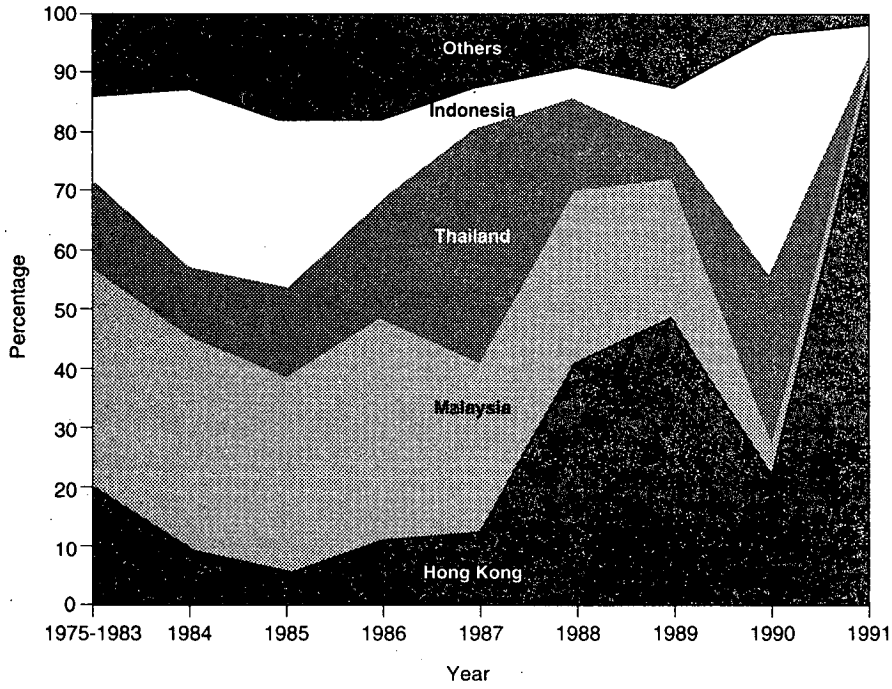
Source: United Nations High Commissioner for Refugees (UNHCR), unpublished tabulations.

Figure 3. Average number of Indo-Chinese refugees and asylum-seekers arriving monthly by boat and over land in Eastern and South-eastern Asia, 1 January 1975–31 July 1991



Source: United Nations High Commissioner for Refugees, unpublished tabulations.

Figure 4. Distribution of average monthly number of Indo-Chinese arriving by boat, by country or area of first asylum, 1 January 1975–31 July 1991



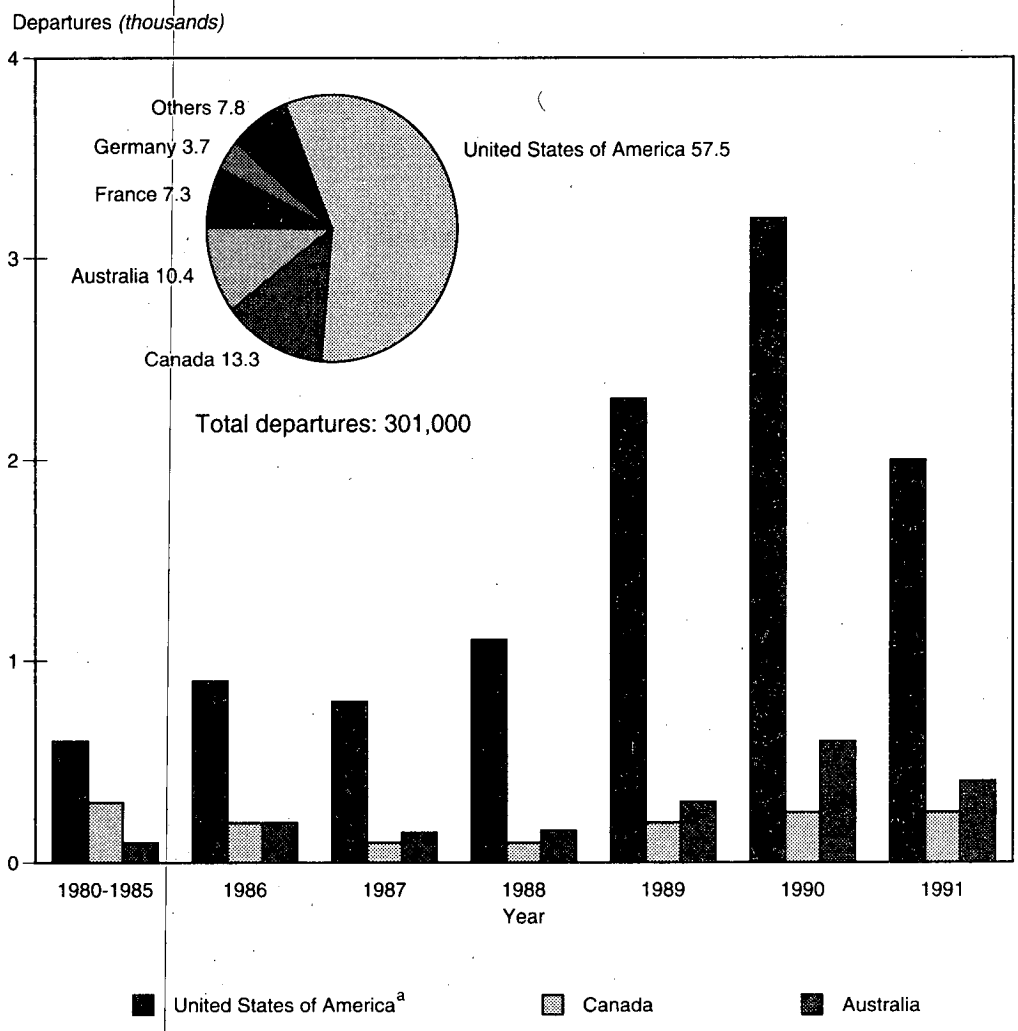
Source: United Nations High Commissioner for Refugees, unpublished tabulations.

boat people. Thus, 38 per cent of all boat arrivals recorded in the region between January 1986 and July 1991 were received by Hong Kong, and in 1991, the territory alone received 94 per cent of all Vietnamese boat people. The cumulative effect of such trend made Hong Kong the main area of asylum for Vietnamese boat people: in early 1991, it was hosting 53 per cent of all boat people in the region.

40. The continuing outflow of Vietnamese in the late 1980s prompted further policy responses from the main receiving countries or areas, including the detention of new arrivals in camps, the summary "push-back" of asylum-seekers arriving over land and the "push-off" of those arriving by boat. Concern about these developments led to the second International Conference on Indo-Chinese Refugees, held at Geneva in June 1989. At the Conference, representatives of 76 countries adopted unanimously a Comprehensive Plan of Action, which called for, *inter alia,* the expansion of ODP, the continued discouragement of clandestine departures by boat from Viet Nam and the respect of the principle of first asylum (see box 2).

41. As figure 5 indicates, the number of persons leaving Viet Nam under ODP increased sharply after the conference in 1989. Although spontaneous departures continued to occur, in 1990 the number of persons leaving Viet Nam through ODP surpassed the number arriving by boat in other countries of the region for the first time since 1986. Between 1980 and mid-1991, of the 288,000 Vietnamese and 13,000 Cambodians resettled abroad through ODP, 57 per cent (171,000 Vietnamese and 2,000 Cambodians) went to the United States of America. Vietnamese are admitted in the United States mainly under two immigration categories: refugees; and family reunion. Suhrke (1991) notes that whereas in 1987 three out of every four Vietnamese leaving for the United States under ODP were in the refugee category, by 1991 three out of every four were resettled under family reunion. Such a change was due in part to the Amer-

Figure 5. Total and average monthly departures from Viet Nam under the Orderly Departure Programme and percentage distribution by country of resettlement, 1 January 1980–31 July 1991



Source: United Nations High Commissioner for Refugees, unpublished tabulation.
[a]Excluding 25,000 persons resettled under a special bilateral programme in 1990 and 1991.

BOX 2. THE COMPREHENSIVE PLAN OF ACTION

The Comprehensive Plan of Action was adopted unanimously by the 76 countries attending the International Conference on Indo-Chinese Refugees held at Geneva in June 1989. The Plan of Action contains provisions on the following items:

Clandestine departures. Given the suffering and hardship involved in clandestine departures, the Plan of Action calls for humane measures to prevent them, particularly by combating the organizers of clandestine departures and by using the mass media to inform would-be asylum-seekers of the dangers and constraints involved;

Regular departure programmes. The Plan of Action calls for the promotion and expansion of regular departures from Viet Nam through the Orderly Departure Programme, with a view to making that the sole mode of departure;

Reception of new arrivals. The Plan of Action establishes the need to ensure that all those seeking asylum shall be given temporary refuge and access to UNHCR officials;

Refugee status. The Plan of Action calls for establishing a consistent region-wide refugee status-determination process in accordance with national legislation and internationally accepted practice;

Resettlement. The Plan of Action recognizes that continued resettlement of Vietnamese refugees benefiting from temporary refuge in South-eastern Asia is vital. Resettlement programmes are established for "long-stayers" (Vietnamese arriving before the cut-off dates for the establishment of refugee-determination procedures) and "newly determined refugees" (only those Vietnamese found to be refugees according to the new procedures);

Repatriation. The Plan of Action establishes that "persons determined not to be refugees should return to their country of origin in accordance with international practices reflecting the responsibilities of States towards their own citizens. In the first instance, every effort will be made to encourage the voluntary return of such persons". The Plan further states that if voluntary repatriation does not make sufficient progress, alternatives recognized as acceptable under international practices would be examined, including internment in UNHCR holding centres of persons who are denied refugee status.

Sources: United Nations General Assembly, "International Conference on Indo-Chinese Refugees: report of the Secretary-General" (A/44/523); see also JK, "From political commitment to practical action", *Refugees* (Geneva), No. 66 (July), pp. 7-9.

asian Homecoming Act adopted by the United States in 1987, which permitted children of American servicemen, their spouses, children, parents or guardians to be resettled under ODP. During the period 1991-1992, about 86,000 Vietnamese left their country under ODP annually (UNHCR, 1993).

42. One of the major changes introduced by the Comprehensive Plan of Action in 1989 was the adoption of individual screening procedures for Vietnamese asylum-seekers in all countries of the region. Prior to 15 March 1989, Vietnamese boat people arriving on the shores of South-eastern Asian countries had been granted refugee status on a group basis; as of that date proof of a well-founded fear of persecution on an individual basis became necessary to secure refugee status. However, the Comprehensive Plan of Action left unresolved the treatment that should be accorded to asylum-seekers that were not granted refugee status and did not wish to repatriate. Their growing numbers, plus the time involved in screening asylum-seekers individually, contributed to the increase of the population in UNHCR-supervised centres in the region. In Hong Kong, for instance, approximately 9 per cent of the 62,500 Vietnamese held in detention centres as of 31 August 1991 had been granted refugee status and awaited resettlement abroad. A further 38,000 were awaiting refugee determination and the remaining 19,000 had been screened and denied refugee status. Since June 1988, when Hong Kong instituted individual refugee determination procedures, the British authorities have resorted on a few occasions to the involuntary repatriation of Vietnamese not qualifying for refugee status. On 29 October 1991, the United Kingdom Government reached an agreement with the Government of Viet Nam with respect to the involuntary repatriation of Vietnamese whose asylum requests were denied in Hong Kong (United States Committee for Refugees, 1992). However, partially because of oppositon by the United States to this repatriation, fewer than 500 Vietnamese were involuntarily repatriated during 1991. Nevertheless, the threat of involuntary return resulted in a significant decline of new arrivals of Vietnamese asylum-seekers. Those that were screened and failed to gain refugee status were held in detention camps. As of early 1993, the number of Vietnamese in Hong Kong stood at some 45,000 (United States Committee for Refugees, 1993).

43. During the early 1990s, some countries in Southern Asia reported significant increases in their refugee populations. In 1992, Bangladesh experienced a major influx of nationals of Myanmar fleeing the military dictatorship in their country (United States Committee for Refugees, 1993). Most were Rohingyas, a Muslim minority in Myanmar that has ties with the population of Bangladesh. A previous inflow of Rohingyas had taken place in 1978. In addition, between 1991 and 1992, nearly 100,000 Bhutanese, who are Hindus and belong to the same ethnic group as the Nepalese, fled to Nepal (75,400) and India (20,000) (United States Committee for Refugees, 1993). India had also experienced an influx of Sri Lankan refugees, whose numbers peaked in 1991 as a result of conflict between the Sri Lankan army and the Liberation Tigers of Tamil Eelam (United States Committee for Refugees, 1993). Although their repatriation began in 1992, about 113,000 Sri Lankan Tamils still remained in the southern states of India in early 1993.

C. LATIN AMERICA

44. Although Latin America hosted 300,000 refugees in 1982, these data did not reflect the substantial numbers of "externally displaced persons" that were not formally recognized as refugees but were often in refugee-like situations. In August 1987, when the Governments of Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua agreed upon a "Procedure for the establishment of a firm and lasting peace in Central America" at Esquipulas II (UNHCR, 1989a), estimates were revised to take into account all persons that were in refugee-like situations. Consequently, the population of refugees and displaced persons in Latin America increased from 362,000 in 1985 to an estimated 1,200,000 in 1990 (see table 7), of which only about 132,000 were receiving UNHCR assistance. Because of the

TABLE 7. REFUGEES IN CENTRAL AMERICA, THE CARIBBEAN AND SOUTH AMERICA, BY COUNTRY OF ASYLUM, 1982-1993

Country or area of asylum	Early 1982	Early 1985	Early 1990		Early 1991		Early 1993
			Refugees and displaced persons	Refugees receiving UNHCR assistance	Refugees and displaced persons	Refugees receiving UNHCR assistance	
Central America and the Caribbean							
Bahamas	..	..	..	..	..	..	400
Belize	7 000	3 000	30 100	4 863	..	5 450	20 400
Costa Rica	15 000	16 800	278 600	32 000	278 000	42 334	114 400
Cuba	2 000	2 000	..	..	..	..	5 100
Dominican Republic	5 000	6 000	3 350	1 896	..	370	500
El Salvador	..	..	20 300	201	..	560	19 900
Guatemala	50 000	70 000	223 000	4 948	..	5 400	222 900
Honduras	29 000	47 800	237 000	34 666	..	2 069	100 100
Mexico	146 000	175 000	356 400	47 000	340 000	48 626	361 000
Nicaragua	22 500	18 500	16 230	1 000	16 000	7 392	14 500
Panama	1 500	1 100	1 400	1 138	..	342	1 000
SUBTOTAL	278 000	340 200	1 166 380	127 712	634 000	112 543	860 200
South America							
Argentina	11 500	13 600	12 600	1 462	11 375	1 300	11 500
Bolivia	..	..	..	..	..	..	500
Brazil	5 300	5 300	..	253	..	255	5 400
Chile	2 500	0	..	65	..	58	100
Colombia	0	700	693	292	498	200	500
Ecuador	900	700	757	699	709	699	200
French Guiana	..	..	..	..	..	..	1 700
Paraguay	..	..	..	..	..	..	—
Peru	600	650	691	459	724	720	600
Suriname	..	..	..	..	..	..	100
Uruguay	..	..	..	..	..	..	100
Venezuela	1 400	600	2 118	275	1 741	170	2 000
Other countries	..	600	..	403	..	385	2 600
SUBTOTAL	22 200	22 150	16 859	3 908	15 047	3 787	25 300
TOTAL	300 200	362 350	1 167 239	131 620	649 047	116 330	885 500

Sources: Office of the United Nations High Commissioner for Refugees, Refugee Map 30, June 1982; Office of the United Nations High Commissioner for Refugees, "Report on UNHCR activities in 1984-85 and proposed voluntary funds programmes and budgets for 1985" (A/AC.96/657); "UNHCR voluntary fund activities: Report for 1989-90 and proposed programmes and budget for 1991: (A/AC.96/751), part IV; ibid., "Report for 1990-91 and proposed programmes and budget for 1992" (A/AC.96/774), part IV; United Nations High Commissioner for Refugees, *The State of the World's Refugees 1993: the Challenge of Protection* (Middlesex, United Kingdom, Penguin Books, 1993).

NOTE: According to sources at the Office of the United Nations High Commissioner for Refugees, the figures presented here are provided mainly by Governments of asylum countries based on their own records and methods of estimation.

successful efforts to establish peace in Central America, the region most affected by refugee flows, the number of refugees and displaced persons in Latin America declined to an estimated total of 886,000 by early 1993.

45. Since 1980, most of the refugee population in Latin America have been concentrated in Central America and Mexico. Between 1981 and 1984, over 40,000 Guatemalan refugees sought asylum and protection in Mexico, settling spontaneously along the border with Guatemala (Lamb, 1987). Although until recently Mexico had not included the term "refugee" in its legal code, in 1984 the decision of the Mexican authorities to relocate about 18,000 Guatemalan refugees from the border region to camps in the states of Campeche and Quintana Roo implied a tacit recognition not only of the responsibility of Mexico to protect them but also of refugee determination on a group basis for persons fleeing general violence, as opposed to the standard determination based on individualized persecution as set forth by the 1951 Convention (Frelick, 1991).

46. In July 1990, the Government of Mexico amended the General Population Act to include the term "refugee" in its provisions. Such a change represented a significant development in refugee law, given that as of 1990, Mexico had not yet ratified either the 1951 Convention relating to the Status of Refugees or its 1967 Protocol. According to article 42(VI) of the new law, eligibility for refugee status is extended to persons that "have been threatened by general violence, foreign aggression, internal conflicts, massive human rights violations, or other circumstances that have greatly upset public order in their nation of origin" (Frelick, 1991, p. 216). This definition is an extension of that included in the 1984 Cartagena Declaration, which recognizes as refugees persons fleeing civil strife in their home country. It is expected to make eligible for refugee status a substantial number of the externally displaced Central Americans (mostly Salvadorians) in Mexico.

47. El Salvador, Guatemala and especially Nicaragua have been the three main countries of origin of refugees in Central America. Refugee outflows from these countries intensified during a period of political violence that peaked in the early 1980s. More recently, at least three developments have triggered new refugee movements in the region: the political conflict in Panama in 1989 and its associated economic difficulties, which contributed to an influx of Panamanian refugees into Guatemala; the upsurge of civil strife in El Salvador that began in November 1989 and made 2,000 Salvadorians flee to neighbouring Belize and Guatemala; and the overthrow of the elected Government of Haiti on 30 September 1991, which led to the outflow of about 9,000 boat people by the end of 1991 to seek asylum

in the United States (see paras. 73-84 on the countries of permanent resettlement).

48. The International Conference on Central American Refugees (CIREFCA) held in May 1989, the creation on 6 September 1989 of the International Support and Verification Commission (CIAV) and the negotiations to end civil conflicts in various countries of Central America have increased the prospects for repatriation of many refugees. The repatriation of Nicaraguan refugees accelerated after the elections held in February 1990, which resulted in a change of government. During 1990, UNHCR repatriated 35,500 Nicaraguans under the CIAV framework, including 27,400 from Honduras and 6,700 from Costa Rica. In addition, 18,900 members of the Nicaraguan resistance were repatriated from Honduras under CIAV auspices (UNHCR, 1991, part IV). According to the United States Committee for Refugees (1993), a total of 71,500 Nicaraguans were repatriated between 1987 and the end of 1992.

49. During 1990, UNHCR provided assistance to about 37,000 returnees in El Salvador (UNHCR, 1991, part IV). The repatriation of Salvadorians from Honduras, which began in 1987 with the return of 4,500 persons (Billard, 1987), proceeded until 1992. The camps of Colomoncagua and San Antonio in the western part of Honduras were closed in March 1990, when the 8,300 Salvadorians in them repatriated. Their departure, together with that of Nicaraguans, reduced the number of assisted refugees in Honduras to about 2,100 (see table 7). The last collective repatriation from Honduras took place in March and April 1992, when all refugee camps were closed (United States Committee for Refugees, 1993). Intensified efforts to end the civil conflict in El Salvador led to the establishment of the United Nations Observer Mission (Otsea, 1991) and may contribute to the eventual return of thousands of externally displaced Salvadorians that are not assisted by the international community. The success of repatriation drives during the late 1980s may be gauged by the fact that, as of early 1991, the number of returnees in Central America was estimated to outweigh the number of UNHCR-assisted refugees by a ratio of 3 to 2 (Otsea, 1991). However, the many Salvadorians that had fled to Mexico or the United States have been reluctant to return.

50. Compared with Central America, the number of refugees in South America has remained relatively stable since the early 1980s. Table 7 shows that there were about 25,000 refugees and externally displaced persons in South America by early 1993, about 45 per cent of whom had found asylum in Argentina. Most were of European, Chilean or Uruguayan origin. The change of Government in Chile in 1990 contributed to the return of nearly 2,500 Chilean refugees, mostly from Argentina. That same year, the Government of Chile, UNHCR and the International Organization for Migration concluded a Tripartite Agreement establishing a framework to provide assistance for the voluntary repatriation and reintegration of Chilean refugees.

D. EUROPE

51. During the past decade, the annual number of applications for asylum submitted in European countries, particularly in the market economies, has risen dramatically, passing from 67,000 in 1983 to 345,000 in 1989 and reaching 694,000 in 1992 (table 8). However, during most of the period, the number of refugees in Europe remained relatively low, in part because of low refugee recognition rates among asylum-seekers and in part because the number of refugees admitted for resettlement was limited. Thus, in the European market economies, the total number of refugees rose by only 279,000 between 1982 and 1991 (table 9). Since then, the conflicts resulting from the breakup of the Union of Soviet Socialist Republics and of Yugoslavia have led to the largest refugee crisis in Europe since the Second

TABLE 8. NUMBER OF ASYLUM APPLICATIONS SUBMITTED IN VARIOUS EUROPEAN COUNTRIES, 1983-1992
(Thousands)

Country of asylum	*1983*	*1984*	*1985*	*1986*	*1987*	*1988*	*1989*	*1990*	*1991*	*1992*	*Total*
Germany[a]	19.7	35.3	73.8	99.6	57.4	103.1	121.3	193.0	256.1	438.2	1 397.5
France	14.3	15.9	25.8	23.4	24.8	31.6	58.8	56.0	46.3	26.8	323.7
Sweden	3.0	12.0	14.5	14.6	18.1	19.6	30.4	29.0	26.5	83.2	250.9
Switzerland	7.9	7.4	9.7	8.5	10.9	16.7	24.4	36.0	41.6	18.2	181.3
United Kingdom	3.6	3.3	5.4	4.8	4.5	5.3	15.5	30.0	57.7	24.6	154.7
Austria	5.9	7.2	6.7	8.6	11.4	15.8	21.9	22.8	27.3	16.3	143.9
Netherlands	2.0	2.6	5.6	5.9	13.5	7.5	13.9	21.2	21.6	17.5	111.3
Belgium	2.9	3.6	5.3	7.6	6.0	5.1	8.1	13.0	15.2	17.7	84.5
Italy	3.0	4.6	5.4	6.5	11.0	1.3	2.2	4.7	27.0	2.5	68.2
Denmark	0.8	4.3	8.7	9.3	2.7	4.7	4.6	5.3	4.6	13.9	58.9
Hungary	0.0	0.0	0.0	0.0	0.0	0.0	27.0	18.3	..	6.0	51.3
Spain	1.4	1.2	2.4	2.3	2.5	3.3	2.8	8.6	8.0	12.7	45.2
Norway	0.2	0.3	0.8	2.7	8.6	6.6	4.4	4.0	3.0	5.3	35.9
Greece	0.4	0.8	1.4	4.2	6.9	8.4	3.0	6.2	..	2.0	33.3
Yugoslavia	1.8	2.8	2.0	2.9	3.1	4.3	7.1	2.5	..	0.3	26.8
Finland	0.0	0.0	0.0	0.0	0.1	0.1	0.2	2.5	2.1	3.7	8.7
Portugal	0.0	0.4	0.1	0.3	0.4	0.3	0.2	0.1	..	0.7	2.5
Luxembourg	..	..	..	..	..	..	..	..	..	2.0	2.0
Czechoslovakia	..	..	..	..	..	..	..	..	..	0.8	0.8
Romania	..	..	..	..	..	..	..	..	..	0.8	0.8
Poland	..	..	..	..	..	..	..	..	..	0.6	0.6
Bulgaria	..	..	..	..	..	..	..	..	..	0.2	0.2
TOTAL	66.9	101.7	167.6	201.2	181.9	233.7	345.8	453.2	537.0	694.0	2 983.0

Sources: United Nations High Commissioner for Refugees, unpublished tabulations; and *The State of the World's Refugees, 1993: The Challenge of Protection* (Middlesex, United Kingdom, Penguin Books, 1993).

[a]For periods prior to 3 October 1990, data are for the former Federal Republic of Germany.

TABLE 9. NUMBER OF REFUGEES IN EUROPEAN MARKET ECONOMIES, BY COUNTRY OF ASYLUM, 1982-1993

Country of asylum	*Early 1982*	*Early 1985*	*Early 1988*	*Early 1991*	*Early 1993*
Austria	30 000	20 500	17 500	16 400	60 900
Belgium	22 000	36 400	22 000	26 000	24 300
Denmark	1 800	8 500	30 000	34 300	58 300
Finland	—	500	800	2 400	12 000
France	150 000	167 300	179 300	200 000	182 600
Germany[a]	100 000	126 600	146 000	156 000	827 100
Greece	4 000	4 100	4 600	8 500	8 500
Hungary	—	—	—	30 000	32 400
Ireland	—	500	—	—	500
Italy	13 500	15 100	10 600	11 700	12 400
Luxembourg	—	—	—	700	2 200
Netherlands	13 000	15 000	24 000	28 500	26 900
Norway	6 000	10 000	15 000	19 600	35 700
Portugal	7 600	600	800	800	1 800
Romania	1 000	1 000	—	—	500
Spain	21 900	9 900	9 200	9 000	9 700
Sweden	20 000	90 600	130 000	183 400	324 500
Switzerland	40 000	31 200	30 200	28 600	26 700
United Kingdom	146 000	135 000	100 000	100 000	100 000
TOTAL	576 800	672 800	720 000	855 900	1 747 000

Sources: *World Population Monitoring, 1991: With Special Emphasis on Age Structure*, Population Studies, No. 126 (United Nations publication, Sales No. E.92.XIII.2), p. 196; Office of the United Nations High Commissioner for Refugees, "UNHCR voluntary fund activities: Report for 1990-91 and proposed programmes and budget for 1992" (A/AC.96/774), part III; United Nations High Commissioner for Refugees, *The State of the World's Refugees, 1993: The Challenge of Protection* (Middlesex, United Kingdom, Penguin Books, 1993).

NOTE: According to sources at the Office of the United Nations High Commissioner for Refugees, the figures presented here are provided mainly by Governments of asylum countries based on their own records and methods of estimation. In certain instances the data include persons that have not been formally recognized as refugees but are reported by Governments as being in a refugee-like situation. Countries with fewer than 500 refugees are not listed.

[a]Data for 1982, 1985 and 1988 are for the former Federal Republic of Germany.

TABLE 10. NUMBER OF REFUGEES IN EUROPEAN TRANSITION ECONOMIES, BY COUNTRY OF ASYLUM, EARLY 1993

Country of asylum	*Number of refugees*
Albania	3 000
Armenia	300 000
Azerbaijan	246 000
Bosnia and Herzegovina	810 000
Croatia	648 000
Czechoslovakia[a]	9 400
Poland	2 700
Russian Federation	17 100
Slovenia	47 000
The former Yugoslav Republic of Macedonia	32 000
Yugoslavia[b]	516 000

Source: United Nations High Commissioner for Refugees, *The State of the World's Refugees, 1993: The Challenge of Protection* (Middlesex, England, Penguin Books, 1993).

NOTE: According to sources at the Office of the United Nations High Commissioner for Refugees, the figures presented here are provided mainly by Governments of asylum countries based on their own records and methods of estimation. In certain instances, the data include persons that have not been formally recognized as refugees but are reported by Governments as being in a refugee-like situation. Countries with fewer than 500 refugees are not listed.

[a]The former State of Czechoslovakia was dissolved on 31 December 1992 and became the independent States of the Czech Republic and Slovakia on 1 January 1993.

[b]Data for the period beginning 27 April 1992 refer to the Federal Republic of Yugoslavia in terms of its boundaries as they exist from that date.

World War. In early 1993, market economies in Europe reported that their refugee population had risen to 1,747,00 (table 9) and the transition economies of Eastern Europe reported an even larger number of refugees, over 2,631,000 (table 10). Thus, as of early 1993, these countries were hosting over 4,378,000 recognized refugees.

52. The continued increase of asylum requests filed in European countries prompted a series of responses directed to controlling further increases. At the international level, the member States of the European Union agreed to discourage asylum-seekers from submitting applications in more than one country. The Dublin Convention of June 1990 established criteria to determine the State responsible for examining an asylum application lodged in one of the countries of the Union. For instance, if an asylum-seeker possesses more than one valid residence permit, the member State responsible for the examination of his or her asylum request is the one that has granted the permit for the longest period. As of November 1993, the Dublin Convention had been ratified by six of the 12 member States of the European Union: Denmark; Greece; Italy; Luxembourg; Poland; and the United Kingdom. At the time of writing, all remaining countries, except the Netherlands, were expected to ratify the Convention by early 1994.

53. In a further effort to reduce the case-load of asylum applications, Governments have adopted various procedures to dismiss asylum claims that are clearly unfounded. Thus, the Governments of all European countries receiving large numbers of asylum requests have decided to return asylum-seekers to any country that might have granted them first asylum, such as any "safe" country through which they transit (Widgren, 1990). Some Governments, including those of Belgium and Switzerland, have begun to return asylum-seekers to their countries of nationality if the latter are considered "safe", that is, if they are deemed to respect basic human rights in a general way. That procedure, how-

ever, fails to take account of the specific circumstances that may have led a particular person to seek asylum and may, strictly speaking, infringe his or her rights according to international instruments (Goodwin-Gill, 1992).

54. Governments have also sought to deny entry to asylum-seekers or to control it more strictly. In July 1991, as a first step to harmonize national visa policies, the member States of the European Union agreed on a list of countries whose citizens need a visa to enter Union territory (OECD, 1992). Governments have also denied entry to persons lacking proper travel documents, many of whom intended to file for asylum. The United Kingdom was among the first countries in Europe to impose heavy fines on airlines transporting undocumented aliens. Although the Carriers' Liability Act of 1987 (United Kingdom) did contribute to a reduction of the arrivals of undocumented aliens, it is also likely to have inhibited the arrival of "genuine" refugees that may have been unable to secure proper documentation because of persecution (Ruff, 1989; Kessler, 1992). Belgium, Denmark, France and Germany have also introduced carrier sanctions, and the Netherlands, Norway and Switzerland plan to do so (Feller, 1989; OECD, 1992). To halt the illegal entry of aliens within Union territory, the member States of the European Union have drafted a Convention on the crossing of the external borders, but its signing has been delayed because of bilateral problems. Protection of the external borders of the Union has received growing attention in view of the anticipated removal of internal border controls by 1993.

55. Before discussing the main patterns of asylum migration in Europe, a word of caution must be said on the interpretation of the available statistics. Applying for asylum is an administrative procedure, not necessarily related to the crossing of international borders. Thus, many foreigners that apply for asylum do so only after having established legal residence for other purposes. Furthermore, asylum-seekers whose claims are rejected do not always leave the country in which they applied for asylum.

56. During the period 1983-1991, Germany received nearly 1 million applications for asylum, representing more than 40 per cent of all applications lodged in Europe (table 8). In 1992, the decision by the Government of Germany to provide temporary safe haven for refugees from the former Yugoslavia prompted the submission of 438,200 applications for asylum, which accounted for 63 per cent of the total applications filed in European countries that year. The attractiveness of Germany to asylum-seekers derived, at least in part, from the fact that the right to asylum was enshrined in its constitution (article 16 of the German Basic Law). The feeling that the asylum system was being abused because of that provision prompted German authorities to modify the asylum laws. Thus, on 1 January 1991, a new Alien Law came into effect, transferring many responsibilities from the state or local government to the federal Government. In particular, asylum adjudication and removal of those denied asylum became the responsibility of the federal Government. Until mid-1992, the Government of Germany focused mainly on reducing the processing time of asylum claims, increasing the deportation of persons whose asylum claims were found to be invalid and advancing the cause for a common European asylum policy. As part of that process, German authorities were successful in modifying article 16 of the Basic Law and amending the laws on asylum. The amended legislation, which went into effect on 1 July 1993, allows the rejection of asylum claims from persons entering Germany through neighbouring countries that have been declared secure under German asylum provisions. Such persons are to be returned to the neighbouring countries through which they transited.

57. As indicated in table 11, even before the asylum legislation was amended, only a limited proportion of the asylum applications processed by German authorities were approved (11 per cent in 1988, 6 per cent in 1989). As in most countries for which data are available, the proportion of processed asylum requests receiving favourable decisions in Germany fell during the late 1980s. According to table 9, the number of refugees in Germany increased by only 56,000 during the period 1982-1991, reaching 156,000 by early 1991. Thereafter, the refugee population in the country grew rapidly, to reach 827,000 by early 1993. However, this figure includes an estimated 640,000 *de facto* refugees—persons that either did not apply for asylum or whose application was rejected but that nevertheless were not deported for political or humanitarian reasons (UNHCR, 1993).

58. In terms of the total number of asylum applications received during 1983-1992, France ranked second, accounting for 11 per cent of the applications filed in Europe. Since 1989, however, the number of asylum applications filed in France has been declining (see table 8). As table 11 indicates, the proportion of asylum applications approved has been considerably higher in France than in Germany. However, the French data on processed asylum applications include those of Indo-Chinese refugees that arrive in France under the French resettlement quota and are therefore assured of asylum.

59. The decline in the number of asylum claims lodged in France since 1989 can be attributed to a number of government measures. In July 1991, a transit visa was introduced for nationals of 10 countries: Albania; Angola; Bangladesh; Ethiopia; Ghana; Nigeria; Pakistan; Somalia; Sri Lanka; and Zaire. Several of these countries had been the sources of asylum-seekers lodging a claim while on transit in France (OECD, 1992). In 1990, the Government trebled the budget of the French Office for the Protection of Refugees and Stateless Persons (OFPRA) to reduce the processing time of asylum applications to six months. In addition, as of October 1991 asylum-seekers in France were no longer granted the right to work. In July 1991, the Government of France launched an exceptional programme to allow asylum-seekers that had waited at least two years for a decision on their asylum application to regularize their status. To qualify for the programme, an asylum-seeker had to have entered France before 1 January 1989 and had to show proof of gainful employment. By the end of 1991, about 50,000 persons had applied for regularization (OECD, 1992).

60. During the period 1983-1992, Sweden ranked third in terms of the number of asylum applications received (table 8). In December 1989, the Government of Sweden decided to tighten the asylum adjudication procedure by granting asylum only to persons fitting the Convention definition (Nobel, 1990). Although the proportion of asylum claims approved did drop after that decision, significant percentages of persons granted asylum continued to fall outside the strict Convention standard. Thus, whereas in 1988-1989 an annual average of 15,000 persons were allowed to stay on humanitarian grounds (table 11), of the 12,800 cases granted permanent residence permits in 1990, only 15 per cent qualified as Convention refugees (United States Committee for Refugees, 1992). As the data given in table 11 indicate, during 1988-1989 Sweden allowed some 38,000 persons to stay, by far the largest number of persons

granted asylum by a European country during that period. The Government that came into office in October 1991 repealed the restrictions adopted in 1989 and Sweden has thus maintained its generous humanitarian policy. By early 1993, it was the European market economy hosting the second largest refugee population: 324,500 persons (table 9).

61. Although Switzerland ranked fourth in terms of the asylum claims it received during 1983-1993, it hosted a declining stock of refugees (table 9). Since 1984, Switzerland has been tightening its asylum law and adjudication procedures. The revision of the asylum law in June 1990 gave the federal Government the authority not to recognize as asylum-seekers nationals of countries designated as "safe", that is, countries where violations against human rights are handled by legal means. By the beginning of 1993, the list of safe countries included Bulgaria, the Czech Republic, Hungary, India, Poland, Romania and Slovakia. As a result, persons from those countries were excluded from the asylum procedure altogether, except in those cases where convincing evidence of a reasonable fear of persecution could be established. The proportion of asylum cases approved by Swiss authorities has generally been low and declined between 1989 and 1991 (table 11). The restrictive measures adopted led to a noticeable drop in the number of asylum applications filed between 1991 and 1992 (table 8).

62. The United Kingdom, ranking fifth in terms of asylum requests received during 1983-1992, had been receiving relatively small numbers of asylum claims until 1988 (see table 8). Thereafter, claims increased sharply. By 1991, only Germany surpassed the United Kingdom in terms of asylum requests received. However, the number of asylum requests that were either granted or rejected remained relatively low: 1,600 in 1988; and 4,000 in 1989 (table 11). By October 1989, 27,200 cases were pending and the asylum adjudication process was taking an average of 13.5 months to be completed (United States Committee for Refugees, 1992). Among the limited number of cases decided, the proportion granted refugee status was very high: 63 per cent in 1988 and 75 in 1989. Concern about the rapidly increasing number of asylum requests prompted the British Government to take several restrictive measures (Salt, 1992). In July 1991, the Government doubled to 2,000 pounds sterling (£) the fine per undocumented alien transported by airlines; and in November 1991, the British Government presented a new asylum bill to Parliament that would reduce the processing time of asylum applications, reform the appeal procedure for applicants denied asylum and limit the possibility of

TABLE 11. DISTRIBUTION OF ASYLUM APPLICATIONS PROCESSED IN SELECTED COUNTRIES OF ASYLUM IN EUROPE ACCORDING TO DECISION TAKEN, 1988-1990

Country of asylum	*Period*	*Accepted as Convention refugees*	*Rejected*	*Percentage approved to stay*	*Additional persons allowed*	*Ratio*[a]
Austria	1988	1 800	4 900	27	—	—
	1989	2 900	12 100	19	—	—
	Jan.-Sept. 1990[b]	700	8 600	8	—	—
Belgium	1988	900	1 500	38	—	—
	1989	800	800	50	—	—
	Jan.-Sept. 1990	500	800	38	—	—
Denmark	1988	1 700	..	..	2 200	1.29
	1989[b]	1 200	..	..	1 400	1.17
	1990	..	..	..	..	..
France[b]	1988	8 700	16 600	34	—	—
	1989	8 800	22 400	28	—	—
	Jan.-Aug. 1990	8 600	52 100	14	—	—
Germany	1988	7 600	63 000	11	—	—
Federal	1989	6 000	89 900	6	—	—
Republic of[c]	Jan.-Oct. 1990	4 400	95 700	4	—	—
Netherlands	1988	1 400	7 400	16	900	0.64
	1989	1 600	9 700	14	1 100	0.69
	Jan.-June 1990[b]	200	2 400	8	300	1.50
Norway	1988	700	2 000	26	4 100	5.86
	1989	400	4 700	8	5 200	13.00
	1990	..	..	..	..	..
Sweden	1988	4 800	..	..	10 200	2.13
	1989	3 100	..	..	20 200	6.52
	1990	..	..	..	..	..
Switzerland	1988	700	8 800	7	2 300	3.29
	1989	700	12 700	5	2 200	3.14
	Jan.-Oct. 1990	500	9 000	5	..	..
United Kingdom	1988	1 000	600	63	2 300	2.30
	1989[b]	3 000	1 000	75	5 700	1.90
	Jan.-June 1990	800	200	80	1 900	2.38
TOTAL[d]	1988	22 800	104 800	18	22 000	0.96
	1989	24 200	153 300	14	35 800	1.48

Source: United Nations High Commissioner for Refugees, unpublished tabulations.

[a]Ratio of persons allowed to stay to persons recognized as Convention refugees.

[b]Convention recognitions including "quota" refugees.

[c]Data for period prior to 3 October 1990.

[d]Excluding Denmark and Sweden, except with respect to persons allowed to stay and the ratio of those persons to Convention refugees.

staying in the country for those whose asylum request is rejected (Salt, 1992). Because of the tightening of asylum procedures, the number of asylum applications in 1992 dropped to fewer than half the number filed during the previous year.

63. Austria, a country that received nearly 143,900 asylum requests during 1983-1992 and ranked sixth among all European countries in terms of requests lodged, ceased in 1990 to act as a country of transit for the resettlement of Soviet and Eastern European refugees. That year, Austria imposed visa requirements on Bulgarians, Poles, Romanians and Turks. In April 1990, a new asylum law was passed, precluding aliens from applying for asylum at the border, allowing officials to prevent airline passengers from disembarking during stopovers in Austria, boosting the authority of border guards to make refugee determinations and facilitating the deportation of aliens that had entered Austria illegally. A series of other restrictive measures came into effect in June 1992. Although those measures helped reduce the overall number of applications for asylum, Austria was faced with a growing number of asylum-seekers from the former Yugoslavia. In early 1993, the number of refugees in Austria stood at 60,900, including 42,100 from the former Yugoslavia (table 9). As table 11 shows, the proportion of asylum applications approved dropped from 27 to 8 per cent between 1988 and the first nine months of 1990.

64. Between 1983 and 1992, nearly 111,300 asylum claims were filed in the Netherlands, making it the seventh country in terms of asylum requests received. According to Netherlands asylum laws and regulations, every request for asylum must be examined by the Netherlands authorities. The Supreme Court upheld that obligation even when the asylum-seeker's case had already been determined by another State. That ruling runs against the main thrust of the Dublin Convention, which establishes that asylum applications within the European Union should be examined only by one member State. Consequently, the Netherlands had not been able to ratify either the Dublin Convention or the Schengen Agreement by 1992. To prevent the abuse of asylum, the Government of the Netherlands established a new admission procedure on 1 January 1992. Henceforth, new asylum-seekers would be placed in special reception centres and their application would be reviewed within a month. Those presenting manifestly unfounded claims would remain in those centres until their departure, whether voluntary or not, whereas those admitted to the asylum procedure proper would be moved to regular reception centres from which a transition to conventional housing could later be made.

65. Belgium and Italy, ranking eighth and ninth in terms of asylum requests received, have adopted fairly stringent measures to maintain the number of asylum-seekers within manageable ranges. On 1 October 1991, a new asylum law went into effect in Belgium. The law, dubbed the "2 x 5% rule", establishes that an asylum-seeker from a country that in the previous year accounted for at least 5 per cent of all asylum applicants, of whom fewer than 5 per cent were granted refugee status, would be denied entry to Belgium or an extension of stay in Belgium unless the applicant could prove that a serious risk to his or her life or liberty existed if returned. Under this controversial law, 17,700 persons applied for asylum in 1992, and the number of refugees in Belgium declined to 24,300 by early 1993 (tables 8 and 9). Interestingly, among the 5,400 asylum applications decided during 1989-1991 in Belgium, 41 per cent — a relatively high proportion — were approved (table 11). Because of the events in the former Yugoslavia, in February 1992, the Government of Belgium decided to remove that country from the list of those to which the "2 x 5% rule" would apply (United States Committee for Refugees, 1993).

66. In 1991, the Government of Italy took steps to harmonize its refugee and asylum law with that of the European Union and to respond to pressure created by the spontaneous arrival of large contingents of Albanian asylum-seekers. In accordance with the first goal, the Matelli Law was adopted, allowing the rejection of asylum-seekers arriving through third countries that are party to the 1951 Convention. During the first four months of 1991, about 30,000 foreigners were turned away at the border under the provisions of the new law. Asylum-seekers with valid visas for third countries (mainly Eastern European countries) were also refused entry at airports. Those measures, however, could not be used to return the more than 20,000 Albanians that arrived by boat at Brindisi during the first week of March 1991. Although most were eventually allowed to apply for asylum, the Government of Italy took immediate measures to prevent the further inflow of Albanians, mainly by interdicting potential asylum-seekers at sea and returning them to Albania and by cooperating with the Government of Albania to keep its citizens at home. A generous aid package was also part of the negotiation. Despite those measures, on 8 August 1991 a second contingent of almost 14,000 Albanians landed at Bari: most were deported and prevented from filing asylum claims. According to Italian authorities, the new Government in Albania provided adequate guarantees with regard to the respect of human rights so that the admission of Albanians as asylum-seekers was unwarranted.

67. The rest of the countries listed in table 8 received relatively few asylum requests during the period considered. In some, such as Denmark and Norway, the number of persons allowed to stay on humanitarian grounds surpassed, often by very wide margins, the number of those granted asylum under the 1951 Convention. Hungary, which only acceded to the 1951 Convention in 1989, had received over 45,000 asylum-seekers since then, most of them from neighbouring Romania. More recently, persons fleeing conflict in the former Yugoslavia have been arriving in large numbers (see box 3).

68. Data for other transition economies are only available for early 1993 (table 10). According to UNHCR sources, those countries, many of which have only recently gained independence, were hosting a total of about 2,631,000 refugees or persons in refugee-like situations. About 78 per cent of those persons are in the successor States of the former Yugoslavia.[1] They have been forced to flee the conflict that began in June 1991, when Croatia and Slovenia declared themselves independent from Yugoslavia. Shortly thereafter, in April 1992, ethnic conflict erupted in neighbouring Bosnia and Herzegovina. According to UNHCR reports, within three months, the number of refugees, internally displaced persons and other persons in need of assistance within the former Yugoslavia soared to 2.6 million (UNHCR, 1993).

69. The other focuses of conflict are located in some of the successor States of the former USSR.[2] The dispute between Armenia and Azerbaijan, for instance, has led to the outflow of some 300,000 ethnic Armenians from Azerbaijan. By early 1993, Azerbaijan itself was hosting some 246,000 refugees, originating mostly in Armenia and including some Meskhetian Turks.

BOX 3. YUGOSLAVIA

The breakup of the former State of Yugoslavia has produced the greatest humanitarian crisis in Europe since the end of the Second World War. In November 1991, at the request of the Secretary-General, the Office of the United Nations High Commissioner for Refugees (UNHCR) assumed the role of "lead agency" responsible for coordinating United Nations assistance in the former Yugoslavia. At the time, about half a million persons had been displaced by war in Croatia. Yet, an even larger population would be affected a few months later when war broke out in Bosnia and Herzegovina in April 1992. Within three months, about 2.6 million persons were in need of assistance in the former Yugoslavia. By July 1993, that number had grown to 3.6 million persons, including 2.3 million in Bosnia and Herzegovina alone. Despite the efforts made by the international community to secure a settlement of the Yugoslav crisis and to ensure the protection of the population in affected areas, considerable numbers of persons have fled in search of asylum elsewhere.

On 29 July 1992, a conference convened by UNHCR was held at Geneva to address the situation of refugees and displaced persons from the former Yugoslavia. Although the importance of humanitarian assistance in war zones was acknowledged, many Governments appeared to be reluctant to offer asylum in their national territory. Thus, although the Conference was successful in eliciting needed financial contributions, the proposal made by Austria and Germany to set quotas for the admission of refugees from the former Yugoslavia was not accepted. Instead, the general view was that efforts should be made to keep those affected by the war in the territory of the former Yugoslavia; and, in order to assure their safety, to establish neutral zones under the protection of the international community. Thus, in June 1993, the Security Council, acting under Chapter VII of the United Nations Charter, extended the mandate of the United Nations Protection Force (UNPROFOR) to cover the protection of all towns and besieged enclaves that had earlier been designated as "safe areas".

European countries have adopted a variety of policies with regard to the treatment of asylum-seekers and other migrants from the former Yugoslavia. Germany has generously granted temporary asylum to them. Hungary has allowed them to cross its territory without visa requirements and has allowed them to stay temporarily without granting them refugee status. In Austria and the Netherlands, attempts to establish strict visa requirements for Yugoslav citizens generated so much public controversy that those requirements had to be abandoned. Switzerland did adopt visa requirements but also granted temporary protection to citizens of the former Yugoslavia that did not have residence permits. As of 1992, Germany hosted 220,000 persons from the former Yugoslavia, Sweden another 74,000, Austria 73,000, Switzerland 70,000 and Hungary over 40,000.

70. With regard to the countries of origin of persons seeking asylum in the Eastern market economies, figure 6 shows that, during 1983-1990, most were citizens of Asian (51 per cent) or European (29 per cent) countries. Note that Turkey, one of the major sources of asylum-seekers in Europe, has been classified as part of Asia. According to figure 6, the distribution of asylum-seekers by citizenship varies considerably between the different countries of asylum. Thus, Austria and Germany, countries with strong historical ties to the transition economies, have received comparatively high proportions of asylum-seekers from European countries. In contrast, countries having had long-standing colonial ties with Africa, such as Belgium, France and the United Kingdom, have received a substantial proportion of asylum claims from Africans. Perhaps the most striking feature of figure 6 is the strong dominance of Asian asylum-seekers: they constituted a majority in all asylum countries except Austria. During 1983-1987, the Islamic Republic of Iran and Turkey ranked consistently among the main four countries of origin of asylum-seekers in Europe (table 12). Indeed, during 1983-1990, Turkish asylum-seekers accounted for 12.9 per cent of all the asylum claims made in Europe, and Iranians constituted 8.6 per cent. Asylum-seekers from Sri Lanka constituted the third largest Asian contingent, accounting for 6.6 per cent of the applications filed during the period. Among the European countries, Poland and Romania had the lead, accounting for 9.7 and 9.4 per cent, respectively, of all asylum claims filed in Europe. That is, during 1983-1990, one out of every two asylum-seekers in Europe was a citizen of those five countries.

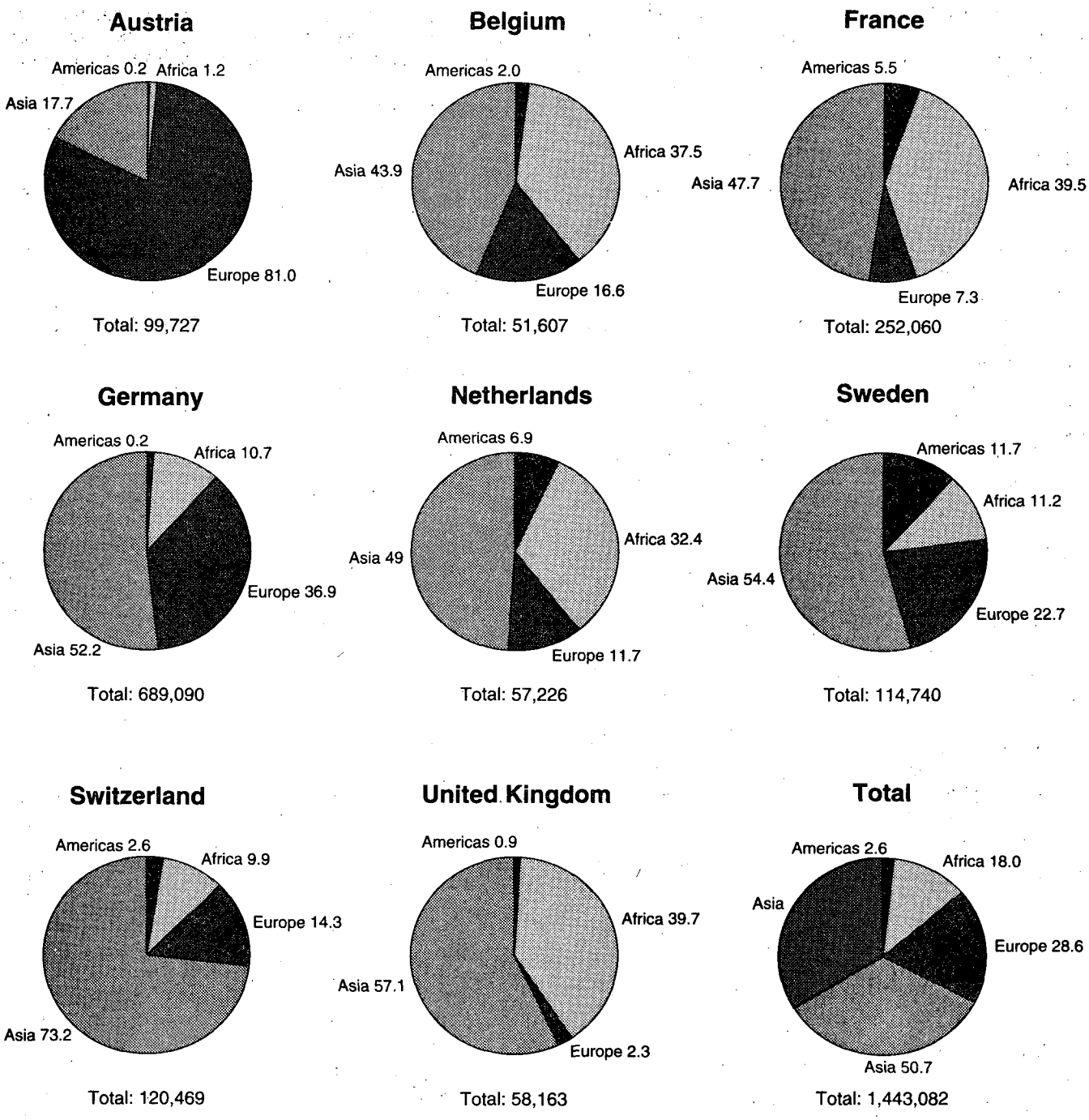
71. Although the distribution of asylum-seekers by country of citizenship has varied over the 1980s, a relatively small number of countries (22 in all) have accounted for at least three fourths of the applications filed each year (table 12). In addition, there has been a marked change in the distribution of asylum-seekers by region of origin. Thus, whereas during 1983-1986, 56.1 per cent were Asian citizens and only 20.6 were citizens of the transition economies, during 1987-1990 the proportion of Asians dropped to 42.6 per cent and that of Eastern Europeans rose to 36.5 per cent. That is, as the process leading to the eventual collapse of the former administrations in the transition economies accelerated, the relaxation of exit regulations led an increasing number of people to seek asylum in other European countries. However, the changes of government that ultimately took place removed the major acceptable cause for seeking asylum, and nationals of the transition economies are increasingly being denied refugee status. Indeed, a few of those countries have themselves become countries of asylum. Such developments led Czechoslovakia and Poland to ratify the 1951 Convention and its 1967 Protocol in 1991 (United States Committee for Refugees, 1992).

72. More recently, the breakup of the former Yugoslavia has contributed to change further the distribution of asylum-seekers by country of origin (see box 3). Indeed, in 1991 and 1992, the largest number of asylum applications lodged in European countries were from former Yugoslav citizens —115,500 and 229,600, respectively (UNHCR, 1993). During those years, Romania appears to have ranked second as a source of asylum-seekers, particularly after exit restrictions were relaxed.

E. COUNTRIES OF PERMANENT RESETTLEMENT

73. In accordance with their character as countries allowing immigration for permanent resettlement, Australia, Canada and the United States of America have also granted resettlement opportunities to very substantial numbers of refugees. The United States alone admitted nearly 2.5 million refugees during the period 1946-1990, over 1 million of whom entered the country during the 1980s (United States of America, 1991). Since 1945, Australia and Canada have each resettled half a million refugees and persons in refugee-like situations (Hawkins, 1989). Canada admitted

Figure 6. Distribution of asylum-seekers in selected European countries, by region of citizenship, 1983-1990[a]
(Percentage)



Source: United Nations High Commissioner for Refugees, unpublished tabulations.
[a]Excluding the stateless and those not stating nationality.

223,000 such persons during 1980-1989 and over 124,000 entered Australia between mid-1980 and mid-1988. Thus, in all three countries the 1980s were characterized by very substantial admissions of persons in need of protection.

74. The three countries are parties to United Nations instruments on refugees. However, whereas Australia signed the 1951 Convention in 1954 and the 1967 Protocol in 1973, Canada acceded to both the Convention and the Protocol only in 1969 (Hawkins, 1989) and the United States ratified the Protocol in 1968. Prior to and even after accession, both Canada and the United States admitted refugees under a series of programmes. The United States, for example, admitted as refugees only persons coming from "communist countries or from countries in the Middle East" (Loescher, 1991, p. 30). No significant change in the distribution of refugee admissions by type of State of origin occurred after adoption of the 1980 Refugee Act, which instituted a defini-

TABLE 12. COUNTRIES OF CITIZENSHIP OF ASYLUM-SEEKERS IN EUROPE ACCOUNTING FOR AT LEAST 75 PER CENT OF ALL ASYLUM APPLICATIONS SUBMITTED ANNUALLY, 1983-1990

Rank	*Country of citizenship of asylum-seekers*	*Percentage of all asylum claims filed in Europe*
	1983	
1.	Sri Lanka	8.8
2.	Iran (Islamic Republic of)	8.0
3.	Turkey	8.0
4.	Poland	7.8
5.	Czechoslovakia	6.6
6.	Viet Nam	5.9
7.	Cambodia	5.0
8.	Ghana	4.8
9.	Zaire	4.7
10.	Romania	4.5
11.	Hungary	3.0
12.	India	3.0
13.	Chile	2.7
14.	Pakistan	2.5
	TOTAL	75.4
	1984	
1.	Sri Lanka	13.4
2.	Iran (Islamic Republic of)	11.6
3.	Poland	11.0
4.	Turkey	10.7
5.	Czechoslovakia	5.3
6.	Ghana	5.2
7.	Romania	3.5
8.	Lebanon	3.4
9.	Ethiopia	3.4
10.	Pakistan	3.2
11.	Zaire	2.4
12.	Iraq	2.3
	TOTAL	75.3
	1985	
1.	Sri Lanka	17.7
2.	Iran (Islamic Republic of)	12.7
3.	Turkey	9.9
4.	Poland	8.5
5.	Lebanon	5.2
6.	Ghana	5.1
7.	India	3.4
8.	Czechoslovakia	2.9
9.	Pakistan	2.9
10.	Romania	2.7
11.	Ethiopia	2.6
12.	Zaire	2.2
	TOTAL	75.6
	1986	
1.	Iran (Islamic Republic of)	19.0
2.	Poland	10.3
3.	Turkey	9.8
4.	Lebanon	6.1
5.	Ghana	5.3
6.	Sri Lanka	5.2
7.	India	4.0
8.	Romania	3.5
9.	Pakistan	2.5
10.	Czechoslovakia	2.4
11.	Ethiopia	2.1
12.	Zaire	2.1
13.	Hungary	2.0
14.	Chile	1.7
	TOTAL	76.1
	1987	
1.	Turkey	14.5
2.	Poland	11.6
3.	Iran (Islamic Republic of)	11.2
4.	USSR	5.6
5.	Sri Lanka	4.4
6.	Yugoslavia	4.2
7.	Hungary	3.8
8.	Romania	3.7
9.	Chile	3.7
10.	Ghana	3.3
11.	Zaire	3.2
12.	Czechoslovakia	2.8
13.	Pakistan	2.6
14.	Ethiopia	2.6
	TOTAL	77.4
	1988	
1.	Poland	19.0
2.	Turkey	15.1
3.	Yugoslavia	10.3
4.	Iran (Islamic Republic of)	8.4
5.	Romania	4.6
6.	Sri Lanka	3.5
7.	Lebanon	2.9
8.	Zaire	2.9
9.	Chile	2.8
10.	Hungary	2.6
11.	Pakistan	2.3
12.	Ghana	2.2
	TOTAL	76.4

TABLE 12 *(continued)*

Rank	Country of citizenship of asylum-seekers	Percentage of all asylum claims filed in Europe	Rank	Country of citizenship of asylum-seekers	Percentage of all asylum claims filed in Europe
	1989			*1990*	
1.	Turkey	16.9	1.	Romania	19.0
2.	Romania	13.6	2.	Turkey	11.5
3.	Poland	9.8	3.	Yugoslavia	7.7
4.	Yugoslavia	7.5	4.	Lebanon	6.9
5.	Sri Lanka	5.8	5.	Sri Lanka	4.0
6.	Iran (Islamic Republic of)	4.3	6.	Iran (Islamic Repubic of)	3.9
7.	Lebanon	4.3	7.	Poland	3.7
8.	Zaire	3.1	8.	Bulgaria	3.1
9.	Somalia	2.8	9.	Zaire	2.7
10.	Bulgaria	2.3	10.	India	2.7
11.	Ghana	2.3	11.	Viet Nam	2.5
12.	Czechoslovakia	2.2	12.	Somalia	2.4
13.	Pakistan	2.0	13.	Pakistan	2.3
	TOTAL	76.8	14.	Ghana	2.1
			15.	Afghanistan	2.1
				TOTAL	76.5

Source: United Nations High Commissioner for Refugees, unpublished tabulations.

tion of refugee in accordance with international instruments. Of the million or so refugees admitted during the period 1956-1979, all but 0.3 per cent originated in the transition economies; during 1982-1990, over 99.8 per cent of those admitted originated either in the transition economies (94.8 per cent) or in countries in the Middle East[3] (5 per cent) (United States Committee for Refugees, 1992). In 1992, four out of every five refugees admitted originated either in the former USSR (57 per cent) or in Viet Nam (22 per cent) (United States Committee for Refugees, 1993).

75. In addition to the formal programmes for the admission of refugees, Australia, Canada and the United States have also made allowance for the admission of persons in refugee-like situations on humanitarian grounds. For instance, in the United States of America, the Attorney-General has special authority to grant temporary admission ("parole") to aliens "under emergency (humanitarian) conditions or when [their] entry is determined to be in the public interest" (United States of America, 1991, p. A.2-7). Although the admission of parolees is supposed to be on a temporary basis (only until the conditions supporting their parole cease to exist), parolees have often been allowed to adjust their status to that of immigrants.

76. In Canada, the special immigration category of "designated classes" has been used to admit persons in need of protection that do not qualify as refugees under the 1951 Convention and the 1967 Protocol. Until 1990, there were three designated classes: (*a*) Indo-Chinese (from Cambodia, the Lao People's Democratic Republic and Viet Nam); (*b*) political prisoners and oppressed persons (from Chile, El Salvador, Guatemala and Poland); and (*c*) self-exiled persons (from transition economies, excluding Yugoslavia). In August 1990, the designated classes were amended to take account of political changes throughout the world. In accordance with the Comprehensive Plan of Action on Indo-Chinese Refugees, only Cambodians continue to qualify for resettlement under the Indo-Chinese class. Vietnamese and Lao do so only if they arrived in the first countries of asylum before the respective cut-off dates for the implementation of individual screening procedures. The second class now applies only to El Salvador and Guatemala, and the third class has been eliminated. Transitional measures have been adopted to handle cases lodged before those changes came into effect.

77. In Australia, a Special Humanitarian Programme allowing the admission of persons in refugee-like situations has been in operation since 1981. Between mid-1981 and mid-1988, the number of persons admitted under the Programme was equivalent to about one third of those admitted as refugees (table 13); and although in the early 1980s admissions under the Programme were small in relation to the number of refugees admitted, by 1987 the number of persons admitted on humanitarian grounds had surpassed that of refugee admissions (table 13). Indeed, during the early 1990s, persons admitted under the Special Humanitarian Programme accounted for at least two thirds of the total admitted as refugees. In Canada, the number of persons admitted under the designated classes has consistently surpassed the number of refugee admissions, sometimes by very wide margins. Consequently, during 1981-1991, 2.5 persons were admitted in the designated classes for every refugee (table 13).

78. In Australia, the sum of refugee and humanitarian admissions has declined steadily since 1980, partially as a result of the decision by the Government to reduce the overall immigration intake because of the high unemployment that the country has experienced in recent times. Admissions within the humanitarian programme are usually set at 15 per cent of the total (United States Committee for Refugees, 1993). In Canada and the United States of America, total admissions of refugees and persons admitted for humanitarian reasons have risen markedly since 1987 (tables 13 and 14). In both countries, most of the increase was associated with the growing numbers of persons originating in the transition economies. Indeed, in the United States, there was a dramatic change in the distribution of refugee admissions by area of chargeability: whereas during most of the 1980s refugees from Eastern and South-Eastern Asia had accounted for the major share of refugee admissions, in 1989 they were surpassed by refugees from transition economies (see table 14). By 1992, one in every two of the persons admitted as refugees by the United States origi-

TABLE 13. REFUGEE AND HUMANITARIAN ADMISSIONS BY AUSTRALIA AND CANADA, 1980-1991

Period[a]	Australia			Canada		
	Total	Refugees	Special Humanitarian Programme	Total refugees	Convention refugees	Designated classes
1980	21 847	..	..	40 348	..	..
1981	21 917	20 216	1 701	14 980	810	14 169
1982	17 054	16 193	861	16 927	1 791	15 134
1983	14 769	12 330	2 439	13 969	4 100	9 867
1984	14 850	9 680	5 170	15 342	5 625	9 717
1985	11 840	7 837	4 003	16 760	6 080	10 680
1986	11 101	5 990	5 111	19 147	6 490	12 657
1987	11 076	5 304	5 772	21 565	7 473	14 092
1988	11 887	3 623	7 264	26 836	8 741	18 095
1989	11 948	1 537	10 411	37 004	10 210	26 794
1990	7 745	1 267	6 478	39 689	11 398	28 291
1991	7 157	2 385	4 772	53 401	18 374	39 689

Sources: Australia, Department of Immigration, Local Government and Ethnic Affairs, *Australian Immigration: Consolidated Statistics, 1986, 1988 and 1991-1992*, Nos. 14, 15 and 17 (Canberra, 1988, 1989 and 1993); Canada, Employment and Immigration Canada, *Immigration Statistics*, issues for 1980-1991 (Ottawa).

[a]For Australia, periods are presented in terms of fiscal years, each comprising the 12-month period beginning on 1 July of the year in question.

TABLE 14. NUMBER OF REFUGEES APPROVED BY THE UNITED STATES OF AMERICA AND ADMISSION OF REFUGEES BY AREA OF CHARGEABILITY, 1982-1992

(Percentage)

Geographical area of chargeability	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1982-1992
Refugee approvals												
Africa	6.8	3.6	3.5	3.3	2.6	3.2	1.6	1.9	3.3	4.1	4.9	3.5
Eastern and South-eastern Asia	60.9	69.9	75.3	66.7	67.6	60.3	51.6	36.9	30.7	31.1	27.5	48.8
Eastern-bloc countries	22.4	18.2	14.0	16.8	18.3	20.0	33.2	50.9	59.1	58.0	59.1	37.8
Latin America and the Caribbean	0.9	1.0	0.2	3.1	0.1	0.2	3.1	3.0	1.9	2.1	3.6	1.9
Southern and Western Asia	8.9	7.4	7.0	10.1	11.5	16.4	10.5	7.3	5.0	4.7	4.9	7.9
TOTAL (thousands)	61.5	73.6	77.9	59.4	52.1	61.5	80.3	95.5	99.7	108.0	115.3	884.9
Refugee admissions												
Africa	3.5	4.2	4.0	3.1	2.2	3.1	2.1	2.0	3.3	4.6	5.0	3.4
Eastern and South-eastern Asia	74.8	62.8	72.6	72.0	71.4	59.9	43.7	36.6	33.8	37.0	29.7	50.4
Transition economies	14.4	22.8	15.5	15.6	15.9	18.6	36.0	47.9	51.8	46.6	53.0	34.2
Latin America and the Caribbean	0.5	1.3	0.2	0.3	0.1	1.4	5.4	5.0	5.3	5.1	4.4	3.0
Southern and Western Asia	6.8	9.0	7.7	9.1	10.4	15.9	11.8	7.6	5.1	5.9	7.2	8.3
Unknown	0.0	0.0	0.0	0.0	0.0	1.1	1.0	0.9	0.8	0.9	0.7	0.6
TOTAL (thousands)	93.3	57.1	67.8	62.5	58.3	66.8	80.4	101.1	110.2	100.2	123.0	920.6

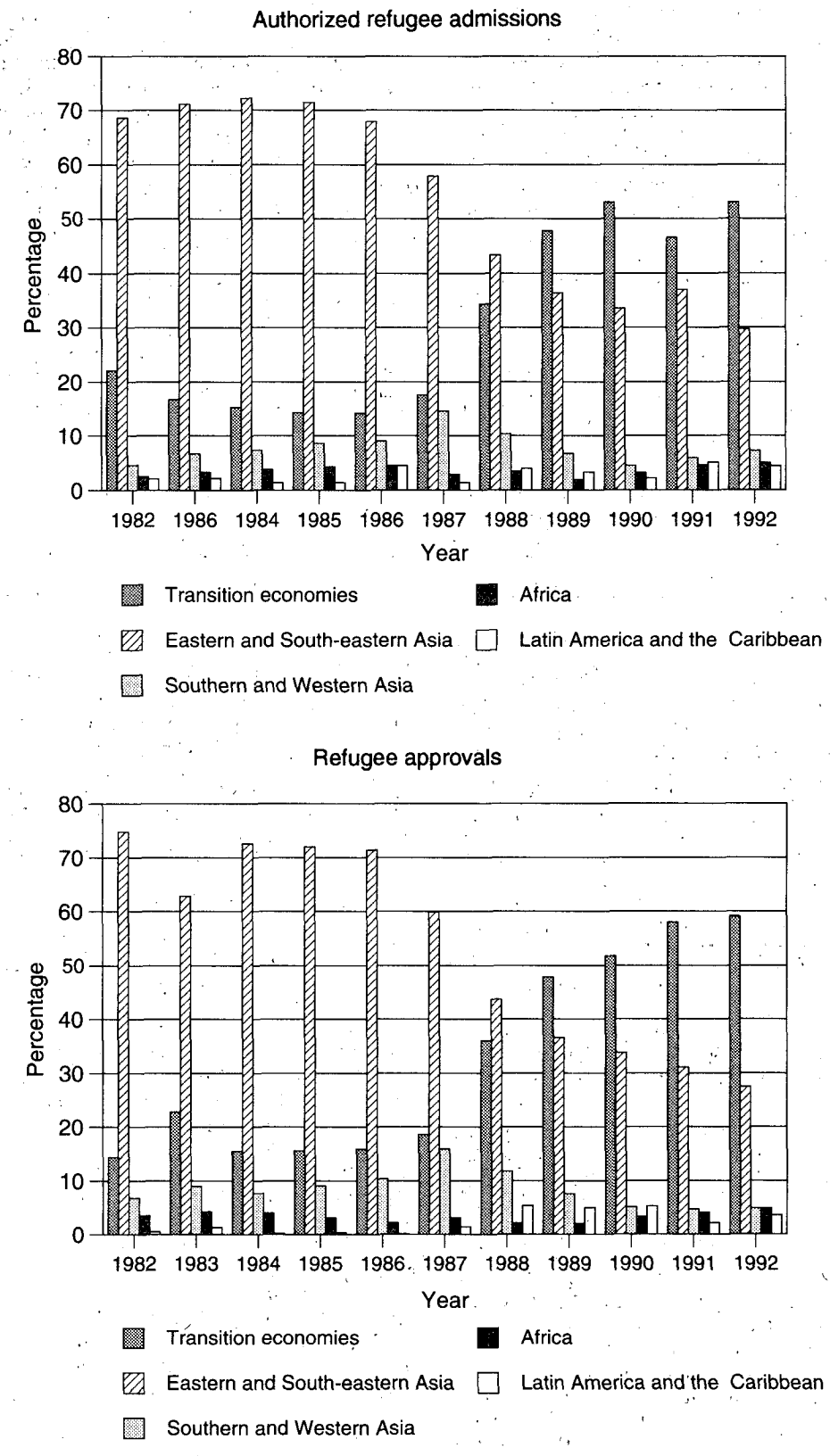
Source: United States of America, Immigration and Naturalization Service, *Statistical Yearbook of the Immigration and Naturalization Service, 1988, 1990* and *1992* (Washington, D.C., 1989, 1991 and 1993).

nated in the transition economies, especially in the former USSR. Such a change in distribution by region of origin was even more marked with respect to refugee approvals, the distribution of which is more closely associated with the planning levels or ceilings set annually by the President of the United States in consultation with the United States Congress (figure 7). Thus, whereas between 1987 and 1990, the overall ceiling rose only by 58 per cent (from 70,000 to 110,000), the number allocated to the transition economies increased nearly fivefold, from 12,300 to 58,300 (United States of America, 1991).

79. Although most of the refugees admitted by the countries of permanent immigration are granted refugee status while still abroad, all countries have provisions allowing aliens already present in their territories to apply for asylum. During the 1980s, the rising number of asylum applications taxed considerably the systems in place to process them. Thus, although Australia received only 1,300 applications for asylum in 1991, by the end of the year there was a backlog of nearly 23,000, of which 72 per cent were filed by nationals of China (United States Committee for Refugees, 1992). In Canada, the backlog had grown to some 95,000 cases just before a new procedure for assessing asylum claims was instituted on 1 January 1989. By October 1992, about 92,000 cases had been considered, of which 58 per cent had been approved (United States Committee for Refugees, 1993). Under the new system, 21,745 asylum claims had been filed in 1989 and about 36,000 in 1990 (Burstein, 1991). The Canadian adjudication system has been characterized by approving very high proportions of cases, though a declining trend is emerging: the proportion approved dropped from 88 per cent in 1989 to 77 per cent in 1990, 72 per cent in 1991 and 57 per cent in 1992 (United States Committee for Refugees, 1992, 1993). In December 1992, the Canadian Government approved a bill tightening the enforcement of asylum procedures. The bill included, among other things, sanctions on airlines for carrying improperly documented passengers, provisions to fingerprint asylum-seekers and higher fines for those engaged in smuggling undocumented aliens.

80. In the United States, the number of asylum applications peaked at 62,000 in 1981, declined to 17,000 in 1985

Figure 7. Distribution of refugee admissions as authorized by the President of the United States of America and of actual refugee approvals by area of chargeability, 1982-1992

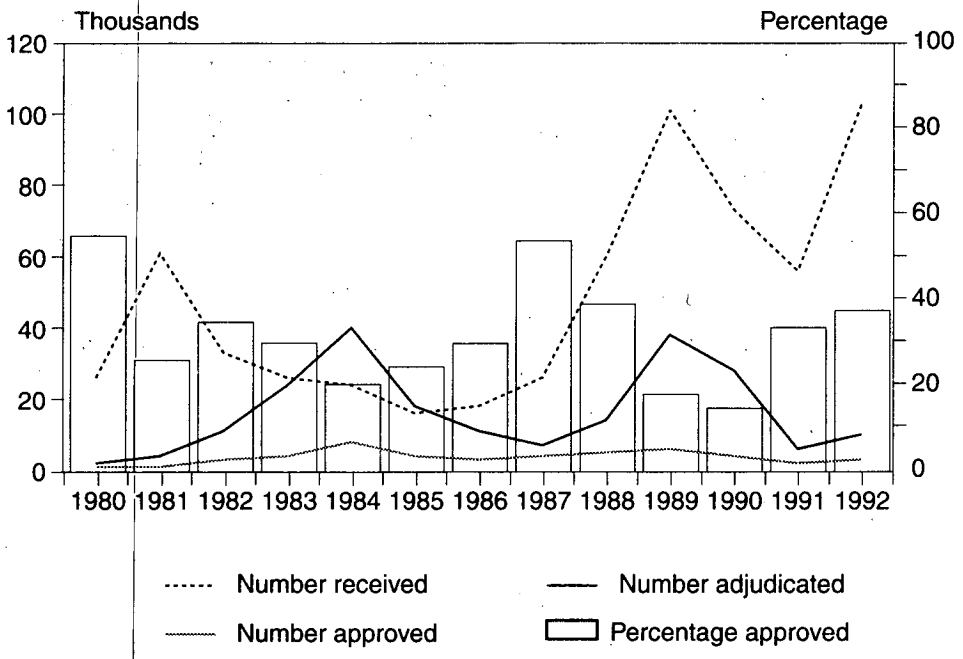


Source: Table 14.

and has increased markedly since then to reach over 104,000 in 1992 (figure 8). However, the number of cases adjudicated remained considerably lower, peaking in 1984 at 41,000 and again in 1989 at over 38,000. The proportion of cases approved among those adjudicated has also varied considerably, tending to remain between 20 and 40 per cent, rising when the number of cases adjudicated is low and dropping when they increase. Overall, during 1980-1992, the United States received 630,000 asylum applications, 217,000 of which were adjudicated. Among the latter, only one fourth were approved. Although there is no ceiling on the number of asylum requests that may be approved annually, the 1990 Immigration Act establishes that at most 10,000 asylees per annum may adjust annually to immigrant status. One year of residence is required before such adjustment can take place (United States of America, 1991).

81. During 1984-1990, asylum-seekers from El Salvador, Guatemala and Nicaragua accounted for about 64 per cent of the cases adjudicated by United States authorities (table 14 and figure 9). Sharp differences in the result of asylum adjudications existed among citizens of those three countries (table 15). Whereas 26 per cent of all Nicaraguan asylum claims filed during 1984-1992 were approved, 2.6 per cent of those corresponding to Salvadorians and 1.8 per cent to Guatemalans were approved. The differential outcomes of asylum adjudication for Guatemalan and Salvadorian

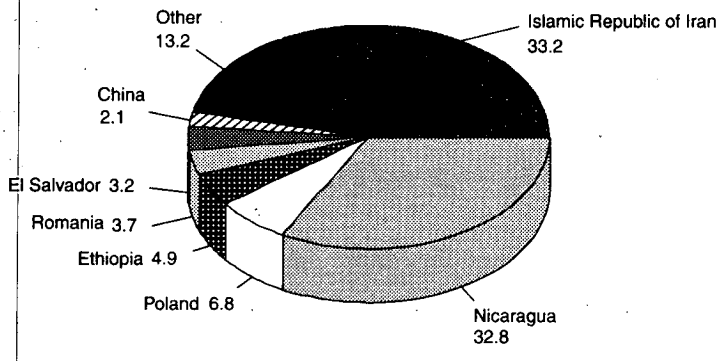
Figure 8. Asylum applications received, adjudicated and approved by the authorities of the United States of America, 1980-1992



Source: United States, Immigration and Naturalization Service, *Statistical Yearbook of the Immigration and Naturalization Service*, various years (Washington, D.C.).

Figure 9. Distribution of persons granted asylum by the United States of America, by selected country of citizenship, 1984-1990

(Percentage)



Total number of persons granted asylum: 49,759

Source: United States of America, Immigration and Naturalization Service, *Statistical Yearbook of the Immigration and Naturalization Service, 1990* (Washington, D.C., 1991).

TABLE 15. NUMBER OF ASYLUM APPLICATIONS GRANTED AND DENIED BY AUTHORITIES OF THE UNITED STATES OF AMERICA, BY SELECTED COUNTRY OF CITIZENSHIP, 1984-1992

Country of citizenship	*1984*	*1985*	*1986*	*1987*	*1988*	*1989*	*1990*	*1984-1990*	*1992*
				A. *Number of applications granted*					
El Salvador	328	74	55	29	110	337	226	1 159	88
Guatemala	3	5	5	7	24	67	58	169	63
Nicaragua	1 018	408	1 082	1 867	2 786	3 617	1 444	12 222	182
Subtotal	1 349	487	1 142	1 903	2 920	4 021	1 728	13 550	333
All citizenships	8 278	4 585	3 359	4 062	5 531	6 942	4 173	36 930	3 919
				B. *Number of applications denied*					
El Salvador	13 045	2 299	1 149	776	3 822	13 861	8 648	43 650	211
Guatemala	758	427	209	178	447	3 325	3 999	9 343	233
Nicaragua	7 274	4 363	2 873	357	2 455	10 486	7 460	35 268	1 083
Subtotal	21 077	7 089	4 231	1 311	6 724	27 672	20 107	88 211	1 527
All citizenships	32 344	14 172	7 882	3 454	8 582	31 547	24 156	122 137	6 506
				C. *Approval rate*					
El Salvador	2.5	3.1	4.6	3.6	2.8	2.4	2.5	2.6	29.4
Guatemala	0.4	1.2	2.3	3.8	5.1	2.0	1.4	1.8	21.3
Nicaragua	12.3	8.6	27.4	83.9	53.2	25.6	16.2	25.7	14.4
Subtotal	6.0	6.4	21.3	59.2	30.3	12.7	7.9	13.3	24.0
All citizenships	20.4	24.4	29.9	54.0	39.2	18.0	14.7	23.2	37.6

Source: United States of America, Immigration and Naturalization Service, *Statistical Yearbook of the Immigration and Naturalization Service, 1983-1990, 1992* (Washington, D.C.).

[a]Data are reported by fiscal year, which covers the 12-month period beginning 1 October and ending on 30 September of the year in question.

asylum- seekers in relation to those of Nicaraguan asylum claims formed the basis for the lawsuit of *American Baptist Churches* v. *Thornburgh*, the then Attorney-General of the United States. In December 1990, the United States Government agreed to the settlement of the suit. Under the terms of the settlement, all Salvadorians present in the United States as of 19 September 1990 and all Guatemalans in the United States as of 1 October 1990 became eligible for new hearings of their asylum claims (United States Committee for Refugees, 1991). Pending such reexamination, the asylum-seekers concerned were granted permission to stay in the country and work (Blum, 1991). The number of asylum applications filed by Salvadorians and Nicaraguans has declined in recent years and the proportion of favourable decisions has increased somewhat. Thus, in 1992, 29.4 per cent of the adjudicated asylum applications filed by Salvadorians and 21.3 per cent of those filed by Guatemalans were approved.

82. In October 1990, the United States immigration authorities replaced the interim asylum procedures that had been in place since the passage of the 1980 Refugee Act. Under the new procedures, a corps of specially trained asylum officers was created and given the exclusive task of processing asylum claims. In addition, a documentation centre was established to report on human rights conditions in the countries of origin of asylum-seekers (Helton, 1990). The final asylum regulations codified the Supreme Court ruling in 1987 in the case of the *United States Immigration and Naturalization Service* v. *Cardoza-Fonseca,* which stated that asylum applicants need only establish a "well-founded fear of persecution" to be eligible for asylum rather than the more stringent "clear probability of persecution" that the Government had been using as standard before the Court's decision (United States Committee for Refugees, 1988, p. 75).

83. On 29 November 1990, a new Immigration Act was signed into law in the United States. The Act establishes, *inter alia,* that the Attorney-General may extend "temporary protected status" or "extended voluntary departure" to citizens of countries experiencing armed conflict or natural disasters or other extraordinary and temporary conditions (Vialet and Eig, 1990). The Act itself granted temporary protected status to undocumented Salvadorians: from 1 January 1991 to 30 June 1992 they were not to be deported and had the right to work. During 1991, the Attorney-General granted temporary protected status to nationals of Kuwait, Lebanon, Liberia and Somalia.

84. In September 1991, the overthrow of the Government of President Aristide in Haiti led to the flight of numerous Haitians. Most of them left by boat with the intention of seeking asylum in the United States. The overwhelming majority were interdicted by the United States Coast Guard. Since 1981, when an interdiction programme was instituted, over 23,000 Haitians have been interdicted at sea and, prior to November 1991, returned to Haiti. In November 1991, after the United States Government returned about 540 Haitians to Port-au-Prince, a federal judge at Miami issued a temporary restraining order preventing further involuntary repatriations. During the rest of the year, as the matter was debated in the courts, involuntary returns were halted; however, Haitians continued to be interdicted at sea and taken to the United States naval base at Guantánamo Bay, Cuba, where their asylum applications were pre-screened by immigration officers. At the end of 1991, 8,377 Haitians had been interdicted, 6,780 remained at Guantánamo, 391 had been taken to the United States to pursue their asylum claims, about 500 had repatriated voluntarily and the rest had been moved to Honduras and Venezuela, countries that had agreed to grant them temporary asylum. In a move intended to protect bona fide refugees, the United States Government began processing asylum requests at its Embassy in Port-au-Prince in January 1992. In May 1992, the pre-screening of asylum requests of newly interdicted Haitians was eliminated and they were repatriated to Haiti. During fiscal year 1992, the third largest number of asylum applications — 5,374 cases — was filed by Haitians (United States of America, 1993).

Only 262 cases involving Haitians were adjudicated, however, and 32 per cent of them were approved.

NOTES

[1] The area of the former State of Yugoslavia currently comprises the independent States of Bosnia and Herzegovina, Croatia, Slovenia, the former Yugoslav Republic of Macedonia and the Federal Republic of Yugoslavia.

[2] The area of the former Union of Soviet Socialist Republics currently comprises: (*a*) the three Baltic States (Estonia, Latvia and Lithuania); and (*b*) the 12 republics that have constituted themselves into the Commonwealth of Independent States (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Republic of Moldova, Russian Federation, Tajikistan, Turkmenistan, Ukraine and Uzbekistan).

[3] The countries included in the regional divisions used in this chapter do not in all cases conform to those included in the geographical regions established by the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat.

REFERENCES

Australia, Department of Immigration, Local Government and Ethnic Affairs (1988). *Australian Immigration: Consolidated Statistics, 1986.* No. 14. Canberra.

_____ (1989). *Australian Immigration: Consolidated Statistics, 1988.* No. 15. Canberra.

_____ (1993). *Australian Immigration: Consolidated Statistics, 1991–1992.* No. 17. Canberra.

Berthiaume, Christiane (1991). End of exile brings new fears. *Refugees* (Geneva), No. 87 (October), p. 24.

Billard, Annick (1987). Repatriation to El Salvador: making up for lost time. *Refugees* (Geneva), No. 48 (December), pp. 10-13.

Blum, Carolyn Patty (1991). The settlement of *American Baptist Churches v. Thornburgh:* landmark victory for Central American asylum seekers. *International Journal of Refugee Law* (Oxford), vol. 3, No. 2 (April), pp. 347-356.

Burstein, Meyer (1991). Immigration in Canada. Report of the SOPEMI correspondent for Canada to the Organisation for Economic Co-operation and Development. Ottawa. Mimeographed.

Canada, Employment and Immigration Canada (various years, 1989-1991). *Immigration Statistics.* Ottawa.

De Almeida e Silva, Manoel (1991). Persian Gulf exodus stretched resources. *Refugees* (Geneva), No. 87 (October), pp. 12-15.

Feller, Erika (1989). Carrier sanctions and international law. *International Journal of Refugee Law* (Oxford), vol. 1, No. 1 (January), pp. 48-66.

Frelick, Bill (1991). Running the gauntlet: the Central American journey through Mexico. *International Journal of Refugee Law* (Oxford), vol. 3, No. 2 (April), pp. 208-241.

Girard, Sylvie (1991). Solutions in sight. *Refugees* (Geneva), No. 87 (October), pp. 10-11.

Goodwin-Gill, Guy S. (1992). Safe country? Says who? *Refugees* (Geneva), No. 89 (May), pp. 37-38.

Hawkins, Freda (1989). *Critical Years in Immigration: Canada and Australia Compared.* Kingston, Ontario: McGill-Queen's University Press.

Helton, Arthur C. (1989). Asylum and refugee protection in Thailand. *International Journal of Refugee Law* (Oxford), vol. 1, No. 1 (January), pp. 20-47.

_____ (1990). Final asylum rules in the United States: new opportunities and challenges. *International Journal of Refugee Law* (Oxford), vol. 2, No. 4 (October), pp. 642-646.

JK (1989). From political commitment to practical action. *Refugees* (Geneva), No. 66 (July), pp. 7-9.

Keats, Michael (1992). South Africa: facing reality. *Refugees* (Geneva), No. 89 (May), pp. 35-36.

Kessler, Peter (1992). Jet set refugees. *Refugees* (Geneva), No. 88 (January), pp. 35-37.

Lamb, Sidni (1987). Guatemalan exiles and returnees. *Refugees* (Geneva), No. 44 (August), pp. 30-31.

Loescher, Gil (1991). Inside the golden door. *Refugees* (Geneva), No. 82 (January-February), pp. 29-31.

Nobel, Peter (1990). What happened with Sweden's refugee policies? *International Journal of Refugee Law* (Oxford), vol. 2, No. 2 (April), pp. 265-273.

Organisation for Economic Co-operation and Development (1992). *SOPEMI: Trends in International Migration; Continuous Reporting System on Migration.* Paris.

Otsea, Jenifer (1991). CIREFCA at the crossroads. *Refugees* (Geneva), No. 87 (October), pp. 16-17.

Rogge, John R., and Joshua O. Akol (1989). Repatriation: its role in resolving Africa's refugee dilemma. *International Migration Review* (Staten Island, New York), vol. 23, No. 2 (Summer), pp. 184-200.

Ruff, Anne (1989). The United Kingdom Immigration (carriers' liability) Act of 1987: its implications for refugees and airlines. *International Journal of Refugee Law* (Oxford), vol. 1, No. 4 (October), pp. 481-500.

Ruiz, Hiram A. (1992). Liberia: the honeymoon is over. *Refugees* (Geneva), No. 88 (January), p. 30-34.

Salt, John (1992). International migration and the United Kingdom. Report of the United Kingdom SOPEMI correspondent to the Organisation for Economic Co-operation and Development, 1991, London. Mimeographed.

Suhrke, Astri (1991). Refugees in Asia: problems and practices of asylum for Indo-Chinese and Afghan refugees. Paper presented at the Economic Commission for Europe and the United Nations Population Fund Informal Expert Group Meeting on International Migration, Geneva, 16-19 July 1991. Mimeographed.

United Nations (1982). *International Migration Policies and Programmes: A World Survey.* Population Studies, No. 80. Sales No. E.82.XIII.4.

_____ (1985). *World Population Trends, Population and Development Interrelations and Population Policies: 1983 Monitoring Report,* vol. I, *Population Trends.* Population Studies, No. 93. Sales No. E.84.XIII.10.

_____ (1989). International Conference on Indo-Chinese Refugees: report of the Secretary-General. A/44/523.

_____ (1991). Final Act of the Paris Peace Conference on Cambodia. A/46/608-S/23177.

_____ (1992). *World Population Monitoring, 1991. With Special Emphasis on Age Structure.* Population Studies, No. 126. Sales No. E.92.XIII.2.

_____ (1993a). Report of the Commissioner-General of the United Nations Relief and Works Agency for Palestine Refugees in the Near East (1 July 1991–30 June 1992). In *Official Records of the General Assembly, Forty-sixth Session, Supplement No. 13.* A/46/13.

_____ (1993b). Resolutions and decisions of the Security Council: 1991. *Security Council Official Records, Forty-sixth Year.*

_____ (1993c). United Nations Peace-keeping Operations Information Notes, 1993: Update No. 2. ST/DPI/1306/Rev.2.

United Nations High Commissioner for Refugees (1985). Report on UNHCR activities in 1984-85 and proposed voluntary fund programmes and budgets for 1985. A/AC.96/657.

_____ (1989a). CIREFCA: an essential step forward. By the Regional Bureau for Latin America and the Caribbean. *Refugees* (Geneva), No. 62 (March), pp. 19-21.

_____ (1989b). UNHCR activities financed by voluntary funds: report for 1988-89 and proposed programmes and budget for 1990. A/AC.96/724.

_____ (1990a). A continent in crisis. *Refugees* (Geneva), No. 81 (December), pp. 9-11.

_____ (1990b). UNHCR activities financed by voluntary funds: report for 1989-90 and proposed programmes and budget for 1991. A/AC.96/751.

_____ (1991). UNHCR activities financed by voluntary funds: report for 1990-91 and proposed programmes and budget for 1992. A/AC.96/774.

_____ (1992). Going home. *Refugees* (Geneva), No. 88 (January), pp. 6-11.

_____ (1993). *The State of the World's Refugees: the Challenge of Protection,* Middlesex, United Kindom: Penguin Books.

United States Committee for Refugees (1988). *World Refugee Survey: 1987 in Review.* Washington, D.C.

_____ (1991). *World Refugee Survey: 1991.* Washington, D.C.

_____ (1992). *World Refugee Survey: 1992.* Washington, D.C.

_____ (1993). *World Refugee Survey: 1993.* Washington, D.C.

United States of America, Department of Justice, Immigration and Naturalization Service (1989). *1988 Statistical Yearbook of the Immigration and Naturalization Service*. Washington, D.C.: Government Printing Office.

_____ (1990). *1989 Statistical Yearbook of the Immigration and Naturalization Service*. Washington, D.C.: Government Printing Office.

_____ (1991). *1990 Statistical Yearbook of the Immigration and Naturalization Service*. Washington, D.C.: Government Printing Office.

_____ (1993). *1992 Statistical Yearbook of the Immigration and Naturalization Service.* Washington, D.C.: Government Printing Office.

Vialet, Joyce C., and Larry M. Eig (1990). *Memorandum S. 358 the Immigration Act of 1990, as approved by the Congress.* Washington, D.C.: The Library of Congress, Congressional Research Service.

Widgren, Jonas (1990). Survey on the functioning of asylum procedures in States in Europe and North America. United Nations High Commissioner for Refugees. Mimeographed.

Part Two

POPULATION TRENDS AND POLICIES

II. POPULATION GROWTH

A. POPULATION SIZE AND GROWTH

1. *World population size and growth*

85. The population of the world was estimated to be 5.5 billion at mid-1992. It is currently growing at a rate of 1.7 per cent per annum, which means that 93 million persons were estimated to be added to the total world population during 1992.

86. The world population more than doubled between 1950 and 1992, rising from 2.5 billion to 5.5 billion persons. According to the United Nations medium-variant projections, the total population will further increase by an additional 749 million to reach 6.2 billion; and by the year 2025, those projections indicate that the world population may reach 8.5 billion (United Nations, 1993).

87. Having held steady at about 1.7 per cent per annum since 1975, world population growth is expected to decline to 1.6 per cent per annum during 1995-2000, falling to the lowest growth rate since the end of the Second World War (see table 16). Beyond 2000, the world population growth rate is expected to decline steadily to 1.0 in 2020-2025.

88. The population of the world increased by 441 million, or 88 million additional persons per annum, between 1985 and 1990. The annual addition to the population in 1950-1955 was 47 million per annum and it has been growing since then. These population increments are expected to continue increasing up to the period 1995-2000, when 94 million additional people may be added to the population each year (table 16). During the period 2000-2025, however, the average annual increment to the world population is projected to decrease to 85 million persons per annum.

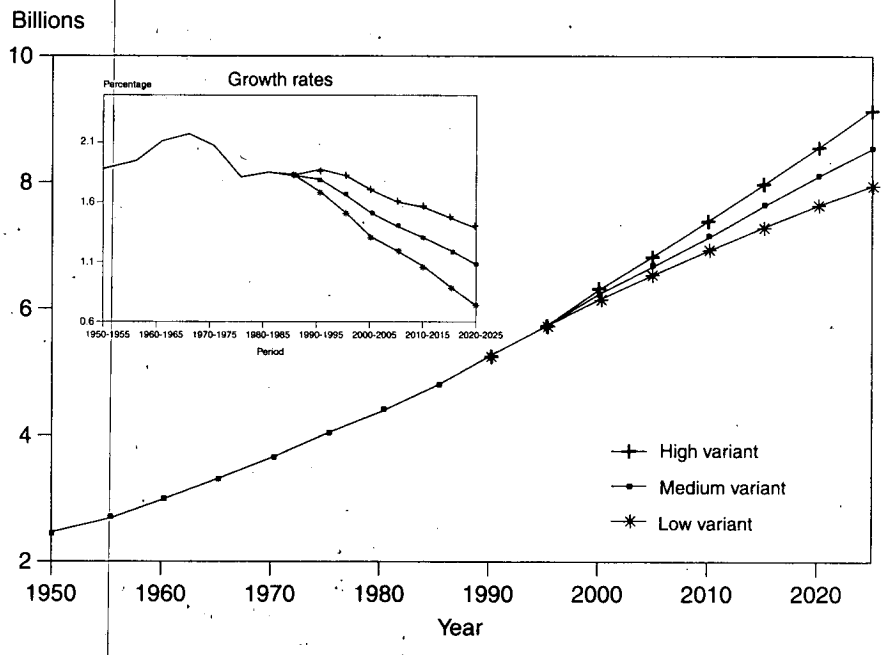
89. These figures are from the medium variant of the United Nations global population projections. The population is also projected forward to the year 2025 under three other assumptions of the course of fertility.[1] Beginning from a population of 5.3 billion in 1990 as the base, the world population is expected to reach 9.1 billion in 2025 under the high fertility assumption (high variant), compared with

TABLE 16. WORLD POPULATION GROWTH AND ANNUAL INCREMENT: MEDIUM-VARIANT PROJECTIONS, 1990-2025

Period	*Annual increment (millions)*	*Annual growth rate (percentage)*
1950-1955	47	1.8
1965-1970	72	2.1
1975-1980	74	1.7
1985-1990	88	1.7
1990-1995	93	1.7
1995-2000	94	1.6
2020-2025	85	1.0

Source: *World Population Prospects: The 1992 Revision* (United Nations publication, Sales No. E.93.XIII.7).

Figure 10. Medium, high and low variants of world population size, 1950-2020



Source: World Population Prospects: The 1992 Revision (United Nations publication, Sales No. E.93.XIII.7).

BOX 4. LONG-RANGE POPULATION PROJECTIONS

The population of the world more than doubled between 1950 and 1990, increasing from 2.5 billion to 5.3 billion persons. According to a set of medium-variant assumptions, the world population will reach 8.5 billion by the year 2025. An extension of this projection, 125 years into the future, to 2150, projects a doubling of the 1990 population by the middle of the twenty-first century. Under the medium-fertility extension, the world population will ultimately stabilize at 11.6 billion people shortly after 2200[a].

The world population was projected to 2150 with seven different assumptions on the future trend of fertility. The medium-fertility extension has fertility levels stabilize at relacement level (about 2.1 children per woman). The medium/low- and the low-fertility extensions have fertility levels stabilize below replacement level and the medium/high- and high-fertility extensions have fertility stabilize above replacement level. The two other extensions are: (*a*) fertility levels will remain unchanged to the end of the projection period, and (*b*) fertility levels will decline "instantly" to replacement level (in 1990-1995) and remain at that level through 2150. The seven extensions are in one sense arbitrary, in that an unlimited set of future scenarios could be hypothesized.

According to the medium-fertility extension, the population of the world will increase from 5.3 billion in 1990 to 10 billion in 2050, an increase of 89 per cent. The growth of population will then slow considerably during the following 50 years, to reach 11.2 billion in 2100. An even further reduction in the growth rate will result in a population of 11.5 billion in 2150 (see table).

WORLD POPULATION GROWTH FROM YEAR 0 TO STABILIZATION

Year	*Population (billions)*	*Year*	*Population (billions)*	*Year*	*Population (billions)*	*Year*	*Population (billions)*
0	0.30	1900	1.65	1950	2.52	1992	5.48
1000	0.31	1910	1.75	1960	3.02	2000	6.23
1250	0.40	1920	1.86	1970	3.70	2025	8.47
1500	0.50	1930	2.07	1980	4.45	2050	10.02
1750	0.79	1940	2.30	1990	5.30	2075	10.84
1800	0.98	—	—	—	—	2100	11.19
1850	1.26	—	—	—	—	2125	11.39
—	—	—	—	—	—	2150	11.54

[a] *Long-range World Population Projections: Two Centuries of Population Growth, 1950-2150* (United Nations publication, Sales No. E.92.XIII.3); "World population growth from year 0 to stabilization", United Nations, New York, 2 June 1993; mimeographed.

The other fertility extensions produce a wide range of results. For example, in the high extension, where fertility stabilizes at 2.5 children, the world population would reach 12.5 billion in 2050, 19.2 billion in 2100 and 28.0 billion in 2150. In contrast, in the low extension, where fertility stabilizes at 1.7 children, the world population would increase to 7.9 billion in 2025 and would then decline to 6.0 billion in 2100 and 4.3 billion in 2150.

It is clear, that a wide range of uncertainity exists with regard to the future size of the world population. Even the medium/low and the medium/high variants, which differ by only 10 per cent in assumed ultimate fertility levels, result in projected populations in the year 2150 of 5.6 billion and 20.8 billion, respectively.

8.5 billion with the medium variant (figure 10). In the low-fertility variant projection, the population in 2025 is expected to be 7.9 billion. As a comparison, a fourth assumption — constant fertility up to 2020-2025 at the 1985-1990 levels —was also projected. Under this assumption, the world population would reach 10.4 billion in 2025. (For some long-range projections, see box 4.)

90. In the medium-variant projections, the world population growth rate will decrease from the 1985-1990 level of 1.7 per cent per annum to 1.0 per cent by 2020-2025. In the high and low variants, growth rates are expected to decline to 1.3 and 0.7 per cent, respectively, by 2020-2025.

Phases of world population growth

91. Since the Second World War, there have been three phases of population growth: (*a*) a rapid increase in the rate of population growth from 1950 to 1970; (*b*) a steep decline in the population growth rate during the 1970s; and (*c*) a relatively constant rate of population growth from the late 1970s to the present. A fourth phase of population growth—a rapid decrease in the population growth rate—was expected to begin after 1990. For the world as a whole, the population growth rate is simply the difference between the crude birth rate and the crude death rate. This description itself may be simple, but examining changes in the population growth rate in light of these underlying vital rates contributes to a fuller understanding of the four phases of population growth.

92. The first phase is associated with the rapid population expansion during the two decades following the Second World War. This rapid population growth is often referred to as being "mortality-induced". The increase in the population growth rate from 1.79 per cent per annum in 1950-1955 to 2.06 per cent per annum in 1965-1970 resulted from the combination of a rapid decrease in crude death rates (from 19.7 to 13.3 per 1,000) and a smaller decline in the crude birth rates (from 37.5 per 1,000 in 1950-1955 to 33.9 in 1965-1970) (table 17).

93. The rapid decline in the rate of population growth during phase II can, in a parallel fashion, be described as being "fertility-driven". After 1970, crude birth rates declined relatively rapidly, from 33.9 per 1,000 in 1965-1970 to 28.3 in 1975-1980; meanwhile, crude death rates also declined but at a slower pace than in phase I, from 13.3 per 1,000 in 1965-1970 to 11.1 in 1975-1980.

94. Since 1975, the world population growth rate has been relatively constant, and it remained so during phase III until 1990. Between 1975 and 1990, the crude birth rate declined at a slower pace than in phase II, only decreasing from 28.3 to 27.0 per 1,000. During that period, crude death rates also declined at a slower pace, from 11.1 to 9.7 per 1,000. The slow-down in the decline of the crude birth rate and the crude death rate explains the stagnation of the growth rate between 1980 and 1990.

95. Two factors contribute to the slowing of the crude birth rate decline. The first is a slowing of the decline in the total fertility rate and the second, a change in the age structure of the population. In an analysis of the factors influencing the global population growth rate, Horiuchi (1992) attributes the stagnation in the decline of TFR during 1975-1985 to: (*a*) stagnation of declines in TFRs of the two largest countries in the world, China and India, between 1975-1980 and 1980-1985; and (*b*) the fact that significant fertility declines began in only a few new countries during the period 1975-1985, compared with the initiation of

TABLE 17. PHASES OF WORLD POPULATION GROWTH

Period	Crude birth rate (per 1000)	Crude death rate (per 1000)	Population growth rate (percentage)
Phase I. *Rapid increase in population growth rate*			
1950-1955	37.5	19.7	1.79
1965-1970	33.9	13.3	2.06
Change	–3.6	–6.4	+0.27
Phase II. *Rapid decrease in population growth rate*			
1965-1970	33.9	13.3	2.06
1975-1980	28.3	11.1	1.73
Change	–5.6	–2.2	–0.33
Phase III. *Relatively constant population growth rate*			
1975-1980	28.3	11.1	1.73
1985-1990	27.0	9.7	1.74
Change	–1.3	–1.4	+0.01
Phase IV. *Rapid decrease in population growth rate*			
1985-1990	27.0	9.7	1.74
2020-2025	17.9	7.7	1.02
Change	–9.1	–2.0	–0.72

Source: World Population Prospects: The 1992 Revision (United Nations publication, Sales No. E.93.XIII.7).

declines in fertility in many developing countries around 1970.

96. Changes in the age structure caused by past declines in birth rates result in the number of women of reproductive age being relatively large compared with the number of children. The effect of this change in the age structure is an increase in the number of births resulting in an upward pressure on the crude birth rate. During 1975-1990, the potential crude birth rate decline resulting from a decline in TFR (albeit small) was partially offset by the upward pressure on the crude birth rate resulting from a change in the age structure.

97. During phase IV of population growth, a rapid decrease in population growth rate is expected under the medium-variant projections. Although the increase in the proportion of elderly people will be unfavourable for further decreases in the crude death rate (nevertheless, it is projected to decline from 9.7 to 7.7 per 1,000 between 1985-1990 and 2020-2025), continued fertility decline and changes in the age structure will have a strong impact on the crude birth rate. Under the medium-variant projections, the rate shows a decline of 9.1 percentage points, from 27.0 per 1,000 in 1985-1990 to 17.9 in 2020-2025. This projection leads to an unprecedented decline in the population growth rate, from 1.74 per cent per annum in 1985-1990 to 1.02 in 2020-2025.

98. The four phases of world population growth described above are also a good description of growth for regions and for many countries. Any one region or country may be at a different phase of growth at any given time. For example, the more developed regions reached phase IV of population growth around 1960 when, after a period of stagnant growth, population growth rates declined from 1.19 per cent per annum in 1960-1965 to 0.64 in 1985-1990. On the other hand, the less developed regions were still in phase III of population growth in 1985-1990 but may move to phase IV during the period 1990-1995.

99. Individual countries also experience the different phases of population growth. China, the largest country in the world, entered phase III of population growth in 1975-1980 when its growth rate was 1.43 per cent per annum, after having declined from a peak of 2.61 per cent per annum in 1965-1970. From 1975-1980 to 1985-1990, its growth rate remained more or less at 1.4 per cent per annum and is expected to continue to remain so until 1990-1995, after which the country is expected to enter phase IV. Whether a country experiences phase III (stagnation of growth rates) or how long a country remains in any one phase could also vary. It depends to some extent upon the magnitude of declines in TFR and upon whether the upward pressure on the crude birth rate resulting from changes in the age structure can offset the effect of a TFR decline.

2. *Regional population size and growth*

100. Population growth levels and trends differ markedly between the more developed and the less developed regions, as well as among the major areas of both regions. In the sections that follow, population growth and distribution among the more developed and the less developed regions and the major areas and regions of the world are explored. The distribution of countries according to their population growth rate in 1985-1990 and size in 1992 is also discussed.

More developed and less developed regions

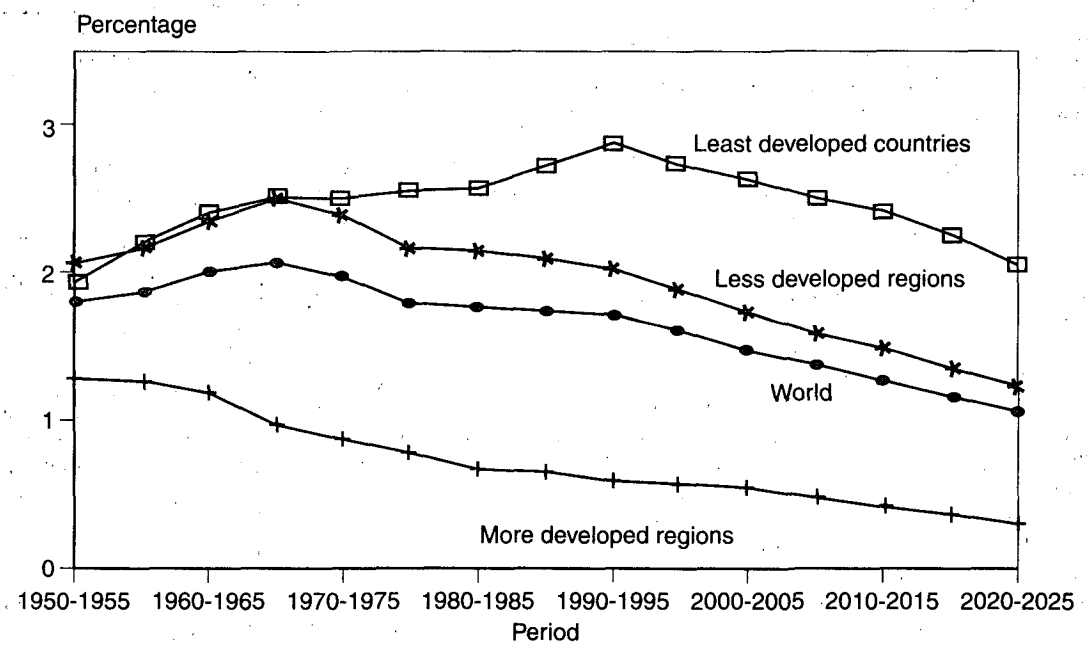
101. During the period 1985-1990, the annual population growth rate of the more developed regions of the world was 0.6 per cent. These regions were then growing at a rate of less than one third of the growth rate of the less developed regions, which was 2.1 per cent per annum. The 47 least developed countries[2], on the other hand, were growing at an even faster pace at that time. Their growth rate, in 1985-1990, was 2.7 per cent (figure 11).

102. There has been a marked difference in growth rates between the more developed and the less developed regions since at least 1950. During 1950-1955, the growth rate of the more developed regions was 1.3 and that of the less developed regions was about 60 per cent higher, 2.0 per cent per annum. During that period, the less developed regions were at the beginning of phase I of the transition discussed above, whereas the more developed regions were at the end of phase III of the transition. From 1950-1955 up to the period 1965-1970, the less developed regions were growing very rapidly, with growth rates of 2.0 in 1950-1955 rising to 2.5 in 1965-1970. The growth rate of the more developed regions, on the other hand, decreased from 1.3 per cent per annum in 1950-1955 to 0.9 in 1965-1970. These trends resulted in an increase in the gap between the growth rates of the more developed and the less developed regions, from 0.8 percentage points in 1950-1955 to 1.6 percentage points in 1965-1970 (figure 12). Since 1965, growth rates in both the more developed and the less developed regions[3] have been declining.

103. Beyond 1990, the growth rates in both the more developed and the less developed regions are projected to continue their declining trend up to the end of the projection period 2020-2025. By 2025, the growth rate of the more developed regions is projected to be 0.2 per cent and that of the less developed regions, 1.2 per cent. By contrast, among the least developed countries, the growth rate is expected to continue its increasing trend up to 1990-1995, when it may peak at 2.9 per cent and then decline to 2.1 per cent by 2020-2025. The growth rate of the least developed countries during 1985-1990 is higher than the growth rates of the less developed regions at any period between 1950 and 2025.

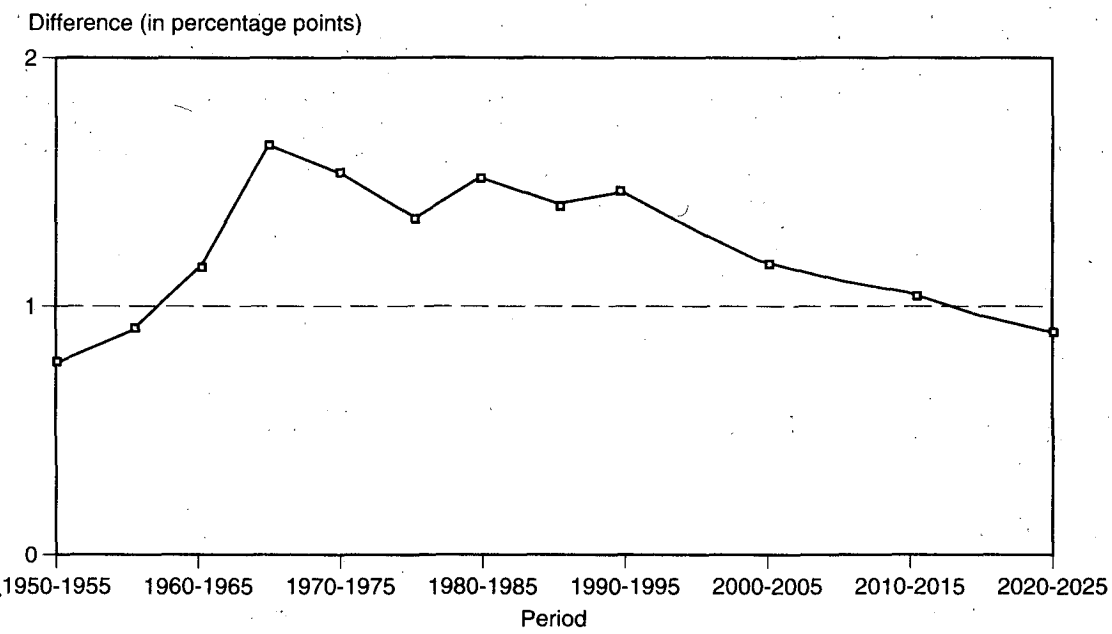
104. As a result of the differential growth rates in the more developed and the less developed regions, between 1950 and 1990, 86 per cent of the absolute growth in the world population occurred in the less developed regions and

Figure 11. Growth rates: more developed and less developed regions and least developed countries, 1950-1955 – 2020-2025



Source: World Population Prospects: The 1992 Revision (United Nations publication, Sales No. E.93.XIII.7).

Figure 12. Growth rate difference between the more developed and the less developed regions, 1950-1955 – 2020-2025



Source: World Population Prospects: The 1992 Revision (United Nations publication, Sales No. E.93.XIII.7).

14 per cent in the more developed regions. Out of the 88 million persons added each year during the period 1985-1990, 81 million were in the less developed regions, with 17 million additional people in China and 16 million in India. Over the period 1990-2025, it is projected that 94 per cent of population growth will occur in the less developed regions. Together, those regions will add 81 million, or 96 per cent, of the average annual increment to the world population in 2020-2025.

105. Differential population growth rates between the more developed and the less developed regions have resulted in an ever-increasing proportion of the world population in less developed regions. Currently, more than three-fourths of the world population live in the less developed

regions, whereas in 1950, about two thirds of the world population were in those regions. By 2025, this proportion may increase to 83 per cent.

106. The 47 least developed countries made up 8 per cent of the world population in 1950. By 1992, with 541 million people, this group of countries made up 10 per cent of the world population. By 2025, the population of the least developed countries is projected to more than double its size in 1992, growing to 1.2 billion persons, or 14 per cent of the world population.

Major areas

107. Population growth rates among the different major areas of the world are diverse. Those major areas in the less developed regions have historically exhibited a greater range of population growth rates than the more developed regions. During the period 1985-1990, Africa was the fastest growing major area, with a growth rate of 3.0 per cent per annum. Europe, growing at 0.4 per cent per annum, had the lowest growth rates. Asia and Latin America grew at about the same rate: 1.9 and 2.0 per cent per annum, respectively, while Northern America and the former USSR[4] had growth rates of 1 per cent or slightly below (table 18).

108. In 1985-1990, all major areas except Africa had population growth rates lower than their respective levels in 1950-1955. The current rate of growth for Africa is higher than that experienced by any other major area during the past 40 years (figure 13). In the context of phases of population growth discussed above, Africa can be seen as being in phase I of growth, wherein crude birth rates have been fairly constant up to the present, but meanwhile crude death rates have declined, resulting in rapid population growth.

109. From 1990-1995 to 2020-2025, growth rates of all the major areas of the world, including Africa, are expected to decline. By 2025, however, the growth rate of Africa is projected to be higher (still more than 2 per cent per annum) than that currently experienced by any other major area. The growth rates of Asia, Latin America and Oceania may converge to about 0.9 per cent per annum and that of Northern America and the former USSR to about 0.5 per cent per annum. Europe will probably continue its long-term declining trend to reach zero growth during 2020-2025.

TABLE 18. GROWTH RATE AND AVERAGE ANNUAL INCREMENT, BY MAJOR AREAS, 1985-1990

Major area	*Growth rate (percentage)*	*Average annual increment (millions)*
Africa	3.0	18
Asia	1.9	55
Europe	0.4	2
Latin America	2.0	8
Northern America	1.0	3
Oceania	1.6	[a]
USSR (former)[b]	0.8	2

Source: World Population Prospects: The 1992 Revision (United Nations publication, Sales No. E.93.XIII.7).

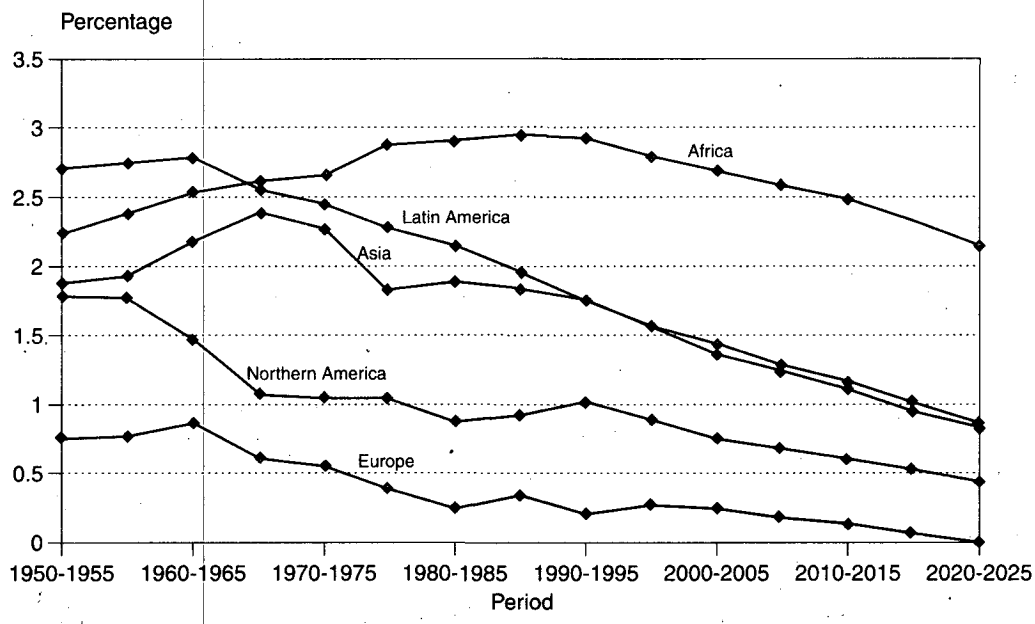
[a]Fewer than 1 million.

[b]Not including Estonia, Latvia and Lithuania, which are included in Europe.

110. The distribution of population increments among the major areas is related to the size of the major areas and its growth rate. During 1985-1990, of the 88 million people added to the world population each year, about 55 million (62 per cent) were added to Asia and about 18 million (20 per cent) to Africa (table 18 and figure 14). Countries in Latin America added about 8 million people. This distribution, however, has also been changing and will continue to change.

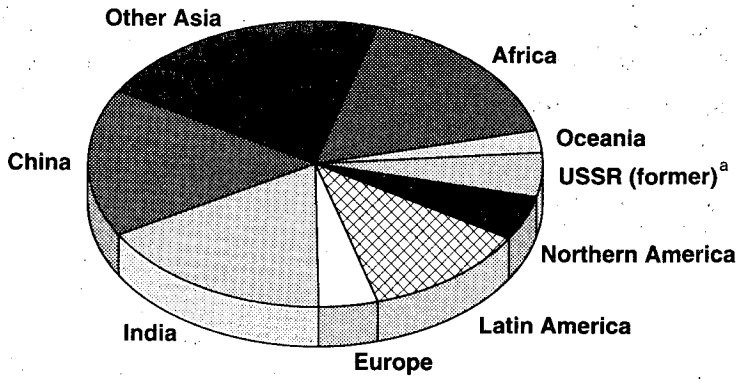
111. During the period 1950-1955, 47 million people, somewhat fewer than half the current annual increase, were added each year to the world population: 58 per cent of that increase occurred in Asia, 11 per cent in Africa; and 10 per cent in Latin America. By 2020-2025, the share of Africa in the average annual increase in world population is projected to rise to 38 per cent and that of Asia to decline to 50 per

Figure 13. Growth rates: Africa, Asia, Europe, Latin America and Northern America, 1950-1955 – 2020-2025



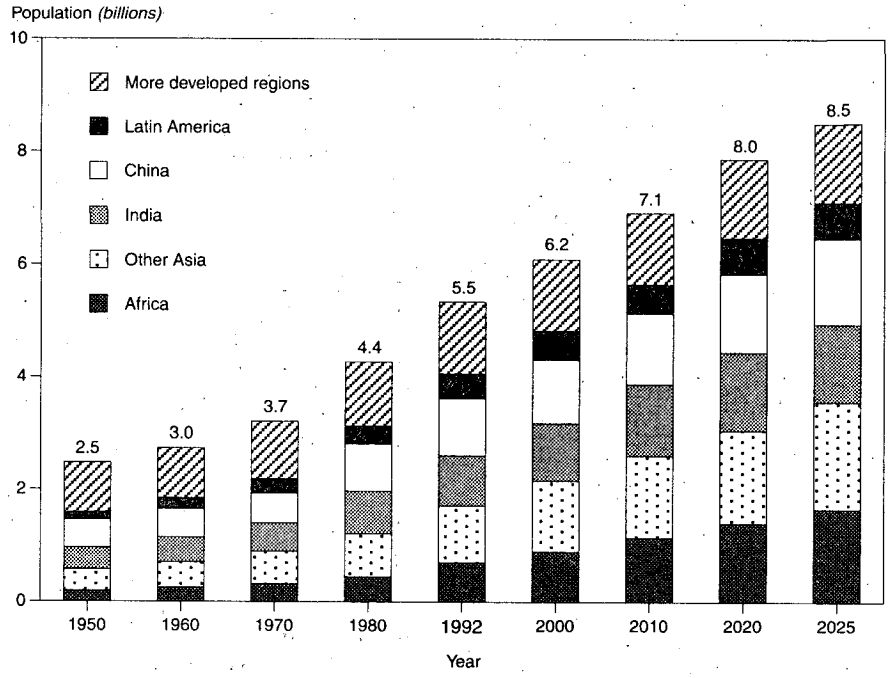
Source: World Population Prospects: The 1992 Revision (United Nations publication, Sales No. E.93.XIII.7).

Figure 14. Annual population increment in major areas of the world, 1985-1990



Source: World Population Prospects: The 1992 Revision (United Nations publication, Sales No. E.93.XIII.7.)
[a] Not including Estonia, Latvia and Lithuania, which are included in Europe.

Figure 15. Distribution of world population, 1950-2025



Source: World Population Prospects: The 1992 Revision (United Nations publication, Sales No. E.93.XIII.7.)

cent. Lower growth rates in Latin America would also result in its share of population increase being reduced to 7 per cent of the total. In all major areas of the world except Africa, the number of persons added to the population would decline from the current level. In Africa, the annual increase of population would be up by 83 per cent, from 18 million per annum in 1985-1990 to 32 million per annum in 2020-2025. On the other hand, by the end of the projection period, the population of Europe is expected to be declining by 8,000 persons per annum.

112. In 1992, the population of Asia accounted for 59 per cent of the world population. Asia has six of the 10 largest countries in the world, including the two largest, China and India. Together, China and India make up 38 per cent of the world population. The next largest major area is quite a bit smaller than Asia in terms of population size: Africa in 1992 had 12 per cent of the world population; and Europe and Latin America made up, respectively, 9 and 8 per cent (figure 15).

113. The distribution of the world population among the major areas has changed from 1950 to 1992. In 1950, Asia had 55 per cent of the world population; Europe, 16 per cent; and Africa, 9 per cent. Between 1950 and 1992, the ranking of the major areas by population size has changed. In 1992, Asia remained the most populous major area in the world but Africa had replaced Europe as the second most populous major area. Declining growth rates in Europe since 1950-1955 contributed to this change. On the other hand, population growth rates in Africa have increased to

reach a maximum during 1990-1995, resulting in an increased share of the world population.

114. These differential growth rates will significantly alter the distribution of the world population in 2025. By then, Africa is expected to double its 1992 population and have 19 per cent of the world population, and Europe is projected to decline even further, to 6 per cent.

115. Differences in growth rate trends can be seen in regions within each of the major areas and are particularly striking within Africa, Asia, Europe and Latin America (see table 19). Each of these regions is discussed separately below.

Africa

116. In Africa, population growth rates began to decline in Northern Africa and in Southern Africa during the period 1970-1975. In 1985-1990, these two regions exhibited growth rates of about 2.5 per cent per annum, which are expected to decrease to about 1.5 per cent by 2025. Such countries as Algeria, Egypt, Tunisia and South Africa have all experienced fertility declines since about 1965. In 1985-1990, Northern and Southern Africa exhibited growth rates of about 2.5 per cent per annum, which are expected to decrease to 1.5 per cent by 2025. The growth rates of the other three regions in Africa (Eastern, Middle and Western Africa) are currently increasing and are expected to continue increasing to levels above 3 per cent per annum by 1990-1995. Population growth rates for Eastern, Middle and Western Africa are expected to decline to only about 2.4 per cent per annum by 2020-2025 (table 19). Growth rates in the latter three regions remain high despite the effects of the acquired immunodeficiency syndrome (AIDS) pandemic[5] because crude birth rates in those regions are still at very high levels (see box 5).

Asia

117. Of the four Asian regions, Western Asia had the highest growth rate during 1985-1990 (2.8 per cent per annum) and Eastern Asia, the lowest (1.4 per cent per annum) (table 19). South-eastern and Southern Asia had growth rates that fell in between (2.0 and 2.2 per cent per annum, respectively). For some countries in Western Asia, such as Bahrain, Kuwait, Qatar and Saudi Arabia, high net migration rates, in addition to relatively high crude birth rates, account for the high growth rate during 1985-1990, but for other countries, such as Oman and the Syrian Arab Republic, crude birth rates remain at high levels and crude death rates are relatively low. However, growth rates for Western Asia are expected to decline after 1990 and to reach 1.8 per cent by 2025.

Europe

118. The four regions in Europe began with diverse growth rates (table 19). Then, Eastern Europe had the highest growth rate of the four regions, 1.4 per cent per annum. Its growth rate subsequently declined rapidly to 0.8 in 1970-1975 and 0.3 in 1985-1990. By 1985-1990, the growth rates in Northern and Southern Europe had also declined to about 0.3 per cent per annum. Northern and Western Europe experienced an increase in growth rates during the 1980s. During 1980-1985, the growth rates for Northern and Western Europe were 0.2 and 0.1 per cent per annum, respectively, but in just five years (from 1980-1985 to 1985-1990), their respective rates increased to 0.3 and 0.5. In some countries in those two regions, the increase in the growth rate was the result of an increase in fertility and an increase in net migration during the 1980s (Denmark, the

BOX 5. DEMOGRAPHIC IMPACT OF AIDS IN AFRICA

The *1992 Revision* of United Nations world population estimates and projections assessed the potential demographic impact of AIDS for countries where human immunodeficiency virus (HIV) seroprevalence was estimated to surpass 1 per cent for the adult population in 1990[a]. All these countries are in Africa. They are: Benin, Burkina Faso, Burundi, Central African Republic, Congo, Côte D'Ivoire, Kenya, Malawi, Mozambique, Rwanda, Uganda, United Republic of Tanzania, Zaire, Zambia and Zimbabwe.

The study shows a devastating toll from AIDS with respect to population loss due to mortality. This epidemic may bring to a halt future improvements in survivorship for many of the 15 countries named above. The already low level of life expectancy at birth for these countries, which measures in aggregate about 50 years in 1985-1990, is projected to remain unchanged through 2000. In the absence of AIDS, life expectancy at birth would have been projected to rise to 56 years by 1995-2000.

Projections show that during the period 1990-1995, the crude death rate for these 15 countries would be 15.7 per annum per 1,000 population. In the absence of AIDS, the crude death rate is projected to be 13.8, a differential of 1.9 deaths per annum. This AIDS-induced death differential is projected to widen; and by the period 1995-2000, AIDS will cause an additional 2.9 deaths per annum per 1,000 population. The effects may be even higher in Uganda and Zambia, where HIV prevalence is highest. By 1995-2000, these two countries are projected to experience, respectively, an additional 6.1 and 7.8 AIDS-induced deaths per annum per 1,000 population. Even more persons than indicated by these rates will actually die from causes related to AIDS, but many would die from other causes anyway. Also, fewer children will be born because of deaths of women of reproductive age.

In aggregate, the populations of these 15 sub-Saharan countries will be about 4 per cent, or more than 12 million persons, smaller in 2005 than they would have been in the absence of AIDS. So far, the AIDS pandemic has only had a small effect on the high population growth rates in these countries, but a noticeable moderating effect is expected in the near future. AIDS has reduced the 1985-1990 population growth rate for these 15 countries from 3.3 to 3.2 per cent per annum. But only 10 years later, by 1995-2000, the population growth rate is projected to be 3.0 per cent per annum rather than 3.2, which would have been expected in the absence of AIDS.

The study shows that of the effects of AIDS on the crude death rate, population growth rates will remain high and positive for each of the 15 countries. Growth rates are likely to remain high mainly because women in these countries continue to have some of the highest rates of child-bearing in the world. During the period 1985-1990, women in these countries bore, on average, nearly 7 children per woman, resulting in a crude birth rate well above 40 per 1,000 population.

[a] *World Population Prospects: The 1992 Revision* (United Nations publications, Sales No. E.93.XIII.7); chapter III focuses on the projected demographic impact of AIDS for these sub-Saharan countries up to 2005.

Netherlands, Norway and Sweden); and in others, net migration rates during 1985-1990 were higher than in 1980-1985 (Austria, France, Germany and Switzerland). For the future, however, growth rates for all regions in Europe are expected to decline steadily.

Latin America

119. The population growth rates of all three regions in Latin America were lower in 1985-1990 than in 1950-1955 (table 19). In 1985-1990, the Caribbean region had the lowest growth rate (1.5 per cent per annum); South America was next (1.9 per cent), and the highest rate was in Central America (2.3 per cent). Low growth rates in the Caribbean reflect both low crude birth rates in relation to Central and South America and the sizeable out-migration from some of the countries in that region. The growth rates in both Central and South America are strongly influenced by the rates in Brazil (the fifth largest country in the world) and Mexico (the eleventh largest country). Both countries experienced large declines in their growth rate from 1960-1965 to 1985-1990, resulting from declines in the fertility level.[6] Declines in growth rates are expected to continue to 2020-2025, and by that time, the growth rates of the three Latin American regions would be about equal at 1 per cent per annum.

Countries

120. In 1990, a total of 223 countries or areas that were Member States or non-Members of the United Nations. Of those 223 countries or areas, 53 had growth rates of 3 per cent per annum or more in 1985-1990 (table 20). Their total population in 1990 was 585 million, or 11 per cent of the

TABLE 19. AVERAGE ANNUAL GROWTH RATES FOR REGIONS IN AFRICA, ASIA, EUROPE AND LATIN AMERICA, 1950-1955 – 2020-2025

Major area and region	*Growth rate (percentage)*			
	1950-1955	*1970-1975*	*1985-1990*	*2020-2025*
Africa	2.2	2.7	3.0	2.2
Eastern Africa	2.3	2.6	3.0	2.4
Middle Africa	1.8	2.5	3.0	2.5
Northern Africa	2.3	2.4	2.6	1.5
Southern Africa	2.3	2.8	2.5	1.4
Western Africa	2.3	2.9	3.2	2.3
Asia	1.9	2.3	1.9	0.9
Eastern Asia	1.8	2.1	1.4	0.4
South-eastern Asia	1.9	2.4	2.0	0.9
Southern Asia	2.0	2.4	2.2	1.2
Western Asia	2.7	2.9	2.8	1.8
Europe	0.8	0.6	0.4	–0.0
Eastern Europe	1.4	0.8	0.3	0.2
Northern Europe	0.4	0.4	0.3	0.0
Southern Europe	0.8	0.8	0.3	–0.1
Western Europe	0.7	0.5	0.5	–0.0
Latin America	2.7	2.5	2.0	0.9
Caribbean	1.8	1.8	1.5	1.0
Central America	2.8	3.1	2.3	1.1
South America	2.8	2.3	1.9	0.8

Source: *World Population Prospects: The 1992 Revision* (United Nations publication, Sales No. E.93.XIII.7.)

TABLE 20. DISTRIBUTION OF COUNTRIES AND AREAS BY GROWTH RATES, 1985-1990

Growth rate (percentage)	*Africa*	*Asia*	*Europe*	*Latin America*	*Northern America*	*Oceania*	*USSR (former)*[a]	*Total*
	A. *Number of countries and areas*							
3.5 or over	5	8	—	2	—	5	—	20
3.0-3.49	19	8	—	3	—	2	1	33
2.5-2.99	18	7	—	7	—	2	1	35
2.0-2.49	8	7	—	6	—	4	1	26
1.5-1.99	2	4	3	7	1	3	1	21
1.0-1.49	2	5	3	6	2	1	3	22
Less than 1.0	2	3	32	15	2	7	5	66
TOTAL	56	42	38	46	5	24	12	223
	B. *Population size (1990)*							
3.5 or over	27	102	—	0	—	0	—	129
3.0-3.49	298	147	—	5	—	0	5	456
2.5-2.99	188	66	—	38	—	0	4	296
2.0-2.49	106	1 188	—	141	—	4	21	1 460
1.5-1.99	9	1 364	3	201	0	17	4	1 598
1.0-1.49	1	119	0	45	27	0	28	221
Less than 1.0	14	132	505	11	250	4	219	1 135
TOTAL	643	3 118	508	441	277	25	281	5 295

Source: *World Population Prospects: The 1992 Revision* (United Nations publication, Sales No. E.93.XIII.7).
[a]Not including Estonia, Latvia and Lithuania, which are included in Europe.

world population. Twenty-four of these countries or areas were in Africa, 16 in Asia (almost all in Western Asia), 7 in Oceania and 5 in Latin America. Such high growth rates in these countries have tremendous implications for future population size. Countries currently growing at a rate of about 3 per cent per annum can expect a doubling of their population in about 23 years.

121. Nearly half of the world population (44 per cent) were living in countries or areas that had growth rates of more than 2 per cent per annum. In 1985-1990, there were 114 such countries or areas. They included nearly all countries in Africa, more than two thirds of those in Asia, half of those in Oceania and slightly more than one third of the countries in Latin America.

122. Sixty-six out of the 223 countries or areas had a growth rate below 1.0 per cent per annum during 1985-1990, with 1.1 billion, or 21 per cent of the world population, living in them. A majority of those countries were in Europe.

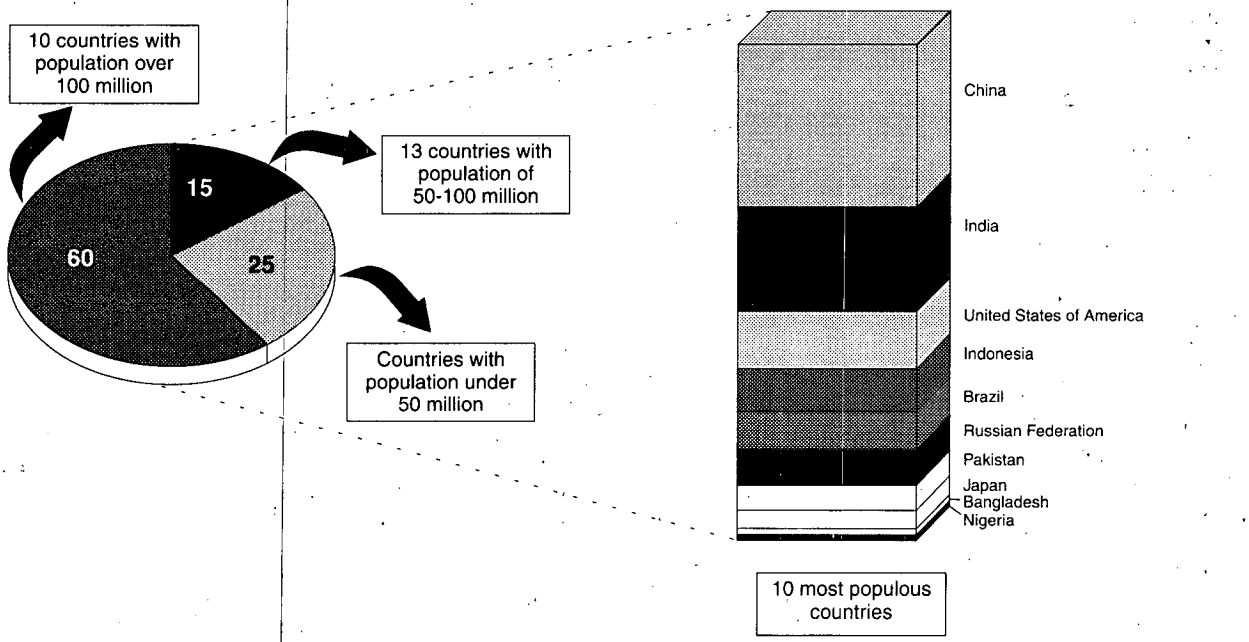
123. In 1992, about 60 per cent of the world population were living in the 10 largest countries in the world. The 10 most populous countries—6 in Asia (China, India, Indonesia, Pakistan, Japan and Bangladesh), 1 in Latin America (Brazil), 1 in Africa (Nigeria), 1 in Northern America (the United States of America) and the Russian Federation in the Commonwealth of Independent States—all had a population exceeding 100 million, totalling 3.3 billion in 1992. The dissolution of the Union of Soviet Socialist Republics altered the ranking of the 10 largest countries in the world. The United States of America, which had been fourth in 1990, after the Soviet Union, is currently the third largest, after China and India. The Russian Federation, the largest republic in the former USSR, is currently the sixth most populous country (figure 16).

124. The combined population of the next 13 largest countries (all with population size between 100 million and 50 million in 1992) totalled 811 million, making up 15 per cent of the world population. In this group are 5 countries in Asia (Viet Nam, the Philippines, the Islamic Republic of Iran, Turkey and Thailand), 4 in Europe (Germany, Italy, United Kingdom and France), 2 in Africa (Egypt and Ethiopia), 1 in Latin America (Mexico) and 1 in the former USSR (Ukraine) (see table 21). On the other hand, there were 79 countries and areas with populations of fewer than 1 million in 1992. Together, they had a total population of 16 million persons, fewer than 1 per cent of the world population.

125. In 2025, it is expected that there will be 32 countries with a population of over 50 million, accounting for more than three fourths of the world population. Of those 32 countries, 16 will have a population of over 100 million, constituting two thirds of the world population. The current high growth rates in a large number of countries will result in a burgeoning population for those countries in 2025, with the result that the ranking of countries according to population size would change somewhat. In 1992, the Islamic Republic of Iran, Ethiopia, Zaire and the United Republic of Tanzania were ranked 15, 22, 26 and 32, respectively. In 1985-1990, they all had growth rates that were above 3 per cent per annum. In 2025, the Islamic Republic of Iran, under the medium-variant projection would be the tenth largest country in the world; Ethiopia, twelfth; Zaire, sixteenth; and the United Republic of Tanzania, twenty-first. During the period 1992-2025, the populations of those four countries are expected to more than double. On the other hand, such countries as Japan, Germany, Italy and the United Kingdom, which had growth rates below 0.5 per cent in 1985-1990, will decline in that ranking. Japan is projected to move from the eighth place in 1992 to the thirteenth in 2025, Germany from the twelfth to the nineteenth, Italy from the seventeenth to the twenty-eighth; and the United Kingdom, from the eighteenth to the twenty-seventh. The population size of those four countries is expected to grow very little from 1992 to 2025 (an increase of from 3 million to 5 million and a decline of 2 million for Italy).

Figure 16. World population distribution, 1992

(Percentage)



Source: World Population Prospects: The 1992 Revision (United Nations publication, Sales No. E.93.XIII.7).

TABLE 21. THE 23 MOST POPULOUS COUNTRIES RANKED ACCORDING TO POPULATION SIZE, 1992 AND 2025

1992				2025		
Rank	*Country*	*Population*	*Growth rate*	*Rank*	*Country*	*Population*
1.	China	1 188	1.5	1.	China	1 540
2.	India	880	2.0	2.	India	1 394
3.	United States of America	255	0.9	3.	United States of America	322
4.	Indonesia	191	1.9	4.	Nigeria	286
5.	Brazil	154	1.9	5.	Indonesia	283
6.	Russian Federation	149	0.2	6.	Pakistan	260
7.	Pakistan	125	3.2	7.	Bangladesh	223
8.	Japan	124	0.4	8.	Brazil	220
9.	Bangladesh	119	2.4	9.	Russian Federation[a]	159
10.	Nigeria	116	3.3	10.	Iran (Islamic Republic of)	145
11.	Mexico	88	2.2	11.	Mexico	137
12.	Germany	80	0.5	12.	Ethiopia	131
13.	Viet Nam	69	2.2	13.	Japan	127
14.	Philippines	65	2.4	14.	Viet Nam	117
15.	Iran (Islamic Republic of)	62	3.5	15.	Philippines	105
16.	Turkey	58	2.1	16.	Zaire	105
17.	Italy	58	0.2	17.	Egypt	94
18.	United Kingdom	58	0.3	18.	Turkey	93
19.	France	57	0.6	19.	Germany	84
20.	Thailand	56	1.3	20.	Myanmar	76
21.	Egypt	55	2.4	21.	United Republic of Tanzania	74
22.	Ethiopia	53	2.9	22.	South Africa	73
23.	Ukraine	52	0.2	23.	Thailand	72

Source: *World Population Prospects: The 1992 Revision* (United Nations publication, Sales No. E.93.XIII.7).
[a]Projected assuming continuation of current growth rate.

B. POLICIES ON POPULATION GROWTH

126. The number of countries that are concerned by high rates of population growth and that are adopting policies to address it has increased; in particular, a growing number of developing countries are expressing concern over the consequences of population increases at international forums. This was the case, for instance, at the Non-aligned Movement Summit at Jakarta in September 1992, and at the first ministerial meeting of the Group of 77 during the forty-seventh session of the General Assembly in October 1992.

127. Many more countries are now willing to confront demographic issues. Some countries address only one component of population growth in their policies, e.g., fertility, mortality or migration, while others have adopted more inclusive strategies which include taking into consideration education, employment, health, status of women, access to family planning services, infrastructure and sustainable development.

128. Different considerations concerning the role of population growth in development, the environment and the quality of life influence the views of Governments with regard to population growth. Environment is an issue that deserves particular attention. More Governments have been giving attention to this topic in their population policies, particularly since the United Nations Conference on Environment and Development held at Rio de Janeiro, Brazil, in June 1992, and Agenda 21 (see box 6), which focused on the implication of population growth for ecological equilibrium.

129. As of 1993, only a small number of countries, 21 out of 190 (11 per cent), considered their population growth rates to be too low. The remaining countries were nearly equally divided between those which considered the rate to be satisfactory (86 countries, or 45 per cent) and those which considered it too high (83 countries, or 44 per cent). These figures indicate a gradually evolving trend over the past two decades, as is shown in table 22. Although the percentage of countries that consider their rates of population growth to be too low has declined, the proportion of countries that consider their rates of population growth to be too high has steadily increased.

TABLE 22. GOVERNMENTS' VIEW ON THE POPULATION GROWTH RATE, 1974-1993
(Percentage)

Year	*Too low*	*Satisfactory*	*Too high*	*Total*	*Number of countries*
1974	25.0	47.4	27.6	100.0	156
1983	18.5	45.2	36.3	100.0	168
1986	16.5	45.3	38.2	100.0	170
1989	14.7	45.3	40.0	100.0	170
1991	13.8	43.7	42.5	100.0	174
1993	11.0	45.3	43.7	100.0	190

130. Nearly 90 per cent of the developed countries considered their rates of population growth to be satisfactory and 13 per cent considered their rates to be too low, while only one country, the former Yugoslav Republic of Macedonia, considered its rate to be too high (table 23). The majority (61 per cent) of the developing countries, most of which are in Africa and Oceania, considered their rates of population growth to be too high.

131. Particularly in Africa and Asia, major areas that have some of the highest population growth rates in the world, Governments' perceptions of the acceptability of their rates of population growth do not always coincide with the actual population growth rate in their country (table 24 and figure 17). For example, six developing countries (Gabon, Iraq, the Lao People's Democratic Republic, Oman, Qatar and Saudi Arabia), considered their rate of population growth to be too low and desired to increase it, despite the fact that their populations are growing by more than 3 per cent annually. The majority of countries that considered their population growth rate to be too low, 10 out of 21, are located in Asia; six of them are in Western Asia. The majority of countries that considered their rate of population growth to be too high, 38 out of 83, are located in Africa, where only one

TABLE 23. GOVERNMENTS' OVERALL APPRAISAL OF RATES OF POPULATION GROWTH: NUMBER OF COUNTRIES AND PERCENTAGE OF TOTAL, BY LEVEL OF DEVELOPMENT AND MAJOR AREA, 1993

	Appraisal				Appraisal			
	Rates too low (1)	Rates satisfactory (2)	Rates too high (3)	Total (4)	Rates too low (5)	Rates satisfactory (6)	Rates too high (7)	Total (8)
	(Number of countries)				(Percentage)			
A. *Level of development*								
World	21	86	83	190	11	45	44	100
More developed regions	7	48	1	56	13	86	2	100
Less developed regions	14	38	82	134	10	28	61	100
Least developed countries	3	12	32	47	6	26	68	100
B. *Major area*								
Africa	1	14	38	53	2	26	72	100
Asia	10	9	19	38	26	24	50	100
Europe	5	33	1	39	13	85	3	100
Latin America	2	14	17	33	6	42	52	100
Northern America	0	2	0	2	0	100	0	100
Oceania	1	4	8	13	8	31	62	100
USSR (former)[b]	2	10	0	12	17	83	0	100

Source: The Population Policy Data Bank maintained by the Population Division of Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat.

[a]Including the least developed countries.

[b]Not including Estonia, Latvia and Lithuania, which are included in Europe.

country, Gabon, considered its rate of population growth to be too low.

132. The 83 countries that considered their rate of population growth to be too high represent almost 70 per cent of the world population, while the 86 countries that considered their population growth to be satisfactory represent fewer than 30 per cent of the world population; the remaining 21 countries that considered population growth to be too low constitute fewer than 5 per cent of the world total (table 25). Six of the 10 most populous countries in the world (constituting 48 per cent of the world population) are among the 83 countries that considered their rate of population growth to be too high, and their Governments all implement policies to lower the rate. The other four most populous countries, the United States of America, Brazil,

TABLE 24. COMPARISON OF POPULATION GROWTH RATE, 1985-1990, AND GOVERNMENTS' PERCEPTION OF THE RATE, 1993
(Number of countries)

Annual growth rate (percentage)	Perception of the rate of population growth			
	Too low	Satisfactory	Too high	Total
Less than 1	8	42	9	59
1-1.99	4	16	12	32
2-2.99	3	23	34	60
3 or over	6	5	28	39
TOTAL	21	86	83	190

Sources: World Population Prospects: The 1992 Revision (United Nations publication, Sales No. E.93.XIII.7); and the Population Policy Data Bank maintained by the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat.

BOX 6. POPULATION GROWTH AND THE ENVIRONMENT

Sustainable development may be defined as meeting people's current needs while preserving nature's productive capacity for the future. Principle 8 of the Rio Declaration on Environment and Development affirms that "to achieve sustainable development and a higher quality of life for all people, States should reduce and eliminate unsustainable patterns of production and consumption and promote appropriate demographic policies".[a] Chapter 5 of Agenda 21, the plan of action elaborated by the United Nations Conference on Environment and Development held at Rio de Janeiro, Brazil, in June 1992, develops the issue of demographic dynamics and sustainability. It asserts that "demographic trends and factors and sustainable development have a synergistic relationship" and that "the growth of world population and production combined with unsustainable consumption patterns places increasingly severe stress on the life-supporting capacities of our planet".[b] According to this document, "there is a need to develop strategies to mitigate both the adverse impact of human activities on the environment and the adverse impact of environmental change on human populations". Among the strategies suggested, it is emphasized that "policies should be designed to address the consequences of population growth built into population momentum, while at the same time incorporating measures to bring about demographic transition".

Although the correlation between population growth and the environment has been noted in these documents, it remains a very complex issue which must be studied in specific geopolitical situations before general assumptions may be drawn. The literature is rich in expert discussions of population growth and the environment, a subject which remains controversial. It is generally acknowledged, however, that rapid growth gives less time for technologies to adjust to the environment and increases the likelihood that environmentally damaging productive practices are used. In addition, Governments' responses in terms of policies are easily overwhelmed when the pace of growth is too high compared with the material possibilities of achieving sustainable development.

[a]*Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992*, vol. I, *Resolutions Adopted by the Conference* (United Nations publication, Sales No. E.93.I.8), annex I.

[b]Ibid., annex II.

Figure 17. Annual population growth rate, 1985-1990, and Governments' perception of the rate, 1993

Sources: World Population Prospects: The 1992 Revision (United Nations publication, Sales No. E.93.XIII.7); and the Population Policy Data Bank maintained by the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat.

TABLE 25. GOVERNMENTS' OVERALL APPRAISAL OF RATES OF POPULATION GROWTH AND INTERVENTION TO INFLUENCE RATES: NUMBER OF COUNTRIES AND POPULATION SIZE IN ABSOLUTE NUMBERS AND PERCENTAGE, BY LEVEL OF DEVELOPMENT AND MAJOR AREA, 1993

	Rates too low		*Rates satisfactory*				*Rates too high*		
	No direct intervention reported (1)	*Intervention to raise rates (2)*	*Intervention to raise rates (3)*	*Intervention to maintain rates (4)*	*No direct intervention reported (5)*	*Intervention to lower rates (6)*	*Intervention to lower rates (7)*	*No direct intervention reported (8)*	*Total (9)*
World									
Number of countries	3	18	4	25	56	1	71	12	190
Population (thousands)	37 391	138 375	97 174	266 799	1 233 307	18 792	3 523 711	148 809	5 464 358
Population (percentage)	0.7	2.5	1.8	4.9	22.6	0.3	64.5	2.7	100
Developed countries									
Number of countries	1	6	3	19	26	0	1	0	56
Population (thousands)	2 679	54 988	84 264	258 217	821 948	0	2 143	0	1 224 239
Population (percentage)	0.2	4.5	6.9	21.1	67.1	0.0	0.2	0.0	100
Developing countries[a]									
Number of countries	2	12	1	6	30	1	70	12	134
Population (thousands)	34 712	83 387	12 910	8 582	411 359	18 792	3 521 568	148 809	4 240 119
Population (percentage)	0.8	2.0	0.3	0.2	9.7	0.4	83.1	3.5	100
Least developed countries									
Number of countries	1	2	0	1	11	0	24	8	47
Population (thousands)	1 612	13 243	0	369	134 071	0	249 795	138 549	537 639
Population (percentage)	0.3	2.5	0.0	0.1	24.9	0.0	46.5	25.8	100
Africa									
Number of countries	0	1	1	2	11	0	29	9	53
Population (thousands)	0	1 237	12 910	1 467	105 009	0	436 154	124 021	680 798
Population (percentage)	0.0	0.2	1.9	0.2	15.4	0.0	64.1	18.2	100
Asia									
Number of countries	1	9	0	3	5	1	17	2	38
Population (thousands)	1 612	79 010	0	7 049	171 800	18 792	2 926 238	20 732	3 225 233
Population (percentage)	0.0	2.4	0.0	0.2	5.3	0.6	90.7	0.6	100
Europe									
Number of countries	1	4	3	10	20	0	1	0	39
Population (thousands)	2 679	29 674	84 264	51 161	341 722	0	2 143	0	511 643
Population (percentage)	0.5	5.8	16.5	10.0	66.8	0.0	0.4	0.0	100
Latin America									
Number of countries	1	1	0	1	13	0	17	0	33
Population (thousands)	33 100	3 130	0	66	258 145	0	158 334	0	452 775
Population (percentage)	7.3	0.7	0.0	0.0	57.0	0.0	35.0	0.0	100

TABLE 25 *(continued)*

	Rates too low		*Rates satisfactory*				*Rates too high*		
	No direct intervention reported (1)	*Intervention to raise rates (2)*	*Intervention to raise rates (3)*	*Intervention to maintain rates (4)*	*No direct intervention reported (5)*	*Intervention to lower rates (6)*	*Intervention to lower rates (7)*	*No direct intervention reported (8)*	*Total (9)*
Northern America									
Number of countries	0	0	0	0	2	0	0	0	2
Population (thousands)	0	0	0	0	282 526	0	0	0	282 526
Population (percentage)	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100
Oceania									
Number of countries	0	1	0	0	4	0	7	1	13
Population (thousands)	0	10	0	0	21 947	0	842	4 056	26 855
Population (percentage)	0.0	0.0	0.0	0.0	81.7	0.0	3.1	15.1	100
USSR (former)[b]									
Number of countries	0	2	0	9	1	0	0	0	12
Population (thousands)	0	25 314	0	207 056	52 158	0	0	0	284 528
Population (percentage)	0.0	8.9	0.0	72.8	18.3	0.0	0.0	0.0	100

Source: The Population Policy Data Bank maintained by the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat.

[a]Including the least developed countries.

[b]Not including Estonia, Latvia and Lithuania, which are included in Europe.

the Russian Federation and Japan, which account for 11 per cent of the world population, considered their rate of population growth to be satisfactory.

1. *Africa*

133. Out of 53 African countries, 38 (72 per cent) considered their rate of population growth to be too high (table 25 and annex table 6). Nevertheless, not all of the countries have adopted policies to lower population growth. Many of those countries which have acknowledged the negative impact of rapid population growth on their development potential are in the process of either formulating population policies or improving them.

134. Malawi, for instance, had the highest population growth rate in the world during the period 1985-1990, an average annual rate of 5.3 per cent. The Government has recognized the adverse effects of rapid population growth on social and economic development and has announced the drafting of a population policy. According to the response of Malawi to the United Nations Seventh Population Inquiry among Governments, the main elements of the population policy will be to strengthen the child-spacing programme with the ultimate aim of reducing the rate of population growth. In addition, policies are being implemented to bring about a decline in fertility through such measures as increasing girls' schooling and reducing drop-out rates, expanding adult literacy programmes, reducing infant and child mortality and increasing women's employment opportunities with a view towards attaining greater economic independence.

135. Nigeria, which ranks tenth among the most populous countries in the world and, with an estimated population of 115.7 million inhabitants in 1992, is the largest country in Africa, formulated a population policy only recently. In 1993, the Government considered its annual population growth rate of 3.3 per cent to be too high. The National Policy on Population was launched in April 1989. Its target is to reduce the population growth rate to 2 per cent per annum by the year 2000, mainly by reducing the number of marriages to women under age 18, increasing child-spacing and reducing fertility. The provision of family planning services is a major component of the Government's population policy. The National Population Commission is attempting to obtain reliable statistics on population trends. The preliminary results of the 1991 census, which differ considerably from national projections, have raised questions and are scheduled to be checked against field investigations conducted in 1992.

136. Rwanda has one of the highest fertility rates in sub-Saharan Africa, estimated at 8.5 births per woman for the period 1985-1990, and an annual population growth rate of 3.3 per cent for the same period. In spite of the Government's previous efforts to decrease population growth by lowering maternal and infant mortality and increasing awareness of family planning, population growth has remained high. In its response to the United Nations Seventh Population Inquiry, the Government reported that it was greatly concerned by the demographic problems faced by Rwanda and considered them to be a priority. A population policy was officially approved in June 1990, complemented by a plan of action. The policy outlined actions intended to having a direct impact on population growth, such as sensitizing the public to demographic issues and promoting contraception in all health-care facilities, as well as actions that would have an indirect influence on demographic behaviour (e.g., improving food production, education and the health status of the population, achieving better land management and environmental protection, developing employment opportunities, improving the status of women and alleviating poverty). The policy includes quantitative targets, such as reducing population growth from 3.6 per cent in 1990 to 2 per cent by the year 2000 and containing the population size at 9.5 million by the year 2000. Targets were also adopted for contraceptive prevalence, fertility rate and mortality rate. In light of the ongoing civil conflict in Rwanda, its population policy is unlikely to be implemented.

137. The number of Governments in Africa that consider rapid population growth to be a negative feature for the development of their country has been steadily increasing. An important example is the Congo, which had until recently considered its rate of population growth, estimated at 3.0 per cent during 1985-1990, to be too low, mainly because of the geographical size of the country in relation to its population size. In its response to the United Nations Seventh Population Inquiry, the Government of the Congo

reported that its decision to attempt to reduce the rate of population growth was based on the fact that rapid population growth meant the allocation of a high proportion of the national product to supporting the increasingly youthful population rather than for promoting economic development. The main instrument of the Government's new policy would be a family planning programme stressing maternal and child health (MCH).

138. Seven other African countries—Burkina Faso, Guinea, Madagascar, Mali, Mozambique, Namibia and Togo—recently changed their views on population growth and currently consider population growth to be too high; they had previously considered it to be satisfactory. Guinea adopted a population policy in May 1992, the general objective of which is to ensure a balance between demographic growth and available resources. The policy is directed to, among other things, integrating demographic variables into socio-economic development programmes, reducing birth rates, lowering mortality, regulating migration and urbanization, improving food production, improving education, promoting job training and employment, protecting the environment, integrating women and youth into the development process, improving knowledge of population problems and ensuring greater sensitization to population problems and policies. In its response to the United Nations Seventh Population Inquiry, the Government reported a target of reducing the population growth rate from 2.8 per cent per annum in 1990 to 2.0 by 2010.

139. Madagascar also recently adopted explicit policies to lower its population growth rate, which is currently 3.2 per cent per annum. The Government of Madagascar was resolutely against any intervention to modify population growth until the 1980s, as it considered the national resources to be unexploited. Eventually, economic difficulties led to a change in the Government's attitude and to a process that ended in the formulation of a national population policy. The National Population Law was adopted by the Malagasy Parliament in January 1991, after research and analytical studies were conducted with regard to the linkages between population, development and the environment. The major aim of the policy is to reduce fertility, mainly through improving access to family planning information and services by means of a national family planning programme to be implemented by the Ministry of Health.

140. Mali approved its first national population policy in May 1991 and established the Bureau national de coordination des programmes de population to oversee its administration. The overall objective is to regulate demographic growth in order to enhance the quality of life of the population and to accelerate social and economic development. The annual rate of population growth, which was estimated at 3.1 per cent during 1985-1990, is considered to be a hindrance to the economic and social development of Mali in the short and long term. The population policy proposes to reduce the rate of population growth by promoting family planning and promoting economic and social development; additional objectives are reducing morbidity and mortality, integrating women into the development process and increasing awareness of socio-demographic issues.

141. Since independence was attained, the Government of Namibia has embarked on a programme of national reconstruction and development. Currently, Namibia faces an increasing rate of population growth (which had been limited prior to independence by spousal separation due to the migrant labour system and by poor health conditions). The Government currently seeks to decrease the rate of population growth and envisions formulating a population policy. However, given the strong negative feelings associated with the issue of population control, the Government has refrained from identifying population targets and considers that a population planning unit should carry out studies and research in order to define the most suitable approach to demographic problems in Namibia. The Transitional National Development Plan adopted in December 1992 is directed to providing a framework for intersectoral planning and a basis for creating greater awareness of the relation between population and development; it includes among its objectives the establishment of modalities for the integration of population factors into development planning, and of family planning within health services.

142. The Government of Togo has been enacting some form of population planning since the 1980s, mainly centred on family planning programmes. In 1989, the National Family Welfare Programme (Programme national du bien-être familial) received the United Nations Population Award in recognition of its achievements in the family planning field. However, surveys reveal a widespread lack of knowledge of family planning methods among couples in Togo.

143. Fifteen African countries considered their rates of population growth to be neither too high nor too low. Several of the countries that considered growth rates to be satisfactory, such as Côte d'Ivoire, the Libyan Arab Jamahiriya and Zaire, have population growth rates exceeding 3 per cent per annum. The position of those Governments is dictated in many cases by the existence of largely unexploited resources which are thought to require manpower to permit their development. This, for example, is the position of Gabon and the Libyan Arab Jamahiriya. The Government of the Libyan Arab Jamahiriya considers the country to be underpopulated. Although it provides child allowances, subsidized housing and social security, and supports MCH programmes, family planning does not receive direct governmental support.

144. All of the countries that considered their rates of population growth to be neither too high nor too low have adopted some type of social policies to alleviate the burden of their growing populations; and, except for the Libyan Arab Jamahiriya, they have some type of family planning services. Many of these countries, however, while being aware of the importance of population growth and of its influence on development, have not yet taken explicit steps and stated an official point of view on the population question because they are in a transitional period and in the process of developing the essential tools to deal with population issues.

145. Sao Tome and Principe, for instance, envisages future action in the field of population; in its response to the United Nations Seventh Population Inquiry, the Government acknowledged that the lack of a population policy and of quantitative targets constituted an important obstacle to development. Although it was in the process of preparing for the integration of demographic variables into future development planning, it was focusing on the reduction of mortality.

146. In its response to the United Nations Seventh Population Inquiry, Djibouti affirmed its awareness of the pressure that population growth creates in such sectors as education, health and employment and declared that it was imperative to balance available resources and population needs. The Government reported, however, that the lack of availability of demographic data was a major obstacle to policy formulation. Therefore, the aim of the Government

was to improve its knowledge of the population structure, composition and dynamics of Djibouti. In its response to the United Nations Seventh Population Inquiry, the Government of Guinea-Bissau recognized the importance of population issues and noted the importance of political will in establishing an effective population policy. Guinea-Bissau has established a population unit.

147. Other countries, such as Mauritius, have a long tradition of population policy. Mauritius was one of the first countries in Africa to formulate a population policy in the early 1970s. The Government's intensive family planning programme, based on major educational campaigns and supported by two private associations, has contributed to a dramatic fertility reduction over the past three decades. Although the Government considers that the programme was successful in bringing the total fertility rate below replacement level, it is still concerned by the fact that women under age 20 and those over age 35 still have high fertility. One of the Government's major objectives is to reduce the fertility rate of those two groups of women in order to maintain overall total fertility at replacement level. As of 1993, the policy of the Government of Mauritius on population issues was based mainly on the Family Planning Programme, which was being continuously improved. Recent measures include establishment of in-service training for family planning personnel; intensification of education programmes, especially for adolescents; expansion of home visits and continuous evaluation of the family planning programme through analysis and research. The Government also intends to fine-tune information, educational and communication (IEC) activities to particular target groups. The Government announced its intention to shift the emphasis of its population policy from achieving a fertility decline to the broader goal of improving the quality of life of the population by improving health, education and access to employment, and by improving the status of women and family welfare.

2. *Asia*

148. A large proportion of the Asian countries (53 per cent) considered their rate of population growth to be too high; in terms of population size, the 19 countries that considered their rate of population growth to be too high represented nearly 90 per cent of the total Asian population and 54 per cent of the world population (table 25); among them are five of the 10 most populous countries in the world (China, India, Indonesia, Pakistan and Bangladesh). Indeed, Asia is responsible for the major share of the annual increase in the world population. All of the most populous developing countries in Asia have implemented policies directed to reducing the rate of population growth and have brought about significant declines in total fertility.

149. The remaining 18 countries are almost equally divided; 10 countries considered their population growth to be too low, whereas 9 countries viewed it as satisfactory (table 23). Of the 18 countries that considered their growth rate to be either too low or satisfactory, several have growth rates higher than 3 per cent; however, the nine countries that considered their population growth to be satisfactory represent 7.2 per cent of the total population of the developing countries, whereas the 10 countries that considered it to be too low represent only 1.9 per cent of the world population.

150. The efforts of China to reduce population growth have been considerable; the Government's policy, based mainly on an extensive family planning programme, has been directed to keeping population growth in pace with economic and social development and to improving the quality of life for the population of China. The results have been significant; officials of the Government of China estimated TFR to be 1.9 as of 1992, whereas the annual rate of population growth was 1.7 per cent. The results of the 1990 census indicated that more than 200 million births had been averted since the end of 1970, with significant economic benefits both for individuals and for the country as a whole. In spite of the dramatic results of this population policy, population still represents the most urgent problem for China; the rate of growth is still considered to be too high. More than 20 million newborns are added each year, representing a significant burden in terms of providing socio-economic infrastructure and employment. The Government is also concerned about the problem of food supply. Grain production has increased at a slower pace than population, resulting in a decrease in the amount available per capita (box 7). What is more, the current level of fertility has not been stabilized and could increase again if programme efforts are weakened; considering the absolute population size, even a slight increase in the birth rate in China would translate into a significant population increase. As a result, the Government has decided to maintain the family planning programme and to strengthen and improve its implementation, especially in rural areas, while simultaneously focusing on accelerating economic development and improving social services.

151. The Republic of Korea has also achieved impressive results in regard to population growth; in its response to the United Nations Seventh Population Inquiry, the Government reported that as a result of rapid economic growth, modernization and the family planning programme, total fertility had declined from 6 births per woman in 1960 to 1.6 in 1988, whereas the annual rate of population growth had declined from 1.6 per cent in 1980 to 0.9 in 1990. The Government explained that, given current levels of fertility, the country was expected to achieve zero population growth by the year 2021. Therefore, the Government sought to shift the major focus of its population policy from measures designed to reduce fertility to those designed to improve the quality and distribution of population. The population policy included in the Seventh Five-Year Plan has an inclusive approach: emphasis has been placed on social welfare services, including services for the elderly. Among the priorities identified in the new national population policy, reproduction and population growth rank fifth, following morbidity and mortality, population distribution, population structure, family formation and status of women.

152. Other countries have achieved less significant results, although their programmes remain quite successful. Viet Nam, since its first Population and Family Planning Programme was adopted in 1963, has considered population to be a key issue in socio-economic development and has adopted a number of measures which resulted in the decline of the population growth rate from 2.5 per cent for the period 1961-1970 to 2 per cent for 1981-1990, and in the decline of TFR from 5.6 births per woman in 1975-1980 to 4.0 in 1988. The results of the 1989 census showed that the annual rate of population growth was still 2.1 per cent, above the target of 1.7 per cent that had been established for 1990. Concerned by the slow progress in achieving demographic targets, the Government formulated a revised population strategy. The Strategy for Information-Education-Communication of Population and Family Planning: 1992-2000, which was adopted in 1992, is directed to achieving TFR of 2.8-3.0 by the year 2000, reducing the population growth rate to below 1.8 per cent and raising contraceptive prevalence to 55 per

BOX 7. POPULATION AND ENVIRONMENT: THE CASE OF CHINA

China, with a population of nearly 1.2 billion in 1992, experienced an average annual population growth of 1.5 per cent for the period 1985-1990, which in absolute numbers meant an increase of more than 15 million persons per annum. Among the various consequences of population growth, the largest population in the world is facing serious shortages of natural resources, mainly agricultural land and water. Indeed, its population represents 22 per cent of the world population but occupies only 7 per cent of the world's arable land. Although per capita water consumption in China is low, about 100 litres a day, the supply cannot keep pace with the growing demand. According to the Ministry of Construction, although the urban water- supply capacity has grown by 7 per cent per annum, the annual demand has increased by 10 per cent. In the countryside, land was reclaimed from lakes for agricultural purposes, and between the 1950s and the 1980s, the total lake area decreased by 11 per cent. Excessive exploitation of groundwater has resulted in land subsidence and falling groundwater levels. Water pollution is an additional cause of decreasing availability of water.

Since the 1980s, the Government has adopted a number of regulations for pollution prevention and control, and for water and soil conservation. The Government is taking several steps to protect the environment, while promoting a strict and vigorous family planning programme. The Government is convinced that its past efforts to reduce population growth have brought about a higher level of living for its population, reduced public expenditure and increased the share of the national product available to each person. Although fertility has recently reached replacement level, given the enormous size of the population of China, the absolute number of births is very high and the Government is convinced that its efforts should not be relaxed. The only way to achieve sustainable development, a harmonious relation between population growth, economic development, improved quality of life and protection of the environment is effectively to regulate the rapid increase of the population while multiplying efforts for economic development.

Sources: "Family planning and the rights of existence and development of the Chinese people", *China Population Today* (Beijing), October 1992, pp. 12-14; and Xiong Lei, "China's war on waste and pollution", *People and the Planet*, London, vol. 2, No. 2 (1993).

cent. The general objective of the strategy is to promote the acceptance of a small and healthy family as a social norm through a detailed set of actions.

153. Pakistan, with a population of 118 million, is seventh among the most populous countries in the world. Its average annual population growth rate of 3.2 per cent for the period 1985-1990 is one of the highest in Asia, excluding Western Asia. The Government established the Ministry of Population Welfare in 1990 and undertook a number of measures to reduce its rate of population growth. However, Pakistan has encountered serious difficulties in achieving its target of replacement-level fertility by the year 2000, in part as a result of the massive influx of refugees from Afghanistan during the late 1980s. In its response to the United Nations Seventh Population Inquiry, the Government acknowledged that the high rate of population growth had to a large extent cancelled the gains achieved in social and economic development. The Government emphasized that it had accorded high priority to the population welfare programme and had made it part of the national Social Action Plan. In order to overcome coordination difficulties, inter-ministerial committees for population have been established at the federal and provincial levels; moreover, the allocation of financial resources for the population sector has been increased. The Government of Pakistan also reported that the accelerated population welfare programme and the Eighth Five-year Plan were directed to expanding family planning services to cover 80 per cent of the population, as well as launching a strong campaign in the communications media to create demand for contraception. The Government reiterated its determination to reduce the average annual rate of population growth to 2.5 per cent by the year 2000 and to reach a target population size of 139 million by 1997-1998.

154. With an estimated population of 119.3 million inhabitants in 1992, Bangladesh ranks sixth among the most populous countries of the world. In its response to the United Nations Seventh Population Inquiry, Bangladesh reported that population was the primary problem in the country and that it attached highest priority to its solution. The Government also committed itself to reducing the rate of population growth from 2.1 per cent per annum in 1990 to 1.8 by 1995, with the aim of reaching a stable population by the year 2005; the Government's target population size is 126.1 million by 1995 and 137.4 million by the year 2000. The Government reported that in order to give high priority to population issues, a multisectoral approach had been adopted, in which various sectors, including agriculture, education, information, cooperatives, women's affairs and social welfare, were involved in population activities. In the Fourth Five-Year Plan, 1990-1995, the efforts of the Family Welfare Sector are directed to creating the greatest degree of public awareness of the seriousness of the population issue in Bangladesh within the shortest possible time.

155. Sri Lanka has been addressing population issues since the 1970s and has achieved significant improvements in various socio-demographic and health indicators. In 1991, the Government issued a population policy statement in which it stated that Sri Lanka was among the most densely populated countries of the world and that the continued increase in population growth would result in severe stresses on natural resources and the environment. For the first time, the population policy statement in Sri Lanka identified a population target of reaching replacement-level fertility by the year 2000 at the latest, which would result in a stable population by the middle of the next century.

156. Nepal has decided to give new emphasis to its population policy. Whereas Nepal has supported family planning for over 25 years, established a National Commission on Population in 1982 and adopted a National Population Strategy in 1983, many of the measures in regard to family planning were never implemented. Concerned that the resources of Nepal were not sufficient to provide adequate health care, education and employment to its population if it continued to grow at a rapid rate, and that population pressure was causing widespread environmental degradation, the new multisectoral Population Policy and Programme was announced in 1992, and the National Population Committee Nepal was established as an interministerial body. The Population Division of the National Planning Commission will serve as the secretariat of the Committee and will be responsible for the formulation of population policy options, and for coordinating, monitoring and evaluating population activities. The National Population Policy

included in the Eighth Development Plan, 1992/93-1996/97, is directed to establishing an appropriate balance between population growth, economic and social development and the environment. The long-term objective of the policy is to promote the small family norm and to develop interest among couples in limiting family size to two children. The first target established by the programme is to reduce TFR from 5.8 to 4.5 births per woman by the end of the Plan, to be achieved mainly through improvements in the standard of living, education and family planning programmes. In its response to the United Nations Seventh Population Inquiry, the Government identified the target of achieving a rate of population growth below 2 per cent by the year 2000 and of containing the population size at 30 million by the year 2011.

157. The Government of Maldives has recently changed its view with regard to population growth and reported its concern about the high population growth rate. The population of Maldives is one of the most rapidly growing in the Southern Asian region. According to official estimates, the population growth rate accelerated in the 1980s and averaged 3.4 per cent per annum during the period 1985-1990, mainly due to high fertility rates (TFR was estimated at 6.4 births per woman in 1990). In the country report presented at the Fourth Asian and Pacific Population Conference in August 1992, the Government noted that even if total fertility declined substantially, the population of Maldives would continue to increase due to demographic inertia. It also emphasized that, over the past decade, rapid socio-economic development combined with rapidly increasing population growth had accelerated the process of environmental degradation. Therefore, the Government's policy encouraged family planning and child-spacing, and also was directed to protecting the environment (box 8). The country has adopted a policy of child-spacing since 1984 and all methods of contraceptive services are made available through government distribution centres. Awareness-creation programmes have been promoted to make people recognize the value of planned families for the good of national socio-economic development. In its response to the United Nations Seventh Population Inquiry, the Government stated its intention to reduce population growth; the goal is based on fertility and contraceptive targets of reducing the crude birth rate to 25 per 1,000 by the year 2000, achieving universal access to contraceptives and attaining a contraceptive prevalence rate of 50 per cent by the year 2000.

158. In Western Asia, the Syrian Arab Republic and Yemen have recently changed their positions with regard to population growth and have launched population policies intended to reduce population growth. The Syrian Arab Republic has an average annual rate of population growth of 3.6 per cent, which has been increasing steadily in recent decades. The Government, which is greatly concerned with the human aspects of development, has now decided to reduce population growth, focusing on family planning, education, improving the status of women and increasing their participation in economic development. Yemen has a high rate of natural increase; it was calculated at 3.1 per cent for 1986 and was estimated to be higher in the following years. The Government, facing water shortages, increasing foreign debt and deficient social infrastructures due to population growth, considered that the demographic situation of the population to be one of the major national challenges. Therefore, in 1991, it inaugurated the National Population Strategy, 1990-2000, and the Population Action Plan, whose principal objectives were to improve health indicators, such as infant, child and maternal mortality, to reduce TFR from 8.5 to 6 births per woman by the year 2000, to increase contraceptive prevalence and to expand basic education. The National Population Council, which was also established in 1991, is charged with implementing those population-related programmes. In its response to the United Nations Seventh Population Inquiry, the Government reported that its goal was to reach a target rate of population growth of 2 per cent per annum by the year 2000.

159. Turkey is persisting in its efforts to reduce population growth. In its response to the United Nations Seventh Population Inquiry, the Government stated that one of its main objectives was to achieve a population structure that was concordant with stable economic growth and the achievement of social development targets. The

BOX 8. POPULATION AND ENVIRONMENT: THE CASE OF MALDIVES

Maldives is one of the smallest countries in the world, with a population of 230,818 persons in 1992; it is composed of tiny islands and mainly depends upon the ocean both for its food supply and for the economy, based on the exportation of sea products and on tourism. The average annual population growth rate of 3.4 per cent gives an approximate doubling time of 20 years for the population. The country is experiencing high fertility, with a total fertility rate of 6.4 births per woman in 1990.

In the country report presented at the Fourth Asian and Pacific Population Conference in August 1992, the Government reported that the overpopulation problem was particularly serious at Malé, the capital, where 26 per cent of the population resided in an area of less than two square kilometres. The land area of Malé has extended into the surrounding lagoon, up to the protective reef surrounding the island. This disruption of the natural protective system has resulted in occasional flooding; indeed, in 1987, the sea submerged a large part of the land that had been reclaimed between 1979 and 1986. The overpopulation of Malé also has depleted the natural freshwater aquifer of the island, making it increasingly saline. Coral depletion and sand mining for construction has exposed a large part of the island to flooding. Environmental policies coupled with effective population policies have become a matter of survival.

The Government is campaigning to involve the public in protecting the fragile ecosystem, while promoting child-spacing and family planning in an effort to reduce the pace of population growth. In 1984, mechanisms were established to develop the institutions required for effective environmental management. Several regulatory measures were adopted, including the National Environmental Action Plan. Since 1984, the country has also adopted a child-spacing policy and has promoted the widespread use of family planning services.

An interesting feature of the national policy is that the Government is convinced that the survival of the country depends not only upon its own environmental protection but on global environment protection. Maldives, with its tiny low-lying islands, is particularly at risk from the effects of global warming and rising sealevels. The Government has taken the threats posed by climatic changes very seriously and has introduced various initiatives directed to bringing the potential threat of rising sealevels to the attention of the international community.

Government also identified targets for population growth of 2.2 per cent per annum by 1995, 2 per cent by the year 2000 and 1.7 per cent by the year 2005. The corresponding target population sizes will be 62.9 million, 69.5 million and 76 million, respectively. The Government also noted that the fundamental principles and policies on population incorporated in the Five-Year Development Plan, 1990-1994, include improvement of the quality of human resources and extension of maternal and child health and family planning (MCH/FP) services to areas where fertility and mortality are high and services are insufficient.

160. Among the Asian countries that considered their rates of population growth to be satisfactory, there are a number of different approaches to population issues. Japan, which ranks eighth among the largest countries in the world, represents a very specific case in Asia. With annual population growth of 0.4 per cent and TFR of 1.7 for the period 1985-1990, Japan has an increasing elderly population. In its response to the United Nations Seventh Population Inquiry, the Government stated that it considered its current population growth, size and age structure to be satisfactory. However, it is greatly concerned by the prospects of a rapidly ageing population, which will result in Japan being one of the most aged countries in the world by the first quarter of the twenty-first century.

161. Singapore reported in the United Nations Seventh Population Inquiry that it was satisfied with the current rate of population growth and that it had adopted a policy to maintain the rate at that level. The Government acknowledged that it was concerned about the anticipated rapid ageing of its population arising from the rapid fall in fertility over the past two decades. The Government noted that the ageing of the workforce, the increasing welfare and healthcare burden and the shortage of younger workers were major challenges confronting Singapore. Therefore, the Government sought to raise fertility in order to reach and maintain replacement-level fertility in the near future.

162. For many years, Mongolia maintained a pronatalist population policy in which population expansion was seen as necessary, given the small size of the population compared with the vastness of its territory and the large resource potential. In 1989, the Government made a drastic reversal in its policy; alarmed by the high levels of maternal and infant mortality and by the growing burden of the youthful age structure in Mongolia, it took several steps to promote birth-spacing. In 1992, the Government approved the Guideline of the Population Policy of Mongolia as a first step towards adopting a new population policy. In its response to the United Nations Seventh Population Inquiry, the Government stated its intention of implementing a policy directed to maintaining the current population growth rate, estimated at 2.5 per cent per annum for the intercensal period 1979-1989, by coordinating socio-economic development and population reproduction and creating favourable conditions for families. Such a rate of growth should make it possible both to increase the size of the population and to decrease the high levels of maternal and infant mortality.

163. Brunei Darussalam is a small country which grew at an average annual rate of 3 per cent during the period 1981-1991. TFR averaged 3.4 births per woman in 1986. The Government affirmed its satisfaction with the current demographic trends; it has focused its policy on improving the education and levels of living of the population.

164. The population of Kuwait is growing at an average annual rate of 3.5 per cent. In its response to the United Nations Seventh Population Inquiry, the Government affirmed that it was satisfied with such a rate of growth and that its policy consisted in maintaining the rate at the current level. The Government also reported that it considered the size of the population to be too small. The Government's goal is to reach a target population size of 672,000 by 1995 and to contain the non-Kuwaiti population to a size not exceeding that of the Kuwaiti population.

165. Ten countries in Asia reported that they considered their rate of population growth to be too low. Six of those countries are located in Western Asia, a region in which the approach to population issues is quite different from that prevalent in the rest of Asia. Many of the Western Asian countries have population growth rates higher than 3 per cent but consider their countries underpopulated. Iraq, for example, was growing by a rate of 3.3 per cent per annum during the period 1985-1990; the Government is taking steps to increase this rate, granting allowances and benefits to families, as well as maternity leave at full salary and early retirement to working mothers. Saudi Arabia also has a high rate of population growth, estimated at 3.7 per cent during 1985-1990; the Government is using its oil profits to improve social services for its population and favours an increase in population growth.

166. Oman is another country that considered its rate of population growth to be too low; however, the Government has expressed concern over the future situation of Oman. The Government is aware that the current rate of population growth, estimated at 3.8 per cent for the period 1985-1990, will result in increasing pressure on the already scarce water resources. In addition, the oil reserves in Oman are forecast to be exhausted in another 20-25 years, constraining its ability to diversify its economy from reliance upon oil production. The Government, as a first step, had decided to conduct a population census in 1993; it would be the first comprehensive census undertaken in Oman.

167. Cyprus represents a different case; its population is growing at a lower rate than the previously cited countries, or by an estimated 1.1 per cent during the period 1985-1990. In its response to the United Nations Seventh Population Inquiry, the Government reiterated its intention of raising the rate of population growth in order to increase the population size. The Government explained that Cyprus is a small country, poor in physical resources, and one currently facing severe labour shortages. Therefore, ensuring an adequate rate of population growth was important for meeting the requirements of a growing economy. In the population policy included in the Five-Year Development Plan, 1989-1993, the Government explained that the abrupt reduction of the population after the Turkish invasion of 1974 and the demographic changes in the occupied area had transformed the demographic issue into a national problem. The first of the basic objectives of the population policy of the Plan was the achievement of the highest possible rate of population growth through such measures as the promotion of fertility by expansion of child-care facilities and extension of the period during which maternity allowance was granted and the return of Cypriot emigrants, and through the expantion of employment opportunities for university graduates and establishment of Cyprus University in order to reduce the number of graduates that remained abroad after completing their studies.

3. *Europe*

168. The majority of the countries in Europe, 33 out of 39, considered their rate of population growth to be satisfactory, while only five countries considered the rate to be too

low, and only one, the former Yugoslav Republic of Macedonia, considered its rate of population growth to be too high (table 23 and annex table A.1). In fact, the average annual rate of population growth for the region was 0.4 per cent for the period 1985-1990; and more than one country experienced, or would soon experience, negative rates. An important share of the population growth of a number of European countries is due to international migration. A recent phenomenon is the large inflow of refugees and asylum-seekers. For these reasons, several European countries have enacted legislation to curtail undocumented immigration. This is particularly true in the case of the European Union, which is attempting to tighten its internal links by demarcating its external frontiers.

169. A major concern of many European countries is the steady decrease in fertility and the subsequent ageing of the population associated with the spectre of population decrease. The large proportion of elderly people in a country is perceived to have a number of negative socio-economic implications, such as higher expenditure on health-care infrastructure, pensions and subsidies. The reaction to those demographic trends, however, translates into different policy approaches.

170. Among the countries that viewed their rate of population growth as satisfactory, some countries, such as Italy, abstain from formulating any specific policy with regard to demographic trends. According to the census of 1991, Italy has had a population growth rate approaching zero. For the country as a whole, TFR was 1.3 births per woman in 1991, the lowest in the world. The population growth rate was estimated at 0.2 per cent per annum for the period 1985-1990; national data show that if those fertility levels were to continue, the population could soon begin to decline. Low fertility coupled with a declining mortality rate has affected the age structure of the population, which is currently one of the oldest in the world. An additional feature of the age structure is the expected decline in the size of the working-age population in the succeeding years. In its response to the United Nations Seventh Population Inquiry, the Government of Italy stated that it had no specific policy to counter those trends although the rapid ageing of the population was considered a source of some concern.

171. The United Kingdom experienced an average annual rate of population growth of 0.3 per cent during the period 1985-1990. The Government does not have a national policy with regard to population growth. Against a background of a relatively stable population and small desired family size, the Government is concerned primarily with the well-being of the population rather than with its size. The Government considers that the solution to such problems as an ageing population and pressure on the environment in high-density areas would be easier with a stable population.

172. The Government of Germany views its population growth as characterized by a persistent low birth rate which would in the near future lead to a decrease in population. National studies confirm that this trend continued to exist after the unification of the Federal Republic of Germany and German Democratic Republic. Of even more importance were marked changes in the age structure, which showed a steady increase in the proportion of elderly people; this change would have repercussions in virtually all fields of government and society and would require significant adjustments. The Government noted that it was taking account of those requirements in its planning. The Government emphasized, however, that it did not consider that adopting a target for future birth rates was its task.

173. In its response to the United Nations Seventh Population Inquiry, the Government of the Netherlands noted that it had not adopted any measures to influence the size, growth rate or structure of its population. It recognized, however, that there was an implicit connection between measures taken within the framework concerning equal opportunities and population growth. In fact, a policy was pursued that encouraged both women and men to combine parenthood and work. However, the Government did not intend to impose measures that would influence decisions on whether to have children. The Government also reported that the ageing of population was creating problems of cost containment in the health-care sector, was increasing the burden on the social security system and was changing the proportion of employed to non-employed groups in the population; however, it had not adopted a policy directed to influencing the ageing trend.

174. The Government of Estonia reported that it considered population issues and integrating population factors into development planning to be of primary importance and that steps were being taken towards the formulation of a policy on population growth. In the meantime, the Government reported that some measures, such as allowances and other benefits to favour child-bearing, were being implemented to encourage an increase in fertility.

175. France has also been affected by the decline in fertility and population growth found in the majority of European countries. The Government reported that, during the 1990s, the country had experienced an annual rate of population growth of 0.5 per cent coupled with a rapidly ageing population. The Government was concerned by the fact that fertility was below replacement level and had consequently adopted a policy directed to promoting larger families and to reconciling professional and family life.

176. Albania has an unusual position among European countries, in that it has a relatively high rate of population growth, 1.85 per cent in the period 1985-1990, and high rates of maternal and infant mortality, both due in part to the lack of contraceptives in the country. The Government, greatly concerned about the excessive maternal and child mortality rates and, in particular, the significant maternal mortality related to illegal abortions, liberalized the interruption of pregnancy in 1991. In its 1991-1995 Development Plan, the Government included a well-defined population policy, focusing on maternal and child health, demographic data collection, women, and population and development. One of its main goals is to improve the status of women by supporting the Albania Women's Union in its efforts to disseminate family planning services and information and to extend access to education.

177. The five European countries that viewed their rate of population growth as too low have decided to counter in an active way the decreasing growth rate of their population and to increase the levels of fertility. Hungary reported that its population began to decline in 1981. Although it considered that the decline itself had no specific implications for social and economic development, the decrease in fertility and the concomitant changes in the age structure of the population had serious implications. The Government noted that the process of population ageing was relatively advanced and that all projections indicated that the size and proportion of the youthful population would continue to decrease while that of the elderly would continue to increase. One of the problems underlined by the Government was that the shift of the age distribution was raising serious problems in the financing of pension plans.

Therefore, the Government sought to attain replacement-level fertility through the adoption of a set of population policy measures.

178. The Government of Latvia considered that its major concerns in the field of population were that the birth rate was decreasing and was below replacement level; in addition, the foreign-born population that had immigrated to Latvia after the Second World War was creating a difficult social situation because they had had difficulty in integrating into Latvian society. The strained economic situation faced by the country had made the solution of those problems quite problematic. Therefore, although the Government considered its rate of population growth to be too low, it has not yet adopted a specific policy.

179. The former Yugoslav Republic of Macedonia is the only developed country that reported that it considered its rate of population growth to be too high. This situation is not new for that country, which was already implementing policies to reduce fertility and population growth prior to its independence from Yugoslavia. The Government reported that a resolution for population policy had been adopted in the Republic in 1987 and that its implementation had helped to reduce both fertility and natural increase, although not to the desired levels; the average annual rate of population growth for the period 1987-1991 was still 1.3 per cent. The Government stated that a decline in population growth would allow more rapid socio-economic development of the country.

4. *Latin America*

180. Of the 33 countries of Latin America, 17 considered their rate of population growth to be too high, while 14 considered it satisfactory and only two considered it too low (table 23). Geographical location influences the views of Governments in Latin America with regard to population growth. Most of the 17 countries that considered population growth to be too high are small, densely populated countries in the Caribbean. Most of the countries that considered population growth to be satisfactory are large countries located in South America. In Central America, five countries considered their rates of population growth to be too high, whereas three countries considered their rates of population growth to be satisfactory (annex table A.1).

181. In the Caribbean, most of the countries considered their rate of population growth to be too high even though those countries have the lowest average rate of population growth in the region (an average of 1.45 per cent for the region in 1985-1990). Jamaica was the first Caribbean Community country to adopt a population policy in 1983. The number of births per woman showed a population growth rate of over 0.9 per cent per annum during 1985-1990, although significant variations in the growth rate have occurred annually, mainly related to the magnitude of emigration. The national family planning programme in Jamaica succeeded in lowering TFR from almost 5.8 births per woman in the period 1965-1970 to over 2.6 in the period 1985-1990. In its response to the United Nations Seventh Population Inquiry, the Government reported that the aim of its policy was not to exceed a population of 2.7 million by the year 2000 and 3 million by the year 2020. The Government has also identified a target for the average annual rate of growth over the next three decades of below 0.8 per cent, with the ultimate aim of reaching replacement-level fertility by the year 2000. Although the economic recession has placed increasing constraints on the realization of its population programme, the Government has stressed the goal of improving infrastructure, health, nutrition, education and environmental conditions.

182. Trinidad and Tobago has a long history of Government-supported family planning programmes. In its response to the United Nations Seventh Population Inquiry, the Government noted that although it had not adopted quantitative targets, it had incorporated population issues into the national development planning process. The Government also reported that after several years of inactivity it had in 1989 re-established the Population Council, which was originally established in 1967. The Mandate of the new Population Council is to design and implement an explicit population policy. The Government also seeks to make family planning information and services accessible to all couples through Government-run health centres, as well as to expand population and family life education programmes.

183. Grenada, which has a very low rate of population growth (0.2 per cent per annum for the period 1985-1990), mainly due to the significant emigration flow, seeks to maintain this low level of population growth. Because it desires to reduce emigration and to encourage the repatriation of its nationals, this policy implies increased efforts to reduce natural increase. In its response to the United Nations Seventh Population Inquiry, the Government reported that it had in place a national population policy to address population growth with the objective of achieving a rational balance between population and resources.

184. In the Dominican Republic, the National Council for Population and Family Activities has been instrumental in reducing TFR from 7.4 births per woman in the 1960s to 3.8 for the period 1985-1990. The country has a comparatively low rate of population growth (2.2 per cent per annum for the period 1985-1990) due to heavy emigration. Among the priorities in the working programme of the Council for 1993-1995 are strengthening education programmes concerning population and health, and reorganizing and strengthening the family planning programme.

185. The Government of the Bahamas has not adopted an explicit population policy although, in its response to the United Nations Seventh Population Inquiry, it recognized the interrelations between population and sustainable development. The Government has chosen to concentrate on development and to focus its policy on improving education, developing human resources, achieving full employment and improving health and the socio-economic status of women.

186. Recent economic hardships have obliged the Government of Cuba to increase efforts to maintain levels of health, education and employment. In its response to the United Nations Seventh Population Inquiry, the Government reported that this had been possible only because the central focus of its policy had always been to ensure adequate nutritional, educational and health services for its population.

187. Most of the Central American countries had positions similar to those of the Caribbean countries, with a majority of countries considering their rates of population growth to be too high. Costa Rica, for example, promotes a policy of sustainable development. The Government has elaborated a comprehensive population policy directed to balancing population and resources, which is focused on health, family planning, status of women, family education, population distribution and protecting the environment. Among other achievements, the adult literacy rate is currently 93 per cent.

188. Mexico has a long history of integrating demographic variables into development planning and of formulating population policies. According to the Government's response to the United Nations Seventh Population Inquiry, the average annual rate of population growth decreased from 3.5 per cent in 1970 to 2 per cent in 1990, mainly due to a decline in fertility. The Government of Mexico reported the objective of containing population growth at a rate of 1.8 per cent per annum by 1994 and of 1.5 by the year 2000. The National Population Programme for 1989-1994 included among its objectives the development of public awareness regarding population issues through information and education programmes, the refinement of family planning programmes, on increase in contraceptive prevalence, and improvment of the status of women and of demographic research.

189. The Government of Nicaragua is concerned about the high rate of population growth, estimated to be the highest in Latin America (3.7 per cent per annum for the period 1990-1995). The Government has therefore decided to give new emphasis to its population strategy through such means as strengthening the Government offices for the coordination of population activities, supporting the systematic linkage of demographic phenomena with development planning, formulating a population policy that takes into account all demographic variables, promoting an understanding of the importance of good demographic data and of the interrelations between economic, demographic and ecological factors by promoting population education.

190. Panama, which is one of the three Central American countries (along with Guatemala and Belize) that considered their rates of population growth to be satisfactory, has abstained from adopting an explicit policy in regard to population growth; however, it has implemented several policies to promote socio-economic development, such as the Plan of Action for Human Development, Childhood and Youth, 1992-2000. In its response to the United Nations Seventh Population Inquiry, the Government noted that population factors needed to be explicitly considered in formulating policies to promote socio-economic development because the two elements were clearly interrelated.

191. Guatemala, with an annual average population growth rate of 2.9 per cent, has serious environmental problems related to population pressures, as do other countries in the Central American isthmus. Guatemala lost about 43 per cent of its 1950 forested area between 1960 and 1981. Between 1977 and 1987, the proportion of unproductive land grew by 14 per cent, reaching 24 per cent of the total land area. The Petén region of Guatemala, one of the largest subtropical forests in Central America, is under serious threat, as Petén is seen as a promised land and destination for migrants from other parts of Guatemala and neighbouring countries. The policy of the Government remains concentrated on economic issues and the country has no official family planning programme.

192. As previously noted, Governments of South American countries mainly perceive economic and social development as the major way of influencing demographic phenomena. Therefore, they have generally refrained from directly addressing population issues; rather, they have adopted policies to improve the economic situation of the country, which they believe will, in turn, influence population trends.

193. Brazil, with a population of 149 million and a growth rate of 1.9 per cent per annum, is the fifth most populous country in the world. It is also known for the situation in Amazonia, where even low population density is an unsustainable burden on the fragile ecosystem. Although the Government has welcomed the decline in population growth in Brazil, it has refrained from implementing population policies and prefers instead to focus on economic policy measures. It has only recently agreed to support family planning programmes and strongly emphasizes the right of couples to choose the number and spacing of their children.

194. Bolivia adopted a population policy in 1992; although population density is still considered low, regional differentials in patterns of population distribution result in population pressure in some areas. In its response to the United Nations Seventh Population Inquiry, the Government of Bolivia reported the rate of population growth to be satisfactory. Among the specific strategies included in the recent population policy are reduction of maternal and child morbidity and mortality, dissemination of information on reproductive health, employment creation, protection of the environment and establishment of coordination mechanisms for the national population policy.

195. Paraguay, with an average annual rate of population growth of 2.9 per cent, has one of the highest TFRs in South America, 4.6 births per woman in 1985-1990. With the recent political changes that have taken place in Paraguay, the Government has begun to support family planning activities. However, the Government generally prefers to address economic, environmental and social problems directly in order to improve the conditions of the population and it has not yet formulated a national population policy.

196. Venezuela is experiencing a decrease in the annual rate of population growth, which averaged 2.4 per cent for the period 1985-1990. The country has abstained from formulating a population policy; therefore, the Government has neither an official position towards the population growth rate nor a policy to modify it. The Government is conscious of the pressure created by a growing population on the provision of public services, however, it is convinced that the gravity of the situation is due to the uneven distribution of the population, which is concentrated in the northern part of the country, and to the amplitude of international migration flows. The Government intends to pursue a sectoral approach, focusing on such areas as health, living conditions and social policies, with a particular emphasis on adolescent fertility. The Government is considering the integration of these issues into the Ninth National Development Plan, covering the period 1994-1999.

197. Only two countries in South America, Ecuador and Peru, considered their population growth rates to be too high. Ecuador has adopted a rather cautious stand on population issues. In its response to the United Nations Seventh Population Inquiry, the Government reported that the National Population Policy was directed to regulating and adjusting population growth in line with the actual potential resources of Ecuador and it emphasized that although population was an important variable for social development, it was not integrally linked to economic development. Therefore, family planning activities should be developed as part of national health-care programmes and not as means of demographic control.

198. Peru, on the other hand, appears to have recently decided to tackle demographic matters more directly, following the approach more typical of the Caribbean and Central American countries. In 1990, the President of Peru announced an intensive birth control campaign as a means of averting rapid population increase. In its response to the United Nations Seventh Population Inquiry, the

Government stated the objective of containing the population at 26.3 million by the year 2000 and decreasing the rate of natural increase to 2 per cent per annum by 1995. The National Population Programme for 1991-1995 seeks, among other objectives, to reduce population growth through a decline in fertility, to reduce maternal and infant mortality and to improve the status of women and the rational use of natural resources. As of 1993, however, the Government's policy remains centred on economic issues, with little action taken to implement the new approach to population issues.

5. *Northern America*

199. Both the United States of America and Canada considered their rate of population growth to be satisfactory and have no explicit policy of intervention with regard to population growth. An important share of their population growth is derived from immigration, while their total fertility rates are near replacement level. However, as a large part of the population of both countries is in the reproductive ages, their populations will continue to grow until at least the first part of the twenty-first century.

200. The United States had a population of 255 million in 1992, placing it third among the most populous countries in the world. The annual rate of population growth was estimated at 0.9 per cent for the period 1985-1990, while TFR was slightly over 1.9 births per woman for the same period. In its response to the United Nations Seventh Population Inquiry, the Government explained that despite below-replacement fertility, the United States was the fastest growing industrialized country, due to the momentum of past growth and increasing immigration. The Government reported that although proposals had been made in the past for the adoption of an official national population policy, such a step had not been taken. The Government reiterated its concern over the issues arising in an ageing population; it reported that whereas it had supported studies on the impact of ageing and had developed policies to maintain strong programmes of social security and other care for the elderly, it had not formulated policies to influence the balance among age groups. The Government acknowledged the demographic impact of its immigration policies and explained that consideration of the demographic, economic and social impact of immigration was playing a role in the formulation of its immigration policy. The United States also recognized the impact of its population growth on the prospects for environmentally sustainable development and reported that it was taking measures to reduce greenhouse gas emissions, to promote energy efficiency and alternative fuels and to develop more sustainable agricultural practices.

201. In Canada, TFR is below replacement level, 1.7 births per woman during the past decade, while the average annual population growth rate was 1.1 per cent for the period 1985-1990. Concerns about ageing of the population and the need for human resources have led Canada to adopt a policy to promote moderate and regulated immigration. Canada has expressly included environmental considerations in the demographic review that the country is undertaking. One of its aims is to determine the criteria for sustainable development, applying to Canada a concept that is usually limited to the developing world. This is in line with the position of some environmental specialists, who argue for a rate of zero population growth in the developed countries as a means of limiting the negative environmental consequences (e.g., depletion of the ozone layer and global warming due to carbon dioxide emissions from energy use or acid rains) of the high rates of consumption in those countries.

6. *Oceania*

202. In 1993, eight of the 13 countries in Oceania considered their rate of population growth to be too high, whereas four countries considered it to be satisfactory; and only one country, Nauru, considered its rate of population growth to be too low. Population policies in Oceania are not homogeneous mainly because of the presence in the region of two developed countries, Australia and New Zealand, which have large territories and demographic trends similar to those in other developed countries. In contrast, the other countries in the region are small island countries with attitudes towards population issues similar to those prevalent in the Caribbean region. The concept of sustainable development and of equilibrium between human settlements and natural resources has a stronger significance for those island countries, leading a majority of them to adopt policies to reduce population growth, regardless of whether their current rates of population growth are high.

203. For instance, the rapid growth experienced by the Marshall Islands is a matter of serious concern for the Government, which considers the growing population to be a threat to the narrow resources base. In 1992, the Marshall Islands adopted a national population policy which contains a detailed appraisal of the demographic situation of the country in relation with its economic, social and ecological opportunities of development. The rate of growth is reported to have reached an average annual level of 4.1 per cent for the period 1980-1988. According to the Government's projections, only a drastic reduction in the fertility rate would be able to produce a significant decrease of the population growth rate by the year 2000. Therefore, policy recommendations have been elaborated to prepare the country for the almost inevitable increase that is projected. Included among the recommendations is the increased availability of family planning services, efforts to increase community awareness of the adverse impacts of rapid population growth, efforts to improve the availability of socio-economic and demographic data in order to improve the planning process and establishment of a population and development unit to facilitate the planning process.

204. Micronesia, with a population growth rate of 3.4 per cent for the period 1985-1990, faces a similar problem. Its national population policy, implemented since 1989, is directed to reducing population growth primarily through the reduction of fertility by means of family planning. The Government of Papua New Guinea also desires to reduce its rate of population growth. In 1991, it adopted a national population policy which recognizes the detrimental consequences of national population growth trends. Its principal aim is sustainable development, which is to be achieved through various programmes, addressing, among other things, maternal and child health, family planning, education and urbanization.

205. The situation of Tonga is quite different. In its response to the United Nations Seventh Population Inquiry, the Government explained that Tonga is a small island economy; the average annual population growth rate has steadily decreased since 1956 mainly due to overseas migration, from an annual rate of 3.1 per cent during the period 1956-1966 to 0.5 during the period 1976-1986. The Government noted that migration was boosting the economy of the country because of the remittances of emigrants, which represented about 30 per cent of the national gross

domestic product (GDP). The Government reported that it was appraising the demographic situation and especially the interaction between demographic factors and social variables. The Government affirmed that although the process was still at an early stage, it had made a conscious effort to formulate population-related policies.

206. The two developed countries in the major area, Australia and New Zealand, are among the four countries that considered their rate of population growth to be satisfactory. Australia has an average annual population growth rate of 1.62 per cent, a large share of which is due to immigration. The Government considered the trend to be satisfactory and has no explicit policy in regard to population growth.

207. New Zealand has a population growth rate of 0.87 per cent per annum and the Government is concerned about the ageing of the population. It has chosen, however, not to seek to influence population growth directly by modifying demographic variables. The only explicit policy concerning population-related issues that has been adopted is the immigration policy; the Government of New Zealand has introduced plans to attract more immigrants and has determined specific immigration targets.

208. Nauru is the only country in the major area that viewed its population growth rate as being too low. The country experienced a population growth rate of 2.6 per cent for the period 1985-1990, but the Government desires to increase the rate in order to increase the proportion of native-born in the overall population. In fact, the Government has been obliged to resort to foreign labour. By increasing the native population, which currently represents slightly more than 50 per cent of the total population, the Government hopes to be able to decrease its dependence upon foreign labour.

7. *Union of Soviet Socialist Republics (former)*[7]

209. The 12 countries covered in this section, which composed part of the former USSR, have average annual rates of population growth that range widely between 0.0 per cent for the Republic of Moldova to 2.5 per cent for Tadjikistan and Turkmenistan. These countries appear to follow two prevalent patterns in regard to the rate of population growth and related demographic variables—the Asian pattern, with relatively high fertility and population growth; or the European pattern, with very low fertility and population growth.

210. Since their recent independence, many of these countries have delayed the formulation of population policies due to other priorities in the economic and social fields. All of them, however, assign importance to demographic questions and some are beginning to formulate or implement individual population policies.

211. For instance, in Belarus, the Government is well aware of the uniqueness of the demographic and social patterns of the country, and is formulating specially adapted policies. Belarus has reached almost zero population growth (0.1 per cent), whereas the Chernobyl disaster has focused attention on child well-being and the genetic future of the country. Belarus is concentrating on restructuring social safety nets; although the Government envisages introducing personal contributions and insurance in the social security system, it wants to improve the already extensive family and child benefits, in order to safeguard the future of the newly independent country. In its response to the United Nations Seventh Population Inquiry, the Government stated its intention of supporting the rate of population growth through policies directed to increasing fertility. The Government desires to achieve a rate of population growth compatible with the target population size of 10.4 million by 1995, 10.5 million by the year 2000 and 10.8 million by the year 2015.

212. Ukraine also is experiencing very low rates of population growth. The Government reported that in 1992, the population only grew due to migration; as a result of decreasing fertility and increasing mortality, the number of births had been exceeded by the number of deaths for the first time. The Government stated its intention of preventing the rate of growth from becoming negative and causing the size of the population to decrease. Its policy is based mainly on measures to promote an increase in fertility, such as its policy to strengthen the family and improved assistance for the children.

213. The Russian Federation has chosen to concentrate on the solution of the most urgent economic, political and social problems that the country is facing since the breakup of the former USSR. Therefore, the Government declared that although demographic variables were considered to be important and taken into account in planning activities, no specific population policy had been formulated.

214. The newly independent former republics in Central Asia are undergoing a difficult period due to the economic and political transition. In most of those countries, a large share of the population is living below the poverty level, while population growth rates and fertility rates are the highest of the former USSR. None of the former republics has formulated a national population policy, although in 1990 a mass campaign to promote contraception and birth-spacing was inaugurated in many of them.

NOTES

[1] For some countries, mostly in Europe, different assumptions were also made about future international migration.

[2] For a list of the countries classified as least developed by the General Assembly of the United Nations, see Explanatory notes in this volume.

[3] Growth rates in the less developed regions, however, stagnated between 1975-1980 and 1985-1990.

[4] Including Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, the Republic of Moldova, the Russian Federation, Tajikistan, Turkmenistan, Ukraine and Uzbekistan. The Baltic States—Estonia, Latvia and Lithuania—are included in Northern Europe.

[5] The 15 countries with the highest level of HIV prevalence in the world are in these three regions (see box 5).

[6] Total fertility rates in Brazil and Mexico declined by about 3 children per woman for over 25 years, from 1960-1965 to 1985-1990.

[7] See note 4.

REFERENCES

Horiuchi, Shiro (1992). Stagnation in the decline of world population growth during the 1980s. *Science* (New York), vol. 257 (August 1992), pp. 761-765.

United Nations (1993). *World Population Prospects: The 1992 Revision.* Sales No. E.93.XIII.7.

ANNEX

TABLE A.1. GOVERNMENTS' OVERALL APPRAISAL OF RATES OF POPULATION GROWTH AND INTERVENTION TO INFLUENCE RATES, BY LEVEL OF DEVELOPMENT AND GEOGRAPHICAL REGION, 1993

Rates too low		*Rates satisfactory*				*Rates too high*		
No direct intervention reported (1)	*Intervention to raise rates (2)*	*Intervention to raise rates (3)*	*Intervention to maintain rates (4)*	*No direct intervention reported (5)*	*Intervention to lower rates (6)*	*Intervention to lower rates (7)*	*No direct intervention reported (8)*	*Total number of countries (9)*
				World				
3	18	4	25	56	1	71	12	190
				Developed countries				
1	6	3	19	26	0	1	0	56
				Developing countries[a]				
2	12	1	6	30	1	70	12	134
				Least developed countries				
1	2	0	1	11	0	24	8	47
				REGIONS				
				Africa				
				Eastern Africa				17
—	—	—	Mauritius	Djibouti Somalia	—	Burundi Comoros Kenya Madagascar Rwanda Seychelles Uganda Zambia Zimbabwe	Eritrea Ethiopia Malawi Mozambique United Republic of Tanzania	
				Middle Africa				9
—	Gabon	—	Equatorial Guinea	Angola Chad Sao Tome and Principe Zaire	—	Cameroon Congo	Central African Republic	
				Northern Africa				6
—	—	—	—	Libyan Arab Jamahiriya Sudan	—	Algeria Egypt Morocco Tunisia	—	
				Southern Africa				5
—	—	—	—	—	—	Botswana Lesotho South Africa Swaziland	Namibia	
				Western Africa				16
—	—	Côte d'Ivoire	—	Benin Guinea-Bissau Mauritania	—	Cape Verde Gambia Ghana Guinea Liberia Mali Niger Nigeria Senegal Sierra Leone	Burkina Faso Togo	
				Total				
0	1	1	2	11	0	29	9	53

TABLE A.1 *(continued)*

Rates too low		*Rates satisfactory*				*Rates too high*		
No direct intervention reported (1)	*Intervention to raise rates (2)*	*Intervention to raise rates (3)*	*Intervention to maintain rates (4)*	*No direct intervention reported (5)*	*Intervention to lower rates (6)*	*Intervention to lower rates (7)*	*No direct intervention reported (8)*	*Total number of countries (9)*
				Asia				
				Eastern Asia				5
—	Democratic People's Republic of Korea	—	Mongolia	Japan	—	China Republic of Korea	—	
				South-eastern Asia				10
—	Cambodia Lao People's Democratic Republic	—	Singapore	Brunei Darussalam Myanmar	Malaysia	Indonesia Philippines Thailand Viet Nam	—	
				Southern Asia				9
Bhutan	—	—	—	—	—	Bangladesh India Iran (Islamic Republic of) Maldives Nepal Pakistan Sri Lanka	Afghanistan	
				Western Asia				14
—	Cyprus Iraq Israel Oman Qatar Saudi Arabia	—	Kuwait	Bahrain Lebanon	—	Jordan Syrian Arab Republic Turkey Yemen	United Arab Emirates	
				Total				
1	9	0	3	5	1	17	2	38
				Europe				
				Eastern Europe				6
—	Bulgaria Hungary	Romania	Czech Republic[b] Slovakia[b]	Poland	—	—	—	
				Northern Europe				10
Latvia	—	Lithuania	—	Denmark Estonia Finland Iceland Ireland Norway Sweden United Kingdom	—	—	—	
				Southern Europe				14
—	Greece	—	Albania Bosnia and Herzegovina Croatia San Marino Slovenia Yugoslavia[c]	Andorra Holy See Italy Malta Portugal Spain	—	The former Yugoslav Republic of Macedonia	—	
				Western Europe				9
—	Monaco	France	Belgium Luxembourg	Austria Germany Liechtenstein Netherlands Switzerland	—	—	—	
				Total				
1	4	3	10	20	0	1	0	39

TABLE A.1 *(continued)*

Rates too low		*Rates satisfactory*				*Rates too high*		
No direct intervention reported (1)	*Intervention to raise rates (2)*	*Intervention to raise rates (3)*	*Intervention to maintain rates (4)*	*No direct intervention reported (5)*	*Intervention to lower rates (6)*	*Intervention to lower rates (7)*	*No direct intervention reported (8)*	*Total number of countries (9)*
				Latin America				
				Carribean				13
—	—	—	Antigua and Barbuda	Bahamas Cuba	—	Barbados Dominica Dominican Republic Grenada Haiti Jamaica Saint Kitts and Nevis Saint Lucia Saint Vincent and the Grenadines Trinidad and Tobago	—	
				Central America				8
—	—	—	—	Belize Guatemala Panama	—	Costa Rica El Salvador Honduras Mexico Nicaragua	—	
				South America				12
Argentina	Uruguay	—	—	Bolivia Brazil Chile Colombia Guyana Paraguay Suriname Venezuela	—	Ecuador Peru	—	
				Total				
1	1	0	1	13	0	17	0	33
				Northern America				2
—	—	—	—	Canada United States of America	—	—	—	
				Total				
0	0	0	0	2	0	0	0	2
				Oceania				
				Australia - New Zealand				2
—	—	—	—	Australia New Zealand	—	—	—	
				Melanesia				4
				Fiji Vanuatu	—	Solomon Islands	Papua New Guinea	
				Micronesia				4
—	Nauru	—	—	—	—	Kiribati Marshall Islands Micronesia (Federated States of)	—	
				Polynesia				3
—	—	—	—	—	—	Samoa Tonga Tuvalu	—	
				Total				
0	1	0	0	4	0	7	1	13

TABLE A.1. *(continued)*

Rates too low		*Rates satisfactory*				*Rates too high*		
No direct intervention reported (1)	*Intervention to raise rates (2)*	*Intervention to raise rates (3)*	*Intervention to maintain rates (4)*	*No direct intervention reported (5)*	*Intervention to lower rates (6)*	*Intervention to lower rates (7)*	*No direct intervention reported (8)*	*Total number of countries (9)*
				Union of Soviet Socialist Republics (former)[d]				12
—	Belarus Ukraine	—	Armenia Azerbaijan Georgia Kazakhstan Kyrgyzstan Republic of Moldova Tajikistan Turkmenistan Uzbekistan	Russian Federation	—	—	—	
				Total				
0	2	0	9	1	0	0	0	12

Source: The Population Policy Data Bank maintained by the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat.

[a]Including the least developed countries.

[b]The former State of Czechoslovakia was dissolved on 31 December 1992 and became the independent States of the Czech Republic and Slovakia on 1 January 1993.

[c]Unless otherwise indicated, data for Yugoslavia shown in this publication for the period beginning 27 April 1992 refer to the Federal Republic of Yugoslavia in terms of its boundaries as they exist from that date. Data for the period prior to 27 April 1992 refer to the former Socialist Federal Republic of Yugoslavia in terms of its boundaries as they existed prior to that that.

[d]Not including Estonia, Latvia and Lithuania, which are included in Northern Europe.

III. FERTILITY

215. The description of fertility levels and trends presented below in section A covers the period from 1975-1985 to 1985-1990, updating the analysis presented in *World Population Monitoring, 1991* (United Nations, 1992e) and expanding it to 1990-1995 on the basis of projected figures.[1]

216. Although the present overview adds only projected figures to the preceding analysis, it underscores and confirms a number of interesting demographic features. For instance, in the less developed regions, while it is assumed that current fertility declines will continue, annual numbers of births are expected to continue growing, sometimes considerably, as is shown below.

217. In the more developed regions, TFRs have (with few exceptions) fallen further below replacement level fertility;[2] however, a feature that has now been confirmed in those regions is the increase in fertility rates in a number of countries. These conclusions are, of course, based on TFRs and the impact on completed family size cannot yet be ascertained because of the recency of this trend. Another feature of these regions is that the observed fertility decline is accompanied by a decline in the average annual number of births, which is in sharp contrast to the less developed regions, where the fertility decline is associated with increments in the average annual number of births and with continued population growth, as a result, notably, of the increasing size of the cohorts of women of reproductive age (Horiuchi, 1991).[3]

218. As concerns the determinants of those fertility trends, the fertility reductions in the less developed regions can be attributed to the effect of improved socio-economic conditions, an effect often greatly enhanced by family planning programme activities (see, e.g., United Nations, 1987; Mauldin and Ross, 1991).[4] In the more developed regions, however, the relations between societal changes and the steep fertility declines, as well as the slight fertility increments, have not yet been satisfactorily untangled (United Nations, 1992d).

A. LEVELS AND TRENDS

1. *Total fertility rates*

219. In recent decades, total fertility rates have been falling (see table 26 and figures 18-20). For example, the

TABLE 26. ESTIMATED AND PROJECTED TOTAL FERTILITY RATES AND PERCENTAGE CHANGE: WORLD, MAJOR AREAS AND REGIONS, 1975-1980, 1980-1985, 1985-1990 AND 1990-1995

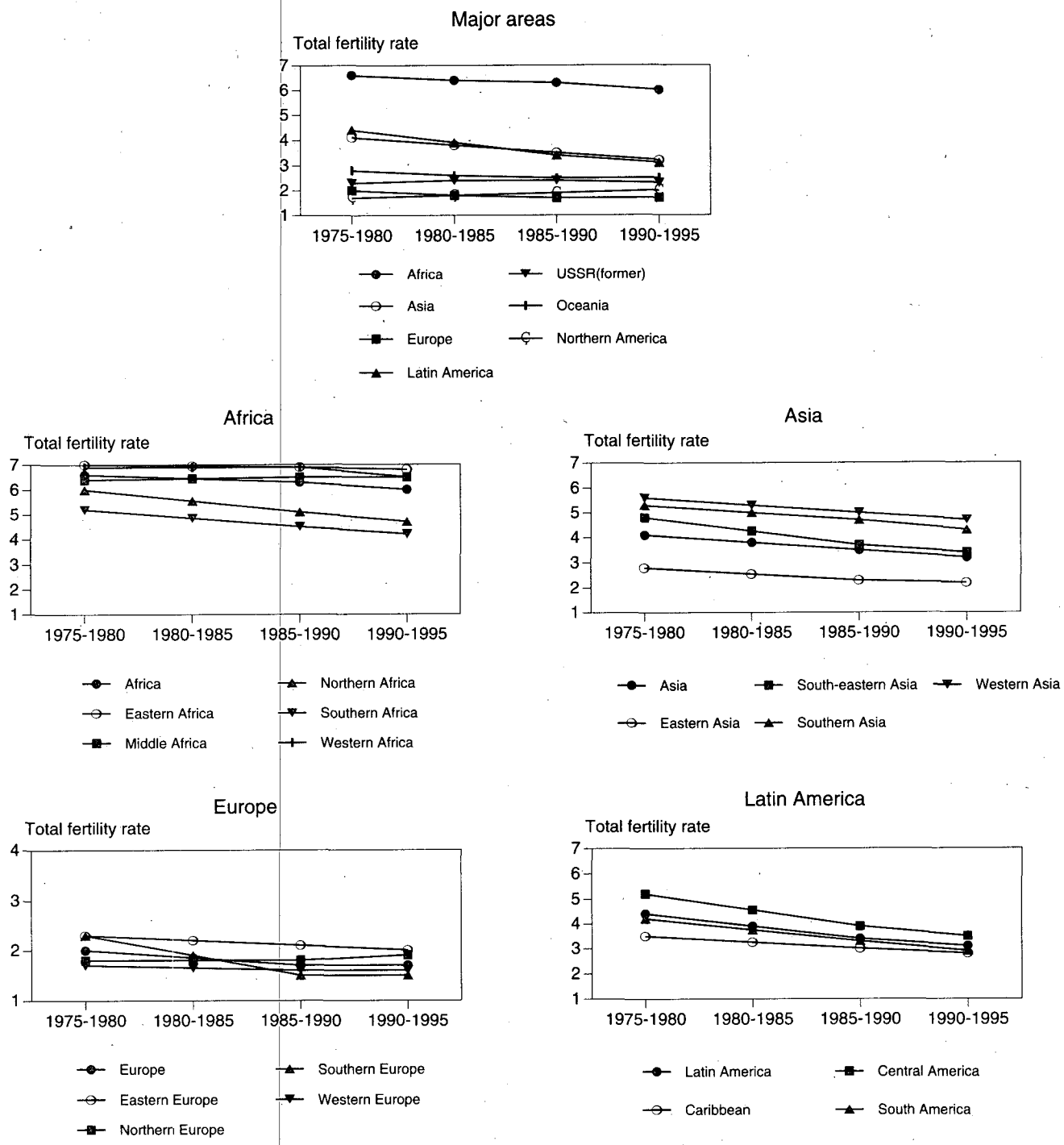
Major area and region	Total fertility rates				Percentage change			
	1975-1980	1980-1985	1985-1990	1990-1995	1975-1980–1980-1985	1980-1985–1985-1990	1975-1980–1985-1990	1975-1980–1990-1995
	Estimated		Projected[a]		Estimated		Projected[a]	
World total	3.8	3.6	3.4	3.3	−5.3	−5.6	−10.5	−13.2
More developed regions	2.0	1.9	1.9	1.9	−5.0	0.0	−5.0	−5.0
Less developed regions	4.6	4.2	3.9	3.6	−8.7	−7.1	−15.2	−21.7
Least developed countries	6.6	6.4	6.1	6.0	−3.0	−4.7	−7.6	−9.1
Africa	6.6	6.4	6.3	6.0	−3.0	−1.6	−4.5	−9.1
Eastern Africa	7.0	6.8	6.9	6.8	−2.9	1.5	−1.4	−2.9
Middle Africa	6.4	6.5	6.5	6.5	1.6	0.0	−1.6	1.6
Northern Africa	6.0	5.7	5.1	4.7	−5.0	−10.5	−15.0	−21.7
Southern Africa	5.2	4.9	4.5	4.2	−5.8	−8.2	−13.5	−19.2
Western Africa	6.9	6.9	6.9	6.5	−0.0	0.0	0.0	−5.8
Asia	4.1	3.8	3.5	3.2	−7.3	−7.9	−14.6	−22.0
Eastern Asia	2.8	2.4	2.3	2.2	−14.3	−4.2	−17.9	−21.4
South-Eastern Asia	4.8	4.2	3.7	3.4	−12.5	−11.9	−22.9	−29.2
Southern Asia	5.3	5.2	4.7	4.3	−1.9	−9.6	−11.3	−18.9
Western Asia	5.6	5.3	5.0	4.7	−5.4	−5.7	−10.7	−16.1
Europe	2.0	1.8	1.7	1.7	−10.0	−5.6	−15.0	−15.0
Eastern Europe	2.3	2.2	2.1	2.0	−4.3	−4.5	−8.7	−13.0
Northern Europe	1.8	1.8	1.8	1.9	0.0	0.0	0.0	5.6
Southern Europe	2.3	1.8	1.5	1.5	−21.7	−16.7	−34.8	−34.8
Western Europe	1.7	1.6	1.6	1.6	−5.9	0.0	−5.9	−5.9
Latin America	4.4	3.9	3.4	3.1	−11.4	−12.8	−22.7	−29.5
Caribbean	3.5	3.2	3.0	2.8	−8.6	−6.3	−14.3	−20.0
Central America	5.2	4.6	3.9	3.5	−11.5	−15.2	−25.0	−32.7
South America	4.2	3.8	3.3	2.9	−9.5	−13.2	−21.4	−31.0
Northern America	1.8	1.8	1.9	2.0	0.0	5.6	5.6	11.1
Oceania	2.8	2.6	2.5	2.5	−7.1	−3.8	−10.7	−10.7
USSR (former)[b]	2.3	2.4	2.4	2.3	4.3	0.0	4.3	0.0

Source: World Population Prospects: The 1992 Revision (United Nations publication, Sales No. E.93.XIII.7), annex table A.12.

[a]Medium variant.

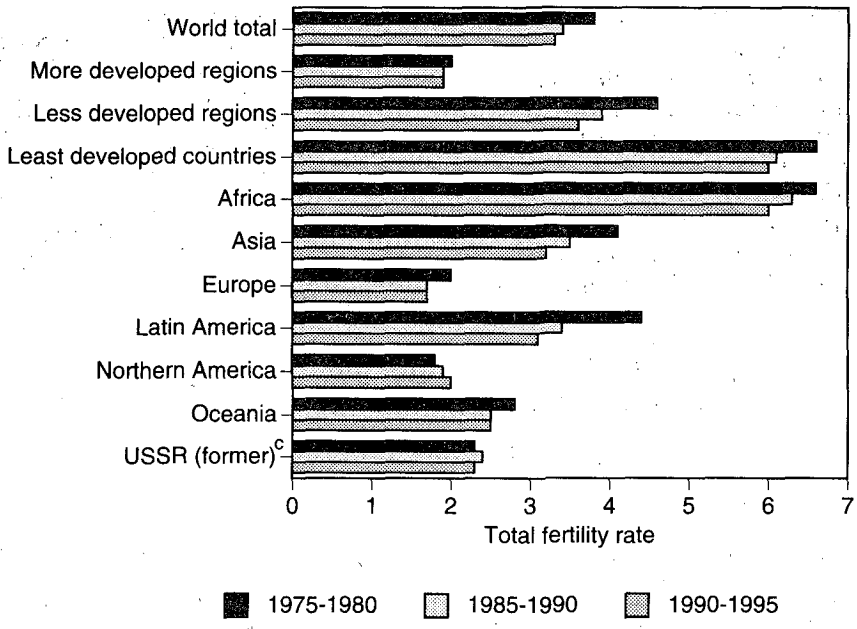
[b]Not including Estonia, Latvia and Lithuania, which are included in Europe.

Figure 18. Trends in total fertility rates: major areas and regions, 1975-1990[a] and 1990-1995[b]



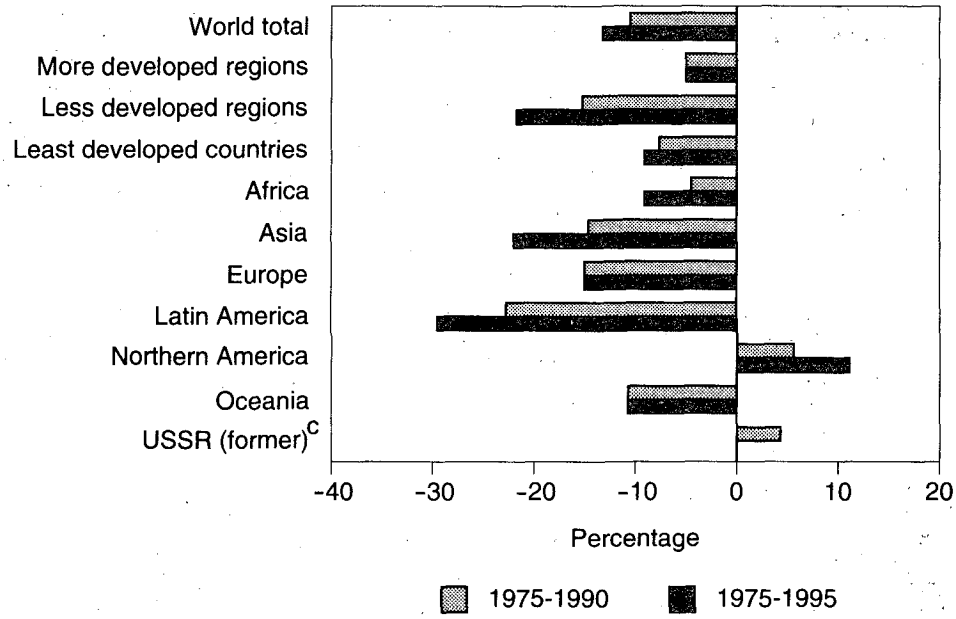
Source: table 26.
[a]Estimated.
[b]Medium-variant projections.
[c]Not including Estonia, Latvia and Lithuania, which are included in Northern Europe.

Figure 19. Total fertility rates: major areas, 1975-1980[a], 1985-1990[a] and 1990-1995[b]



Source: table 26.
[a]Estimated.
[b]Medium-variant projections.
[c]Not including Estonia, Latvia and Lithuania, which are included in Europe.

Figure 20. Percentage change in total fertility rates: major areas, 1975-1980–1985-1990[a] and 1975-1980–1990-1995[b]



Source: table 26.
[a]Estimated.
[b]Medium-variant projections.
[c]Not including Estonia, Latvia and Lithuania, which are included in Europe.

world TFR declined from an average of 3.8 births per woman in 1975-1980 to 3.4 in 1985-1990, an overall reduction of 10.5 per cent in 10 years, and this rate is expected to decline further to 3.3 in 1990-1995. Excluding Africa, fertility trends in the world show a visible convergence of period rates (figure 18).

220. In the more developed regions, many countries experienced below-replacement fertility for some years and fertility rates remained almost unchanged during the periods 1975-1985 and 1985-1990 and are expected to remain so until 1990-1995. However, increments have been observed in a number of countries in recent years (table 27). Conversely, in the less developed regions, fertility decline is expected to pursue its past downward trend, with TFRs falling from 4.6 to 3.9 during the periods 1975-1980 and 1985-1990, a total reduction of 15.2 per cent. As concerns

the least developed countries,[5] their fertility is showing signs of decline, falling from 6.6 to 6.0 births per woman, a reduction of about 7.6 per cent during the same time span.

221. At the regional level, the highest TFRs are observed in Africa, where fertility declined only from 6.6 to 6.3 births per woman between 1975-1980 and 1985-1990 and is not expected to reach 6.0 until 1990-1995. This very modest decline is a consequence of differing regional fertility trends (see table 27 and figures 21 and 22). In Eastern, Western, Northern and Middle Africa, TFRs exceeded 6 births per woman during 1975-1980. However, Northern and Southern Africa will contribute most to the overall decline. In Northern Africa, TFRs fell from an average of 6.0 to 5.1, a decline of 15 per cent;[6] and in Southern Africa from 5.2 to 4.5, a decline of 13.5 per cent, both between 1975-1980 and 1985-1990. By 1990-1995, the total percentages of decline are expected to reach 21.7 and 19.2 in those two regions, respectively (table 26). In Africa, Mauritius is the only country to have achieved below-replacement fertility (2.0 in 1985-1987). At the other extreme, a somewhat old fertility estimate for Rwanda (1978-1983) of 8.5 births per woman indicates that this country has the highest fertility rate in Africa (annex table A.2).

TABLE 27. TRENDS IN TOTAL FERTILITY RATES: MORE DEVELOPED REGIONS, 1985-1991

Country	*1985*	*1986*	*1987*	*1988*	*1989*	*1990*	*1991*
Asia							
Japan	1.74	1.69	1.67	1.64	1.57	1.54	1.54
Europe							
Eastern Europe							
Bulgaria	2.02	1.95	..	..	1.86	1.73	..
Czechoslovakia	2.06	2.02	1.98	2.02	1.95	1.96	1.92
German Democratic Republic[a]	1.76	1.72	1.75	1.67	1.56	1.40	..
Hungary	1.83	1.83	1.81	1.79	1.80	1.84	..
Poland	2.33	2.22	2.15	..	2.08	2.04	2.05
Romania	2.26	2.40	2.39	2.31	2.20	1.83	1.56
Northern Europe							
Denmark	1.45	1.48	1.50	1.56	1.62	1.67	1.68
Finland	1.64	1.60	1.59	1.59	1.71	1.78	1.80
Ireland	2.50	2.44	2.32	2.17	2.11	2.19	2.18
Norway	1.68	1.71	1.74	1.84	1.89	1.93	1.92[b]
Sweden	1.73	1.79	1.84	1.96	2.02	2.14	2.11
United Kingdom	1.79	1.77	1.82	1.84	1.85	1.84	1.82
Southern Europe							
Albania	3.26	3.11	3.16	3.03	2.96	3.03	..
Greece	1.68	1.62	1.52	1.52	1.50	1.42	1.40
Italy	1.41	1.34	1.32	1.34	1.29	1.31[c]	1.26
Portugal	1.70	1.63	1.56	1.53	1.48	1.50	1.42[b]
Spain	1.63	1.54	..	1.38	1.30	1.36[c]	1.28
Yugoslavia[d]	2.04	2.01	2.00	1.98	1.88	..	..
Western Europe							
Austria	1.48	1.46	1.44	1.46	1.46	1.45	1.50
Belgium	1.51	1.55	1.55	1.56	1.58	..	1.57
France	1.83	1.84	1.82	1.83	1.81	1.78	1.77
Germany, Federal Republic of[a]	1.29	1.35	1.38	1.40	1.39	..	1.35[b]
Luxembourg	1.40	1.44	1.41	1.54	1.52	1.62	1.60[b]
Netherlands	1.51	1.55	1.56	1.55	1.55	1.62	1.61
Switzerland	1.52	1.53	1.52	1.58	1.56	1.59	1.60
Northern America							
Canada	1.63	1.63	1.62	1.66	..	..	..
United States of America	1.84	1.83	1.86	1.93	2.01	..	..
Oceania							
Australia	1.89	1.87	1.85	1.84	1.89	..	..
New Zealand	1.93	2.02	2.03	2.09	2.10	..	..
USSR	2.46[e]	2.53[f]	2.53	2.45	2.34	..	..

Sources: For 1985-1989, *Patterns of Fertility in Low-fertility Settings* (United Nations publication, Sales No. E.92.XIII.11), annex I. For 1989-1991, Statistical Office of the European Communities, *Demographic Statistics, 1992: Population and Social Conditions,* Series 3C (Luxembourg, 1992); Eurostat, *Statistiques rapides: population et conditions sociales,* No. 2 (1992), table 2; and for Switzerland, data obtained from the Federal Statistical Office. For Albania, Ministry of Economy, *Statistical Yearbook of Albania* (Tirana, Drejtoria e Statistikes, 1991), table 42; for Japan, 1990, Institute of Population Problems, *Latest Demographic Statistics, 1992* (Tokyo, Ministry of Health and Welfare, 1992), table 5-8; for United States of America, Department of Health and Human Services, *Final Data from the National Center for Health Statistics,* Monthly Vital Statistics Report, vol. 39, No. 4, supplement (Hyattsville, Maryland, 1991), table 4.

[a]Data for periods prior to 3 October 1990 refer to the former States of the Federal Republic of Germany and the German Democratic Republic.

[b]Estimated by the Statistical Office of the European Communities (Eurostat).

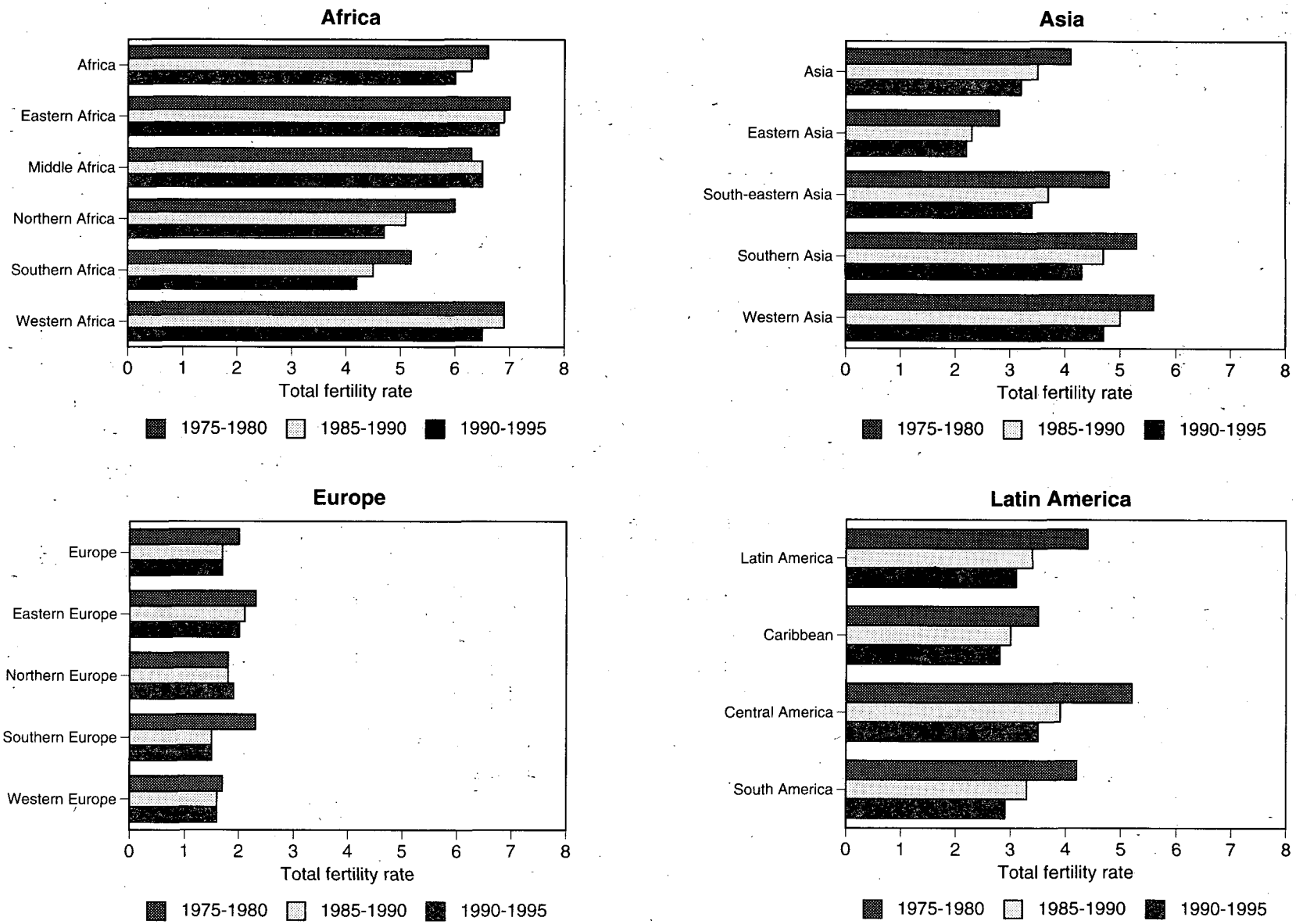
[c]Provisional data.

[d]Data for periods prior to 27 April 1992 refer to the former Socialist Federal Republic of Yugoslavia in terms of its boundaries as they existed prior to that date.

[e]Refers to 1985/86.

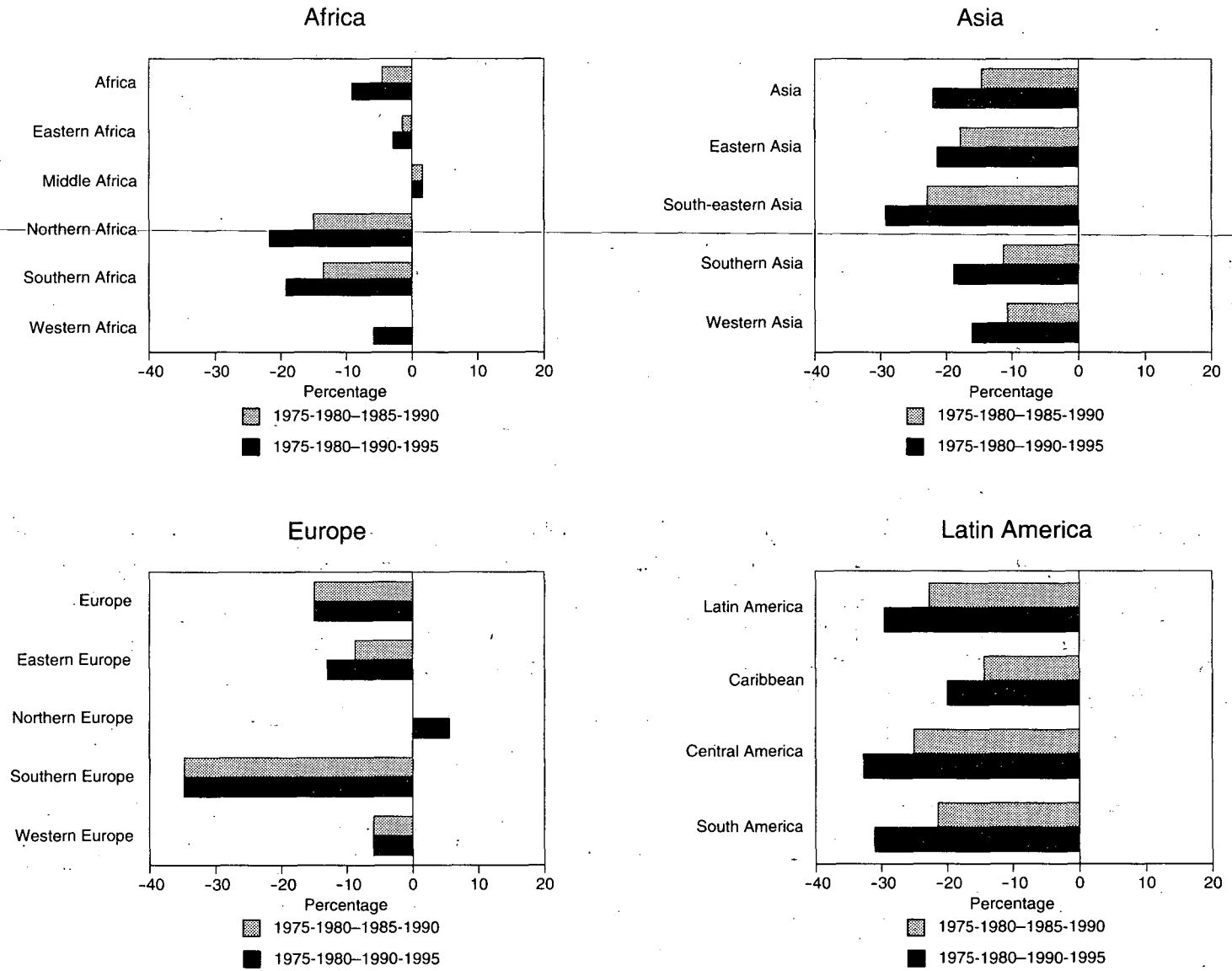
[f]Refers to 1986/87.

Figure 21. Total fertility rates: regions of Africa, Asia, Europe and Latin America, 1975-1980,[a] 1985-1990[a] and 1990-1995[b]



Source: table 26.
[a]Estimated.
[b]Medium-variant projections.

Figure 22. Percentage change in total fertility rates: regions of Africa, Asia, Europe and Latin America, 1975-1980–1985-1990[a] and 1975-1980–1990-1995[b]



Source: table 26.
[a]Estimated.
[b]Medium-variant projections.

222. In Asia, average fertility declined from 4.1 births per woman in 1975-1980 to 3.5 in 1985-1990, a reduction of 14.6 per cent. In Asia, also, regional differences underscore the variety of prevailing fertility patterns. During that period, the largest declines in fertility are seen in South-eastern Asia (22.9 per cent) and Eastern Asia (17.9 per cent); where rates have declined from 4.8 to 3.7 and from 2.8 to 2.3 births per woman, respectively. By 1990-1995, the total decline is expected to reach 29.2 and 21.4 per cent in those two regions. On the other hand, Western Asia, with a rate of 5.0 in 1985-1990, down from 5.6 in 1975-1980, continues to display the highest regional fertility in Asia and is expected to continue to do so in 1990-1995. Conversely, Eastern Asia, with an estimated average TFR of 2.3 in 1985-1990 and an expected rate of 2.2 in 1990-1995, not only displays the lowest Asian fertility but is the only region of the developing world that will most plausibly reach replacement level before the end of the twentieth century (table 26).

223. Data at the country level (see annex table A.2) show that four Asian countries or areas have already achieved below-replacement fertility. Around 1988-1990, the lowest TFR was observed in Hong Kong, with 1.3 births per woman. Japan and the Republic of Korea each had a rate of 1.6 and that of Singapore was 1.9. These very low levels, however, may also partially reflect changes in the timing of births. At the opposite end of the scale, the Lao People's Democratic Republic, Nepal and Saudi Arabia are characterized by TFRs exceeding 6.0 births per woman, even 7 in Oman. Data also show that the largest fertility declines occurred in Sri Lanka, where fertility fell by more than 5 per cent per annum between 1978-1982 and 1982-1987; and in Indonesia and Thailand, where reductions exceeding 4.0 per cent per annum were reported. Bangladesh, given its initial high fertility (6.4 in 1980) experienced also one of the most impressive fertility declines: 3.3 per cent per annum by the late 1980s. In the two most populous countries of the world, China and India, fertility rates were 2.3 in 1990 in the former and 4.1 in 1987 in the latter; but it is the demographic future of those two countries that is probably the most striking phenomenon yet to occur in Asia (see box 9).

224. In Latin America, the total decline between 1975-1980 and 1985-1990 is the largest in the less developed regions: 22.7 per cent. The regional average TFR fell from 4.4 to 3.4 births per woman between those two periods and is expected to fall further to 3.1 by 1990-1995, reflecting a total decline of almost 30 per cent by that latter date, the highest decline of all the less developed regions. Regional differences emerge, however, reflecting differences in cultural and socio-economic conditions (table 26).

225. In Central America, where fertility is highest, it remained comparatively high. The average fertility rate fell from 5.2 in 1975-1980 to 3.9 in 1985-1990 and projections suggest that the rate will remain at the 3.5 level by 1990-1995, the highest projected fertility in Latin America (table 26). Fertility rates below 5.0 are thus commonly observed and rates exceeding 5 births per woman are observed in the late 1980s only in Guatemala and Honduras (see annex table A.2). These changes correspond to a total fertility decline of 25 per cent for the first decade observed, the largest of the region, and this percentage is projected to reach 32.7 by 1990-1995 (table 26).

226. In the Caribbean, where fertility is lowest, 3.5 in 1975-1980, the decline was the smallest, 14.3 per cent by 1985-1990; and it not expected to exceed 20 per cent in total by 1990-1995 (table 26). In this region, only Haiti, with a fertility rate of 6 births per woman in 1988/89, evinces what

BOX 9. CHINA AND INDIA: POPULATION CHALLENGES

The Chinese effort to achieve faster social progress under conditions of rapid population growth was undertaken through both measures of economic development and the implementation of population policy measures directed to reducing population fertility. A twofold approach was taken: late-marriage measures were enacted in the 1980s; and a campaign to encourage the one-child family was supported by a wide-scope family planning programme. Such efforts led to a decline in the average total fertility rate (TFR) from a high 6.3 births per woman in 1955 to 2.3 in 1990, a reduction of almost 65 per cent. But the aim of curbing population size has been hampered by the very large proportions of women of reproductive age and by a female age structure very favourable to procreation resulting from past high fertility. In fact, the proportion of women aged 15-49 years in the total population actually rose from 24.2 per cent in 1950 to over 27.0 per cent in 1990.[a] As a result, despite the 62 per cent decline in total fertility, the crude birth rate fell by 50.5 per cent and the average annual number of births decreased by 5.2 per cent, declining from 25.4 million in 1950-1955 to about 24 million in 1985-1990. In addition, the decline in mortality also contributed to the increase in the size of the population from 10.8 million per annum in 1950-1955 to 16.6 million in 1985-1990. Although total fertility in China is expected to fall below the 2.1 births per woman by 1995-2000, the average annual number of births is expected to amount to 22.6 million during that period,[b] which may bring the total population of China to over 1.3 billion people in 1995-2000 and to 1.5 billion in 2050.[c]

The situation in India is even more striking: the average annual number of births in 1950-1955 was about 16.6 million, with TFR of 6.0 births per woman. A population policy intended to reduce fertility was instituted as early as the 1950s; however, the expected fertility objectives were partially achieved. By 1985-1990, TFR had declined to 4.2, but because of population increase and the growth momentum due to the large pool of women of reproductive age, the average annual number of births rose to 25 million in that same period, up from 16.6 million in 1950-1955. By 1995-2000, the fertility rate in India is expected to fall further to 3.5 births per woman; the annual number of births, however, is likely to continue to rise to 26.4 million per annum during that period. Even by 2020-2025, when fertility is expected to reach replacement level in this country, an average of 22.8 million births will occur annually[d]. Long-range projections even suggest that by 2050, the total population might reach 1.7 billion, exceeding the population of China by 200 million[e].

[a] "1992 revision of world population prospects: computerized data base and summary tables", computer printouts prepared by the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat.

[b] Ibid.

[c] *Long-range World Population Projections: Two Centuries of Population Growth, 1950-2150* (United Nations publication, Sales No. E.92.XIII.3).

[d] "1992 revision of world population prospects".

[e] *Long-range World Population Projections.*

appears to be unregulated reproductive behaviour (annex table A.2).

227. South America holds an intermediate position. The average TFR fell from 4.2 to 3.3 between 1975-1980 and 1985-1990, corresponding to a total reduction of 21.4 per cent, which is expected to reach 31.0 per cent by 1990-1995 (table 26). Only Bolivia and Paraguay still experienced high fertility, 4.7 or 5.1 births per woman, respectively, in the late 1980s (annex table A.2).

228. In the more developed regions fertility rates have followed a downward trend since the mid- or late 1960s (United Nations, 1992d). By 1975-1980, Europe with a rate of 2.0 and Northern America with 1.8 had the lowest regional average TFRs in the world, whereas the highest rate in the more developed regions, 2.3 births per woman, was observed in the former USSR. These overall trends changed somewhat in several regions during the 1980s.

229. In Northern America, fertility has been rising since the 1980s. Total fertility rose from 1.8 in 1975-1985 to 1.9 in 1985-1990 and is expected to reach a projected average of 2.0 in 1990-1995, resulting in a total fertility increase of 11 per cent since 1980-1985 (table 26). The United States of America has so far been the greatest contributor to this fertility increase (table 27).

230. In the former USSR,[7] fertility rose from 2.3 in 1975-1980 to 2.4 in 1985-1990, but, after peak levels (about 2.5) in 1986-1987, the rate is expected to fluctuate back to about 2.3 through the mid-1990s (tables 26 and 27). Since the formation of the newly independent States of the former USSR, the scope of fertility rates can be better appraised and their scope acknowledged. As can be seen from the following list, TFRs during 1985-1990 ranged from a below-replacement level of 2.0 births per woman in Belarus and Ukraine to 5.4 in Tadjikistan and three other States,[8] exceeding the 4.0 threshold:

Country	*Total fertility rate, 1985-1990*
Armenia	2.6
Azerbaijan	2.8
Belarus	2.0
Estonia	2.2
Georgia	2.3
Kazakhstan	3.0
Kyrgyzstan	4.0
Latvia0	
	2.1
Lithuania	2.1
Republic of Moldova	2.6
Russian Federation	2.1
Tadjikistan	5.4
Turkmenistan	4.6
Ukraine	2.0
Uzbekistan	4.4

231. In Europe, TFRs changed in various ways, even though, on balance, the overall level did not vary much. As a whole, Europe has continued to experience a fertility decline, with a downward shift in the average TFR from 2.0 births per woman in 1975-1980 to 1.7 in 1985-1990, thus falling even further below replacement-level fertility (table 26). At the regional level, however, a number of differences in fertility patterns emerge, the most striking being the continuing downward trend in one group of countries and a small upward trend in another group (table 27).

232. The downward trend took place primarily in Southern Europe, where fertility declined considerably. The rate fell from 2.3 in 1975-1980 to 1.5 in 1985-1990, a decline of 34.8 per cent (table 26). With TFRs of 1.3 in 1991, Italy and Spain experienced the lowest rates currently observed among the more developed countries. This decline in Italy and Spain corresponds perhaps to the delayed but similar experience of other European countries. Nevertheless, the steepness of the decline and the low level attained (1.3) in those two countries are unique (box 10).[9] Albania, which was reported to have a fertility rate of 3 births per woman in 1990, has the highest rate among the countries in the more developed regions (table 27).

233. The opposite situation is reported for Northern Europe, where average fertility stopped declining between 1975-1980 and 1985-1990; it is the only European region where average fertility is expected to rise, with a projected average of 1.9 births per woman in 1990-1995 representing a 5.6 per cent increase during that short period (table 26). As of 1991, country data (table 27) show that Ireland and Sweden will be the only two Northern European countries with fertility rates slightly above replacement level. Fertility in Ireland fluctuated at about 2.2 births per woman in 1991, but it actually declined in the preceding years, down from 2.5 in 1985. On the other hand, the rate of 2.1 in Sweden in 1991 is the result of a reversal in the fertility trend, with total fertility evolving from a below-replacement level in 1985 (1.7 births per woman) to above replacement (2.1) in the 1990s (table 27). The same data show that since 1985, fertility rates have also increased in Denmark, Finland, Norway and the United Kingdom of Great Britain and Northern Ireland.

234. In Western Europe, where fertility was already low, the rates declined further only by a modest 6 per cent, from an average of 1.7 in 1975-1980 to 1.6 in 1985-1990 (table 26). This small decline is, however, the result of a balance between an overall reduction in that region and small increments in a number of countries between 1985 and 1991, notably in Austria, Belgium, the Federal Republic of Germany, Luxembourg, the Netherlands and Switzerland (table 27).

235. Eastern Europe has also experienced substantial changes in recent decades. Until the mid-1970s, fertility in that region had remained comparatively higher than in the rest of Europe. In 1975-1980, the five-year average TFR was 2.3 births per woman, quite above the replacement level. By 1985-1990, this average had declined by almost 9 per cent, to 2.1 for the period 1985-1990 (table 26). Recent country data suggest that fertility rates continued their downward trend, and by 1990, they fell below the 2.1 replacement level in all Eastern European countries, and as low as 1.6 in Romania in 1991 and 1.4 in the former German Democratic Republic in 1990 (table 27).

2. *Average annual number of births*

236. The first reason to consider fertility issues in terms of number of births, as noted above, is that with declining mortality, numbers of births constitute the major component of the increase in population size. The second reason is that fertility rates do not always describe fertility levels in a manner that facilitates the formulation of population policy or programme objectives. As can be seen in figure 23, in the less developed regions, total fertility rates are declining but annual numbers of births remain high and often continue to increase, sometimes considerably, despite declining fertility rates. Hence, fertility rates, if considered alone, can be a

BOX 10. FERTILITY DECLINE IN ITALY AND SPAIN

Current total fertility rates (TFR) in Italy and Spain have recently fallen to extremely low levels. In 1965, TFR in Italy was 2.60 births per woman and in Spain 2.96.[a] But by 1991, the fertility rates of these two countries were the lowest in the world, having reached 1.26 and 1.28 births per woman, a total reduction of over 51 and 58 per cent, respectively. Nevertheless, one should bear in mind that the total fertility rate, which is the fertility indicator used to measure those changes, may be strongly affected by changes in the timing of births. Although period changes reflect a certain demographic reality, they do not necessarily describe the final parity of a given female population. In Italy, women of the 1939 cohort, who reached age 50 in 1989, are reported to have a cohort TFR of 2.3 births per woman as opposed to the period rate of 1.3 for that same year; likewise, the rate of the 1939 cohort in Spain is 2.6 births per woman.[b]

The sharp decline in fertility rate and especially the low levels attained are not easily accounted for. Since the fertility decline in the Northern and Western European countries was so widespread, one can hypothesize that the main determinants of the decline in Italy and Spain were common to those of these two regions, but the onset of the decline was delayed in the two Southern European countries. Given this assumption, the question is how to account for the delay? The most common proximate determinant of delayed fertility when most births are legitimate (as is generally the case in Southern Europe) is delayed nuptiality. But census data from 1951 to 1981 show that the intercensal singulate mean ages at marriage in Italy and Spain declined and the proportions of women ever married by age 50 increased during that period.[c] If one turns to indirect effects, one can hypothesize that, because of historical circumstances, the shift from high to low fertility in Southern Europe (and notably in Italy and Spain) was slower because conditions changed later in those two countries than in most of the Northern and Western European countries. When they emerged, the effect of those changes on family size norms was further hampered by the strength of the traditional family values and the pronatalist religious belief which generally characterized these two countries. When the social and legal enforcement of traditional values receded, a catch-up effect took place. For instance, by the late 1980s, the fertility rate at ages 20-24 fell to 59.8 and 65.8 per 1,000 in those two countries, respectively; and at ages 25-29, the decline in TFR since 1965 was almost twice as large as that experienced by most of the other Western and Northern European countries.[d] Portugal and Greece may well experience the same evolution in the future.

In Italy and Spain, both period and cohort rates have thus declined sharply. The fertility decline of the cohorts of the late 1940s in Italy and of the 1950s in Spain are projected to fall below generation-renewal level when those cohorts reach age 50.[e] On the other hand, as changes in the timing of births stabilizes, period fertility rates are expected to swing upward, as is already the case in some countries, and to converge towards the cohort rate level.

[a] *Patterns of Fertility in Low-fertility Settings* (United Nations publication, Sales No. E.92.XIII.11), table 1.

[b] Council of Europe, *Cohort Fertility in Member States of the Council of Europe*, Population Studies, No. 21 (Strasbourg, 1990), table 6.

[c] *Patterns of First Marriage: Timing and Prevalence* (United Nations publication, Sales No. E.91.XIII.6), annex table A.5.

[d] Ibid., tables 11 and 12.

[e] Council of Europe, op.cit; Jean-Paul Sardon, "Le remplacement des générations en Europe depuis le début du siècle", *Population* (Paris), vol. 45, No. 6 (novembre-décembre 1990), table 5.

misleading indicator for programme planning purposes.[10] Thus, in order to base population policy measures on fertility trends, it is important to take into consideration the annual number of births as well.

237. As estimates show (table 28), the average annual number of births in the world will increase from about 120.8 million in 1975-1980 to an estimated 136.8 million in 1985-1990, an increase exceeding 13 per cent. The projected total increment since 1975-1980 will rise to 19.0 per cent or 143.7 million births by 1990-1995. This increase, of course, represents the compounding effect of the situation in the less developed and the more developed regions. In the less developed regions alone, the increment exceeded 15 per cent between 1975-1980 and 1985-1990 and is projected to reach 22 per cent by 1990-1995. This represents a shift from about 103.4 million births per annum, on average, in 1975-1980 to 119.2 million in 1985-1990, and to 126.3 million in 1990-1995.

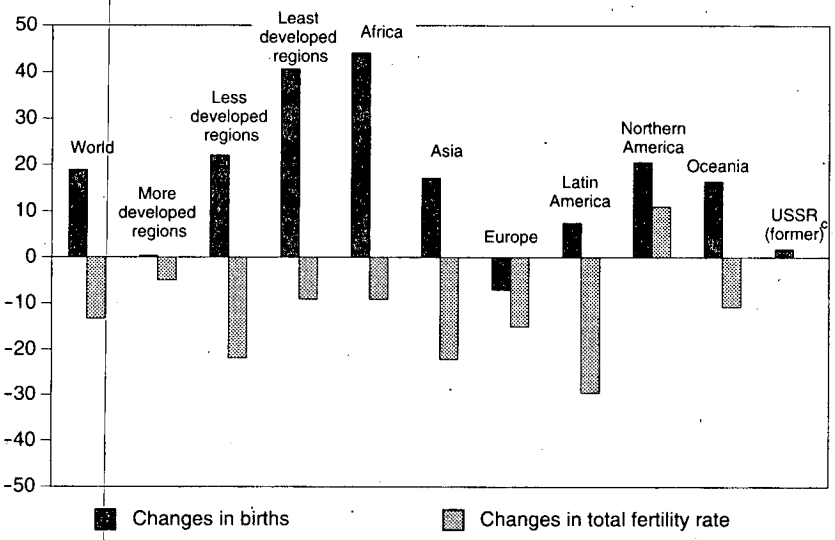
238. In the more developed regions as a whole, the average number of births fluctuated from 17.3 million per annum in 1975-1980 to 17.6 million per annum in 1985-1990 and is projected to fall back to 17.4 million in 1990-1995, suggesting that the birth gap between the more developed and the less developed regions will continue to increase. Indeed, in 1975-1980, of the world total average annual number of births, 85.7 per cent were taking place in the less developed regions; by 1990-1995, this percentage is projected to rise to 88 per cent.

239. The largest increase in average number of births is seen in the least developed countries, where an upward trend produced 17.2 million births per annum during 1975-1980, and 21.2 million during 1985-1990. The figure is projected to reach 24.1 million per annum in 1990-1995, corresponding to increments of 23.7 per cent up to 1985-1990 and to more than 40 per cent by 1990-1995. Thus, countries that would benefit most from a smaller population size experience the largest increments in terms of births.

240. Situations vary, however, between and within world regions. In the less developed regions, birth increments were largest in Africa, lowest in Latin America and intermediate in Asia. In Africa, the annual number of births rose, on average, from 20.7 million per annum in 1975-1980 to 26.6 million in 1985-1990 and is projected to rise to 29.8 million in 1990-1995, an increase of 28.9 per cent up to 1985-1990 and of 44.1 per cent by 1990-1995. Thus, the contribution of Africa to the total number of births in the world would increase from 17.1 per cent during the earliest period to almost 21 per cent in 1990-1995 (figure 24). Up to 1985-1990, increments were highest in Eastern, Middle and Western Africa, where they exceeded 30 per cent, and lowest in Northern and Southern Africa, where they fluctuated by about 15 per cent. When projected to 1990-1995, these increments will exceed 50 per cent in the three former regions and 20 per cent in the two latter regions (table 28).

241. In Asia, the average annual number of births during the same time periods increased by only about 12 per cent up to 1985-1990 and will rise to 17 per cent when projected to 1990-1995, as compared with 29 and 44 per cent, respectively, in Africa. But given the size of the Asian population,

Figure 23. Comparison of percentage change in total fertility rates and in average annual number of births: major areas, 1975-1980[a] and 1990-1995[b]



Sources: tables 26 and 28.
[a]Estimated.
[b]Medium-variant projections.
[c]Not including Estonia, Latvia and Luthuania, which are included in Europe.

TABLE 28. ESTIMATED AND PROJECTED AVERAGE ANNUAL NUMBER OF BIRTHS; WORLD, MAJOR AREAS AND REGIONS, 1975-1980 AND 1990-1995

(thousands)

Major area and region	Average annual number				Percentage change	
	1975-1980	1980-1985	1985-1990	1990-1995	1975-1990–1985-1990	1975-1980–1990-1995
	Estimated			Projected[a]	Estimated	Projected[a]
World total	120 757	129 238	136 832	143 725	13.3	19.0
More developed regions	17 330	17 551	17 595	17 396	1.5	0.4
Less developed regions	103 427	111 687	119 237	126 328	15.3	22.1
Least developed countries	17 165	19 031	21 232	24 148	23.7	40.7
Africa	20 674	23 374	26 647	29 794	28.9	44.1
Eastern Africa	6 592	7 342	8 700	10 033	32.0	52.1
Middle Africa	2 286	2 652	3 055	3 540	33.6	54.9
Northern Africa	4 173	4 625	4 865	5 090	16.6	22.0
Southern Africa	1 201	1 306	1 371	1 473	14.2	22.6
Western Africa	6 422	7 448	8 656	9 656	34.8	50.4
Asia	73 287	78 010	81 994	85 872	11.9	17.9
Eastern Asia	23 844	24 778	26 736	27 662	12.1	16.0
South-eastern Asia	12 066	12 319	12 644	12 954	4.8	7.4
Southern Asia	33 904	37 021	38 272	40 499	12.9	19.5
Western Asia	3 474	3 893	4 342	4 757	25.0	36.9
Europe	7 000	6 678	6 449	6 506	−7.9	−7.1
Eastern Europe	1 673	1 543	1 426	1 379	−14.8	−17.6
Northern Europe	1 158	1 188	1 246	1 286	7.6	11.1
Southern Europe	2 152	1 847	1 653	1 644	−23.2	−23.6
Western Europe	2 017	2 099	2 124	2 197	5.3	8.9
Latin America	1 1016	11 623	11 751	11 846	6.7	7.5
Caribbean	742	771	817	841	10.1	13.3
Central America	3 067	3 256	3 410	3 579	11.2	16.7
South America	7 208	7 598	7 523	7 427	4.4	3.0
Northern America	3 704	4 028	4 285	4 470	15.7	20.7
Oceania	461	474	499	537	8.2	16.5
USSR (former)[b]	4 611	5 047	5 203	4 695	12.8	1.8

Source: World Population Prospects: The 1992 Revision (United Nations publication, Sales No. E.93.XIII.7).
[a]Medium variant.
[b]Not including Estonia, Latvia and Lithuania, which are included in Northern Europe.

a 12 per cent increase is expected to produce 85.9 million births per annum during 1990-1995, compared with 82 million in 1985-1990 and 73 million in 1975-1980, which corresponds to about 60 per cent of the total number of births in the world (figure 24). The largest increment, 25 per cent, took place in Western Asia during the initial decade and is expected to reach 37 per cent in 1990-1995. In the other regions, increments were about 12-13 per cent, except in South-eastern Asia, where it remained below 5 per cent by 1985-1990. China and India, which encompass the largest population of Asia, will also contribute an increasing number of births to the Asian population (see box 9).

242. Latin America experienced the smallest increase in annual average number of births, 6.7 from 1975-1980 to 1985-1990 and 7.5 per cent when projected to 1990-1995. The continuation of the fertility transition experienced in South America and the increase in use of contraceptive methods (see section B) in this region account largely for this levelling-off in the number of births. In the Caribbean and Central America, the increments fluctuate at about 10-11 per cent, whereas in South America, the small increase of 4 per cent is expected to fall to 3 per cent by 1990-1995. South America will be the only region of the developing world where the average annual number of births is slightly decreasing (table 28).

243. In the more developed regions, a decline in number of births per annum is found in a larger number of regions. Overall, the annual average number of births in Europe fell by about 8 per cent from 1975-1980 to 1985-1990. But the declines in Eastern and especially in Southern Europe were much more pronounced: reductions of 15 and 23 per cent were observed in those two regions, respectively, counterbalanced in part, however, by an increase of 7.6 per cent in Northern Europe and 5.3 per cent in Western Europe.

244. In the other developed regions, the situation is as follows. In the former USSR, the annual number of births increased by 12.8 per cent between 1975-1980 and 1985-1990 but is projected to fall from 5.2 million per annum in 1985-1990 to 4.7 million by 1990-1995. Northern America is the only major area to experience a substantial upward trend in annual births during the period reviewed. The annual average increased from 3.7 million in 1975-1980 to 4.3 million in 1985-1990 and is expected to further increase to 4.5 million by 1990-1995, an overall total increment of more than 20 per cent over the 15-year period.

245. In the light of these various trends (and assuming the medium variant for the past five projected years), the shares in the total average annual number of births in the world contributed by Europe and the former USSR are expected to decline between 1975-1980 and 1990-1995, from 5.8 to 4.5 per cent and from 3.8 to 3.3 per cent, respectively. The relative contribution of Northern America to the world total will remain constant. The combined share of annual births of those three more developed regions to the world total number of births will decline from 12.7 to 10.9 per cent during the same period (figure 24).

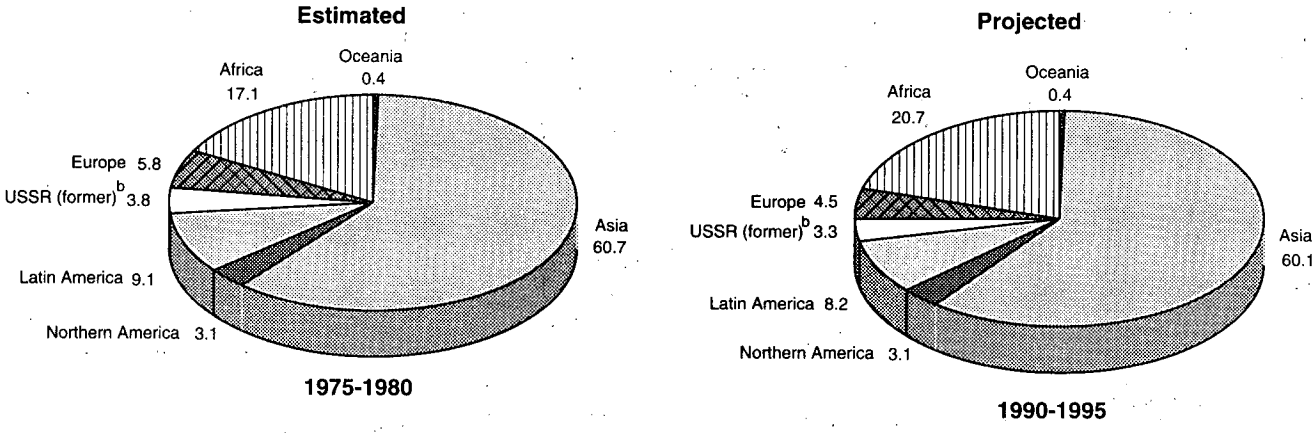
3. *Number of women of reproductive age*

246. As shown above, the annual number of births continues to increase in the less developed regions where fertility rates have been decreasing for years. The main reason for these opposite trends is the role played by the increase of population and, hence, of the number of women of reproductive age.[11] High fertility rates generate large cohorts of women of reproductive age that produce large numbers of births (especially under conditions close to natural fertility), which in turn generate large cohorts of women of reproductive age. This cycle continues until declining fertility rates progressively reduce the size of the next generation of cohorts of women.

247. Future trends in the number of women of reproductive age are thus particularly important for policy and population planning purposes because, given a specific pattern of age-specific fertility rates, they are indicative of the number of births expected in a given year under unchanged conditions and also represent both the potential population at risk of procreation and the potential demand for contraception when family planning programme objectives need to be set.[12] Sometimes the net reduction observed in a country may underestimate the role of the family planning programmes, notably when a substantial reduction in the number of births resulting from the programme is compensated by an increase in births resulting from an increment in women of reproductive age (see box 11).

248. Tables 29 and figures 25-27 describe changes in the number of women of reproductive age at the world and

Figure 24. Percentage contribution of births by major areas to total world number of births, 1975-1980 and 1990-1995[a]



Source: Derived from table 28.

[a]Medium variant.

[b]Not including Estonia, Latvia and Lithuania, which are included in Europe.

regional levels between 1980 and 2000. Because this category of women is perceived as representing a fertility potential of the future,[13] estimates extending to the year 2000 are presented here in order to underscore both the magnitude of this potential and the expected trends in the short term.

249. Based on the medium-variant projections, it is expected that the world will have about 48 per cent more women of reproductive age in 2000 than it had in 1980. This figure will reach close to 62 per cent in the less developed regions, compared with only 10 per cent more in the more developed regions. During these two decades, Africa will experience the largest increments (81.9 per cent), followed by Latin America (61.7 per cent) and Asia (55 per cent). However, in terms of numbers at the world level, Asia will contribute the largest share of women of this age category, a share which will increase from 57 to over 60 per cent between 1980 and 2000. Africa, with only 10 per cent of the total number of women aged 15-49 years in 1980, will increase its share to 12.6 per cent. In Latin America, the relative increment in contribution will be small, less than 1 percentage point. Conversely, in the more developed regions, the contribution of the various regions in the number of women of reproductive age to the world total is projected to decline everywhere between 1980 and 2000: in Europe, from 11.3 to 8.9 per cent; in Northern America, from 6.1 per cent to 4.9 per cent; and in the former USSR, from 6.3 to 4.8 per cent (table 29 and figures 25 and 26).

250. Examining the individual world regions, several observations may be made. The expected increases between 1980 and 2000 among the different African regions range from 73.2 per cent in Southern Africa to 86.2 in Western Africa (table 29 and figure 27). These are considerable increments given the short span of time.[14]

251. In Asia, regional differences are much more pronounced than in Africa. Eastern Asia, which experienced declining fertility for several decades, is expected to have a smaller increment of women aged 15-49 years (about 42 per

BOX 11. THE EFFECT OF FAMILY PLANNING PROGRAMMES

An evaluation of the fertility impact of the family planning programme of Thailand for 1975 concluded that had fertility remained constant at the 1970 levels, the total number of births in 1975 would have been higher by 224,400 births. The question was: what factors could account for the 224,400 births that did not occur in 1975? A decomposition of the crude birth rate of 1975 showed that, given the foregoing assumption, the decline in the proportion of married women accounted for 73,200 fewer births and the decline of marital fertility attributable to the use of a birth regulation method accounted for another reduction of 199,700 births, of which about 170,000 were estimated to be due directly or indirectly to the family planning programme. On the other hand, changes in the percentage of women of reproductive age in the total population and in the age structure of those women accounted for an increase of 23,000 births.[a]

A similar evaluation was undertaken for the number of births in Sri Lanka in 1981. It was estimated that under 1971 fertility conditions, 453,500 births would have occurred in 1981, compared with the 417,700 births observed. Thus, 35,800 births did not occur. It was estimated that 26,100 births did not occur because of lower proportions of married women and 54,000 births were prevented by birth regulation methods, while the combined effect of the percentage of women in total population and the age structure of women of reproductive age would have added 49,600 births in that year.[b]

The implications of such analyses are twofold. First, the effect of the proportion of women of reproductive age on the number of births may be considerable when past fertility was high, even under conditions of declining fertility rates. Secondly, when the age composition and structure of the female population are favourable to procreation, family planning programmes may have latent effects; even if the decline in the total number of births in a given year is not as low as expected, this number would have been much higher had the number of births averted by the family planning programme not compensated for the increase in births resulting from the effect of women of reproductive age. A corollary of these observations is that it is imperative that the demographic impact of family planning programmes be regularly assessed in order to emphasize their importance in current national trends in population growth.

[a] *Evaluation of the Impact of Family Planning Programmes on Fertility: Sources of Variances*, Population Studies, No. 76 (United Nations publication, Sales No. E.81.XIII.9), tables 319 and 323.

[b] *Studies to Enhance the Evaluation of Family Planning Programmes*, Population Studies, No. 87 (United Nations publication, Sales No. E.84.XIII.9), table 147.

TABLE 29. ESTIMATED AND PROJECTED NUMBER OF WOMEN AGED 15-49 YEARS AND PERCENTAGE CHANGE, WORLD, AND MAJOR AREAS AND REGIONS, 1980-2000

(Thousands)

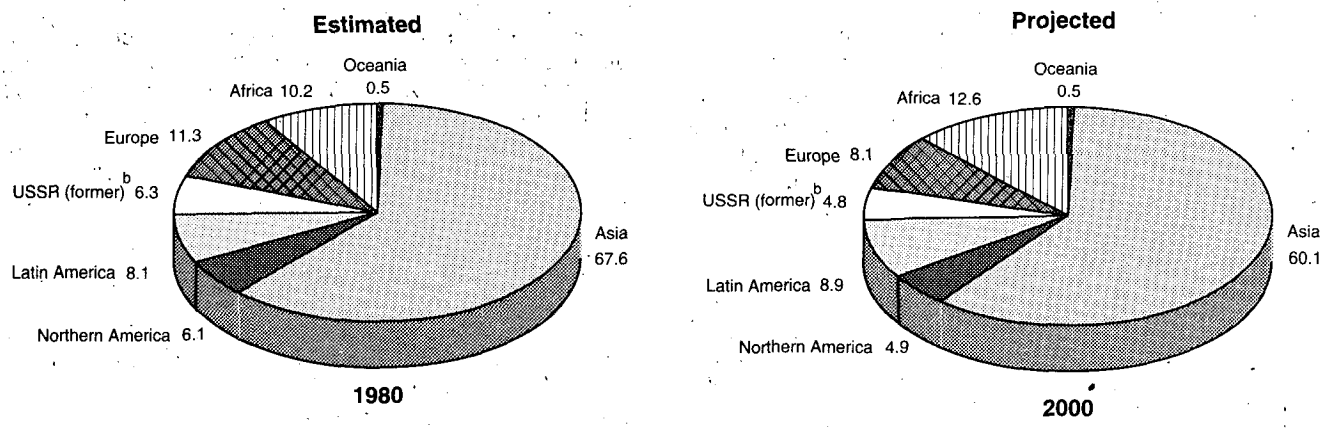
Regions	Number of women aged 15-49 years		Percentage increase 1980-2000
	1980 (estimated)	2000[a] (projected)	
World total	1 061 195	1 570 021	47.9
More developed regions	286 478	315 841	10.2
Less developed regions	774 717	1 254 181	61.9
Africa	108 756	197 860	81.9
Eastern Africa	32 516	59 152	81.9
Middle Africa	11 872	21 275	79.2
Northern Africa	24 557	44 331	80.5
Southern Africa	7 964	13 793	73.2
Western Africa	31 848	59 309	86.2
Asia	609 159	944 181	55.0
Eastern Asia	283 552	403 086	42.2
South-eastern Asia	86 729	141 892	63.6
Southern Asia	216 915	358 898	65.5
Western Asia	21 962	40 305	83.5
Europe	119 508	127 679	6.8
Eastern Europe	22 812	24 828	8.8
Northern Europe	21 161	22 152	4.7
Southern Europe	33 867	36 624	8.1
Western Europe	41 668	44 075	5.8
Latin America	86 305	139 577	61.7
Caribbean	7 132	10 025	40.6
Central America	20 246	36 684	81.2
South America	58 927	92 868	57.6
Northern America	65 225	77 593	19.0
Oceania	5 552	7 773	40.0
USSR (former)[b]	66 693	75 366	13.0

Source: World Population Prospects: The 1992 Revision (United Nations publication, Sales No. E.93.XIII.7).

[a] Medium variant.

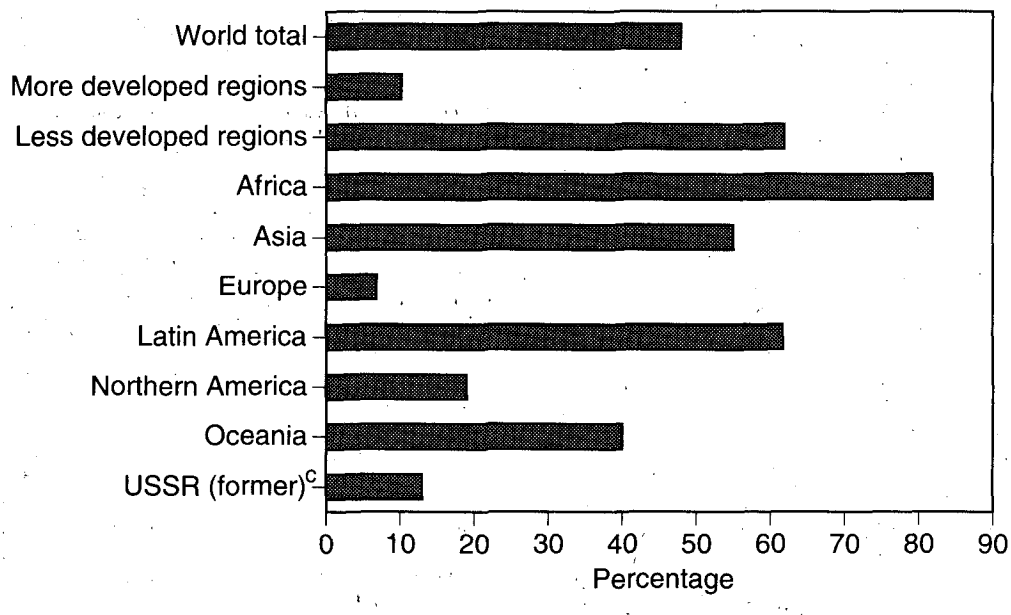
[b] Not including Estonia, Latvia and Lithuania, which are included in Northern Europe.

Figure 25. Percentage distribution of number of women aged 15-49 years, by major area, 1980[a] and 2000[b]



Source: Derived from table 29.
[a]Medium variant.
[b]Not including Estonia, Latvia and Lithuania, which are included in Europe.

Figure 26. Percentage increase in number of women aged 15-49 years: major areas, 1980[a]-2000[b]



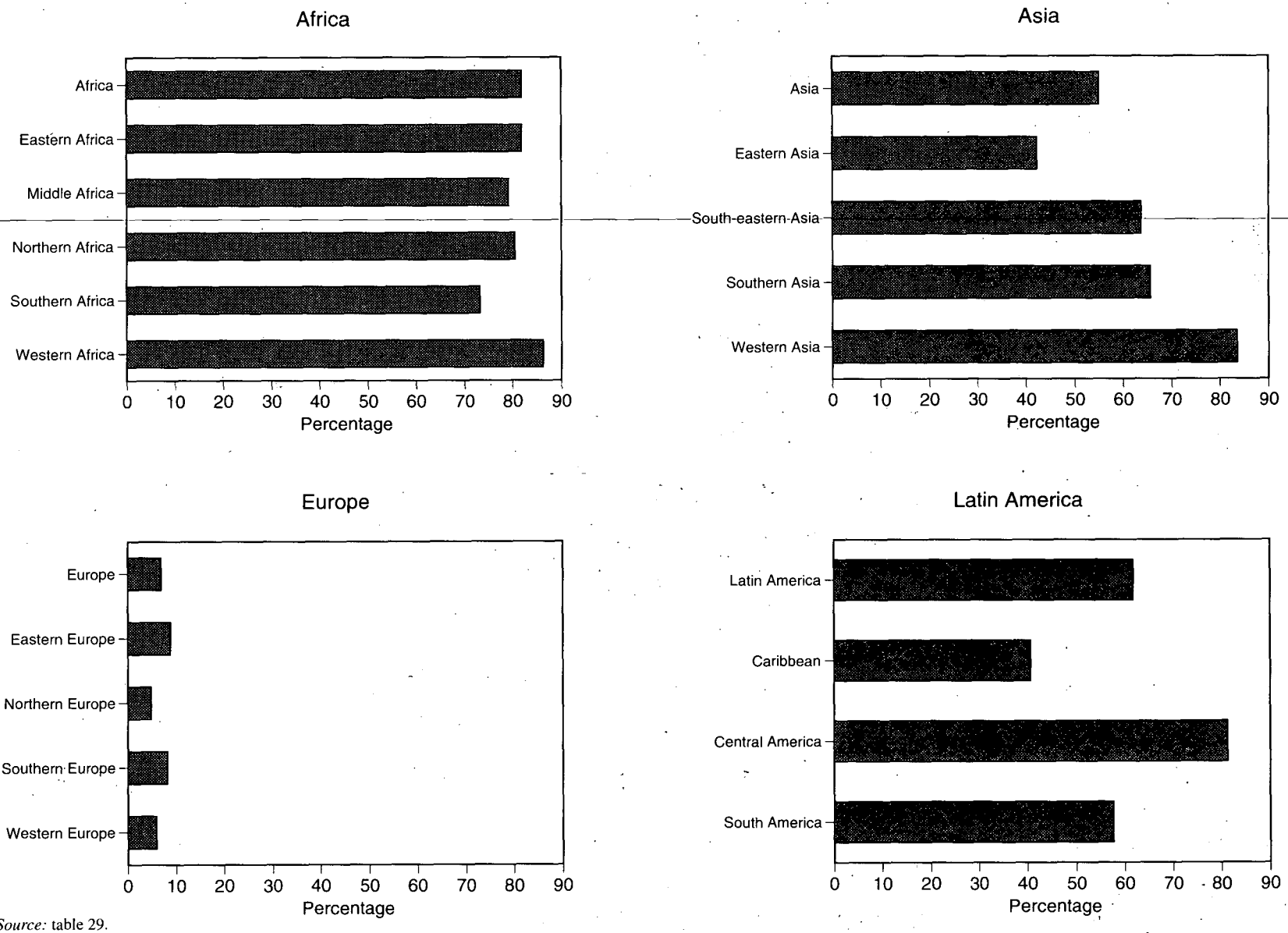
Source: table 29.
[a]Estimated.
[b]Medium-variant projections.
[c]Not including Estonia, Latvia and Lithuania, which are included in Europe.

cent) than Western Asia, where the number of women of reproductive age is expected to be 83 per cent higher in 2000 than in 1980. In South-eastern Asia and Southern Asia, the increments are expected to be 63.6 and 65.5 per cent, respectively, thus most likely maintaining until the end of the century an upward trend in annual number of births, despite the observed decline in fertility rates.

252. In Latin America, the number of women of reproductive age is projected to increase by more than 60 per cent between 1980 and 2000, and by more than 80 per cent in Central America alone. This rise is somewhat smaller in South America, 57 per cent, but is still likely to slow the decline in fertility rates in this region.

253. Considerable differences exist between the less developed and the more developed regions. Although the number of women of reproductive age in the former regions is expected to increase by 61.9 per cent between 1980 and 2000, that of the latter regions is expected to increase by only 10.2 per cent. Europe, with a 6.8 per cent increase, displays the smallest increment, whereas Northern America, with a comparatively high 19 per cent increment during the same period, has the greatest fertility potential among the more developed regions (table 29 and figure 26). With a 13 per cent increase, the former USSR holds an intermediate position among these regions, but with a slow declining fertility, the annual number of births is likely to increase in the future.

Figure 27. Percentage increase in number of women aged 15-49 years: regions of Africa, Asia, Europe and Latin America, 1980[a]–2000[b]



Source: table 29.
[a]Estimated.
[b]Medium-variant projections.

254. The main features of these changes in the number of women of reproductive age is that given their considerable increase in sub-Saharan Africa, these regions have the greatest population fertility potential in the world and may well be those with the greatest difficulty in keeping population numbers consistent with socio-economic prospects. This situation is in fact compounded not only by the continuous high fertility rates prevailing in this part of Africa but by the slow progress in family planning practice observed until recent years (see section B, on contraception). On the other hand, the weight of Asia in world population will increase despite its declining fertility rates because of its falling mortality and the millions of births added each year. The mere size of the female population of reproductive age accounts for this large number. China and India, in particular, will be the largest contributors to world population, and in the long term, it is expected that the population of India will exceed that of China (see box 9). Thus, it has been projected that, assuming that fertility ultimately stabilizes at replacement level, the world population will grow from 6.3 billion in 2000 to 11.2 billion by the year 2100 (United Nations, 1992c). A combination of substantial social change and socio-economic development, combined with successful family planning programmes, will eventually slow population growth.

B. CONTRACEPTION

255. Rising use of contraception is the main proximate determinant of the ongoing fertility decline in the developing countries. In the early 1960s, when TFR in the less developed regions averaged 6.1 children per woman, the level of contraceptive prevalence—current use among couples with the woman of reproductive age—was probably under 10 per cent in the developing countries (United Nations, 1989; Bongaarts, 1984). According to recent surveys discussed below, contraceptive prevalence in those regions had risen to 53 per cent by 1990 and, assuming a continuation of recent trends, is estimated to be 55 per cent in 1993.

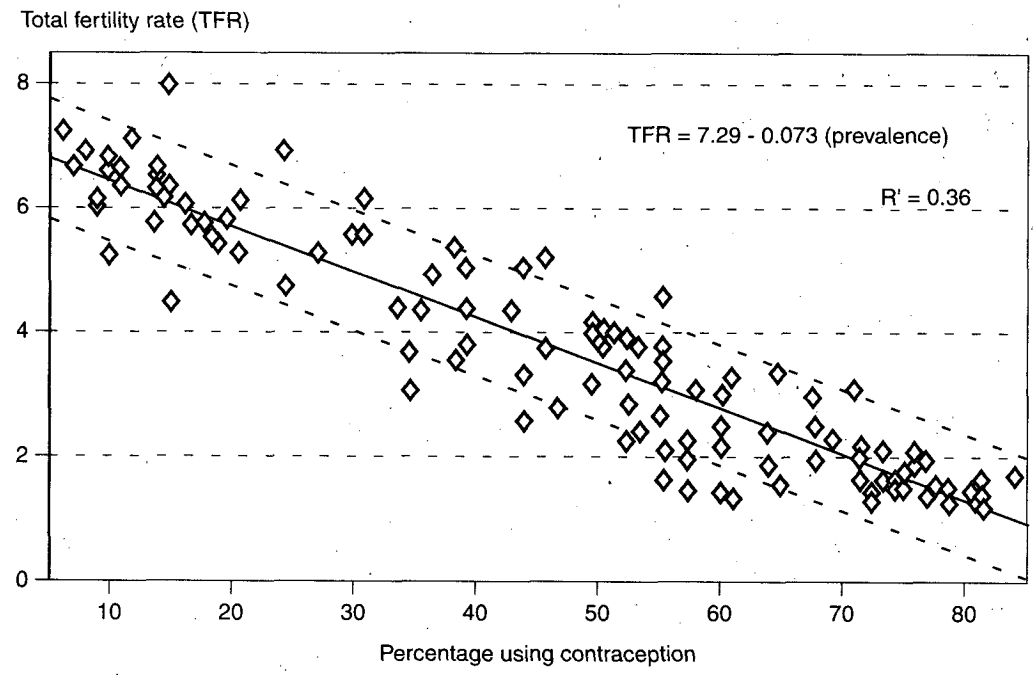
256. Although other factors, such as marriage patterns, breast-feeding and abortion, also have a large impact on fertility levels, the cross-national relationship between contraceptive prevalence and fertility is remarkably strong. Approximately four fifths of the countries have TFR levels within one child of the regression line shown in figure 28 and, in a statistical sense, contraceptive prevalence explains 86 per cent of the cross-national variation in fertility.

257. This section presents an overview of contraceptive prevalence at the most recent available date for both developed and developing countries and a discussion of trends in prevalence in the recent past. Trends during the 1980s in the availability of family planning methods in developing countries are also summarized, drawing on a new evaluation of family planning programme effort (Mauldin and Ross, 1991), and the section concludes with a brief discussion of the demand for family planning.

258. It should be noted, however, that many important topics related to family planning cannot be covered in this brief review. Family planning involves issues of human rights and health, questions of government and donor policy and funding priorities and difficult practical issues of service delivery and evaluation of the quality of services. Family planning has assumed major importance in policy-oriented discussions of population and health; and, as a reflection of this, the subject was discussed in three of the Expert Group Meetings convened in preparation for the International Conference on Population and Development, which took place at Cairo, Egypt, from 5 to 13 September 1994:

(*a*) The Expert Group Meeting on Population Policies and Programmes (Cairo, Egypt, 12-16 April 1992) discussed government and donor policies towards family planning and the funding of family planning and other population programmes (see United Nations, 1993b);

Figure 28. Total fertility rate by contraceptive prevalence



NOTE: Dotted lines span a range of one child around the central regression line relating contraceptive prevalence to the total fertility rate.

(*b*) The Expert Group Meeting on Population and Women (Gaborone, Botswana, 22-26 June 1992) gave particular attention to human rights and health aspects of family planning, adolescents as a group in need of services, the need for greater involvement of women in programmes—especially in policy-making and management positions—the continuing need for contraceptive methods with improved safety, efficacy and acceptability; and the need for greater attention to the user's perspective in evaluating adequacy of services (E/CONF.84/PC/6);

(*c*) The Expert Group Meeting on Family Planning, Health and Family Well-Being (Bangalore, India, 26-30 October 1992) also considered some of the above-mentioned issues, but in a context allowing for an in-depth discussion of questions concerning service delivery and demand for services, the status of research towards improved methods, contraceptive efficacy and safety; and under-served population groups, including the poor, rural and uneducated sectors of the population, men and adolescents (E/CONF.84/PC/7).

1. *Levels of contraceptive use*

259. By 1990, the world average level of contraceptive prevalence was 57 per cent of couples with the woman of child-bearing age. The level is 72 per cent in the more developed regions and 53 per cent in the less developed regions. Since contraceptive prevalence has been rising in the developing countries, it is likely that the level of use in the developing countries in 1993 was approximately 55 per cent.

260. Based on recent data, the level of current contraceptive use is estimated to be 58 per cent in Asia and Latin America, but only 18 per cent in Africa. The high level of use in China has a large effect on the average for the developing countries as a whole; the average is 40 per cent, excluding China.

Data availability

261. The contraceptive prevalence levels discussed here are based on surveys of women of child-bearing age (and occasionally surveys of husbands of such women). The data pertain to women in a marital union, including consensual unions, where possible. The countries and areas with information on contraceptive prevalence for 1975 or later account for approximately 90 per cent of the total number of married women aged 15-49 years, about 95 per cent for the less developed and 70 per cent for the more developed regions. In most cases, the most recent measure of contraceptive prevalence is for dates during the 1980s, with the average falling in 1990 for the developing countries and 1987 for the more developed regions.[15]

262. Data availability has increased recently, particularly in Africa. Data on contraceptive use are available for roughly 90 per cent of the population of Africa, up from about one half in the early 1980s (United Nations, 1984). Many of these recent surveys were conducted as part of the Demographic and Health Surveys (DHS) programme.

Africa

263. In over half of the African countries listed in annex table A.3, levels of contraceptive use are under 15 per cent. Moreover, in 17 of the 36 African countries with data available, prevalence levels of clinic and supply methods are 5 per cent or less. Excluding the islands of Mauritius and Réunion, where contraceptive prevalence exceeds 65 per cent and fertility is low, levels of contraceptive use tend to be higher in Northern and Southern Africa than in the remaining regional groups. In Algeria, Egypt, Tunisia and South Africa, approximately half of couples are using contraception; and in Botswana, Kenya, Morocco and Zimbabwe, at least one third.

Latin America

264. Most of the countries in Latin America have from moderate to high levels of contraceptive use. In Haiti, however, 10 per cent of women were using contraceptives in 1989. Levels of use in other countries range from 23 per cent in Guatemala to 65-75 per cent in Brazil, Colombia, Costa Rica, Cuba, Jamaica and Puerto Rico.

Asia

265. Developing countries in Asia have levels of contraceptive prevalence ranging from some of the lowest to some of the highest in the world. Fewer than 10 per cent of couples are using contraception in Oman and Yemen, and fewer than 15 per cent in Iraq and Pakistan. At the other extreme, Eastern Asian countries, including China, have levels of contraceptive prevalence over 70 per cent, as does Singapore in South-eastern Asia. Prevalence levels are also more than 60 per cent in the Islamic Republic of Iran, Thailand, Sri Lanka and Turkey. Several of the large Asian countries with low levels of economic development have achieved from moderate to high levels of contraceptive use: 40 per cent in Bangladesh; 43 in India; 50 in Indonesia; 53 in Viet Nam; and 62 in Sri Lanka.

Least developed countries

266. Contraceptive prevalence is under 20 per cent in most of the least developed countries (see figure 29). Bangladesh, Botswana, Lesotho, Nepal and Rwanda have higher levels of current use, in the range of 21-40 per cent.

More developed regions

267. In all the developed countries for which data are given in annex table A.3, the level of current contraceptive use is over 50 per cent; and in 20 of the 26 developed countries, the level is 70 per cent or more. Particularly for Eastern and Southern Europe, the most recent information available often dates from the late 1970s and may understate the current level of use. In the more developed regions, however, the most notable recent trends have tended to be in the types of contraceptives employed rather than in the overall level of use. The available information for the former USSR suggests a lower level of contraceptive practice than is found in other developed countries, but the data are not comparable to those for other countries (see box 12).

2. *Trends in contraceptive use*

Developing countries

268. Most developing countries with trend data available show a substantial increase in contraceptive use. Annex table A.4 shows the change in prevalence between an earlier survey and the most recent one; the earlier survey is, on average, about 10 years before the most recent.[16]

269. Prevalence increased by at least 1.0 percentage point per annum—or 10 points over a decade—in 65 per cent of the developing countries and by at least 2.0 points annually in approximately 15 per cent of the countries. The overall increase in contraceptive prevalence for the developing countries listed in annex table A.4 is 1.4 percentage points per annum, when weighted by the number of married women of reproductive age. The averages by region are 0.9 percentage point annually for Africa, 1.7 points for Latin America and 1.4 points for Asia, excluding Japan. It should be noted, however, that countries with trend data are non-

representative in a number of ways; they tend to rank higher on indicators of socio-economic development and to have lower fertility and stronger family planning programmes than countries lacking such data (Weinberger, 1989). In Africa, particularly, the countries with a trend may indicate a deceptively high average growth rate for the major area as a whole.

270. At the same time, surveys conducted in the past few years have continued to add to the evidence of increasing use of contraception in continental sub-Saharan Africa. During the period covered in annex table A.4, prevalence increased by at least 1 percentage point per annum in Botswana, Cameroon, Kenya, Lesotho, Rwanda and Zimbabwe. There was, however, little or no increase in Ghana, Mauritania, Nigeria or Senegal during the period examined; and several additional countries shown in annex table A.3 also have very low levels of use, so that little upward trend could have occurred.

271. The increase in contraceptive use during the recent past has been most rapid in countries that had a moderate level of use at the beginning of the period considered. As can be seen from table 30, all but one of the countries with especially rapid increases of 2 or more percentage points annually had initial levels of contraceptive use in the range of 15-50 per cent. And in the large majority (about 85 per cent) of countries where prevalence was in that range at the earlier date, prevalence subsequently grew by more than 1 percentage point per annum. By contrast, annual increases of 1.0 point or more occurred in about 40 per cent of the developing countries where prevalence was at first either below 15 per cent or above 50 per cent.

272. Thus, although there are exceptions, countries in which contraceptive use has begun to grow from very low levels have usually experienced a sustained—and often very rapid—growth in prevalence, which has in most cases continued up to the most recent observation. Once contraception

BOX. 12. BIRTH CONTROL IN THE FORMER UNION OF SOVIET SOCIALIST REPUBLICS

Contraceptive prevalence data comparable to those available for other developed countries do not exist for the republics of the former USSR, but some information about availability and use of contraception as well as abortion has recently appeared. Before the 1980s, modern contraceptives other than condoms were essentially unavailable in the USSR. Fertility decline was accomplished primarily through extensive practice of induced abortion and an unknown degree of use of condoms and relatively ineffective methods requiring no supplies: withdrawal; calendar rhythm; and douches. During the 1980s, this situation began to change; but at the middle of the decade several surveys conducted in Moscow and at a few other cities showed that contraceptive use was still dominated by older methods. Rhythm, withdrawal and douches accounted for 55-71 per cent of contraceptive practice in the groups surveyed; condoms, for 11-32 per cent; and newer methods, for 8-19 per cent. In rural areas, modern methods were probably less widely used. Among the modern methods, intra-uterine devices (IUDs) predominate; sterilization was approved as a contraceptive procedure only in late 1990; and there is little use of oral pills, which have been difficult to obtain and are widely mistrusted by both the medical establishment and the general population.[a] The availability and use of IUDs increased rapidly during the 1980s—by one estimate, the percentage of married women of reproductive age currently using IUDs rose from 1 to 13 between 1979 and 1988[b]—but the supply of modern methods is estimated still to lag far behind the demand.

A survey in 1990, which covered all the republics of the former USSR, inquired about knowledge and use of contraceptive devices,[c] a category that presumably includes IUDs and condoms but would exclude most other methods, including the traditional methods that still account for most of contraceptive practice. Overall, 28 per cent of women of reproductive age were currently using a contraceptive device (see table): 19 per cent reported always using such a device; and 9 per cent, only sometimes. The percentages for always or sometimes using a device ranged from 17 per cent in Azerbaijan and Georgia to 32 in the Russian Federation; for all republics combined, the level of use was 31 per cent in urban areas and 21 in rural areas. In most of the republics, over 10 per cent of women reported not even knowing about contraceptive devices; and in Azerbaijan, this percentage was as high as 35.

PERCENTAGE USING CONTRACEPTIVE DEVICES[a], PERCENTAGE NOT KNOWING OF THEM AND ABORTION RATES[b], WOMEN OF REPRODUCTIVE AGE, REPUBLICS OF THE FORMER UNION OF SOVIET SOCIALIST REPUBLICS

	Percentage using contraceptive devices[c] 1990	*Percentage who do not know about contraceptive devices 1990*	*Abortion rate per 1,000 women aged 15-49 1989[d]*
Former USSR (total)	28	9	100[e]
Armenia	22	17	31
Azerbaijan	17	35	24
Belarus	23	12	102
Estonia	36	3	74
Georgia	17	20	51
Kazakhstan	30	9	86
Kyrgyzstan	30	13	86
Latvia	32	5	75
Lithuania	20	6	54
Republic of Moldova	22	11	83
Russian Federation	32	6	118
Tajikistan	21	18	47
Turkmenistan	20	23	46
Ukraine	23	10	85
Uzbekistan	28	17	8

Sources: Committee for Statistics, *Uslovia Truda i Byeta Zenchin: Statisticheski, Sbornik* (Labour and living conditions of women: collection of statistical materials) (Moscow, 1992); Union of Soviet Socialist Republics, State Committee on Statistics, *Demografichesky Ezhegodnik SSSR, 1990* (Demographic yearbook of the USSR, 1990) (Moscow, Finance and Statistics, 1990).

[a]Mainly condoms and intra-uterine devices.

[b]Statistics include illegal abortions if the woman was treated in a hospital as a result.

[c]Including those using sometimes.

[d]Abortions recorded by the Ministry of Public Health.

[e]Including abortions provided in hospitals of the Ministry of Railroads.

The table also shows the abortion rate, which is among the highest recorded worldwide even though the statistics exclude a large number of illegal abortions. The true rate in the late 1980s may be closer to 180 abortions per 1,000 women aged 15-49.[d] Even the rate officially recorded implies that the average woman would have over three abortions in her lifetime.[e] According to the available statistics, by 1990 increased use of more effective contra-

has first been adopted by a significant proportion of the population, its use usually continues to spread, so that eventually nearly all couples and sexually active individuals resort to it at some point in their life. Very rapid rates of growth have not been as common during the most recent period as earlier (Weinberger, 1989), but the general picture is still one of sustained, rapid growth in contraceptive prevalence.

273. The decline in contraceptive prevalence indicated in annex table A.4 for Haiti and Senegal is probably an artifact of measurement rather than a genuine decline. In both countries, the level of use of modern methods grew by a modest amount, and the decline was restricted to traditional methods whose use is difficult to measure consistently. At the other extreme, the high pace of increase indicated for Grenada and the Islamic Republic of Iran is outside the range observed elsewhere and should be regarded with caution.

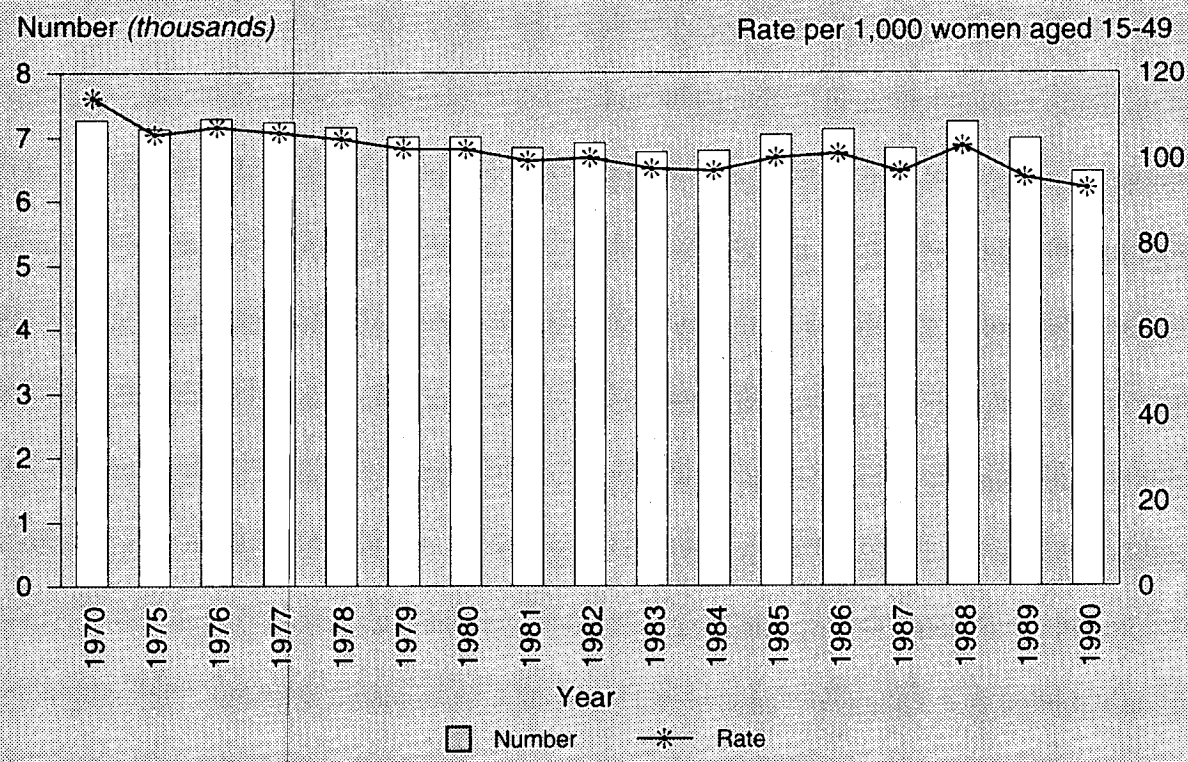
Developed countries

274. In most countries in the more developed regions, the level of contraceptive use has either increased in recent years or has remained approximately constant. A large increase, from 60 to 75 per cent, was recorded in Poland between the early and late 1970s; and in Spain; prevalence grew from 51 to 59 per cent (still relatively low) between 1976 and 1985. In several other developed countries, the most recent prevalence figure indicates a modest decline from earlier levels; and in Japan, the levels have fluctuated since the early 1970s. Those small changes may be due mainly to methodological differences between surveys and changes in the proportion of women at risk of a pregnancy.

3. *Types of contraception employed*

275. Relatively effective clinical and supply methods account for approximately 85 per cent of contraceptive use worldwide. Those methods, which include male and female

Abortions in the former Union of Soviet Socialist Republics, 1970-1990[a]



Sources: Union of Soviet Socialist Republics, State Committee on Statistics, *Demografichesky Ezhegodnik SSSR. 1990* (Demographic yearbook of the USSR, 1990) (Moscow, Finance and Statistics, 1990); Alexandre Avdeyev, "Contraception and abortions in the USSR: the trends of the 1980s and prospects for the 1990s", paper presented at the International Seminar on Demographic Processes in the USSR in the Context of European Experience, Tbilisi, 8-12 October, 1990.

NOTE: Abortions recorded by the Ministry of Public Health; 1990 estimated, assuming number of abortions in Lithuania remained at the 1989 level.

ceptive methods had not yet brought about an appreciable decline in the level of induced abortion (see figure).

[a]Andrej A. Popov, Adriaan Ph. Viser and Evert Ketting, "Contraceptive knowledge, attitudes and practice in Russia during the 1980s", *Studies in Family Planning* (New York), vol. 24, No. 4 (July-August 1993), pp. 227-240.

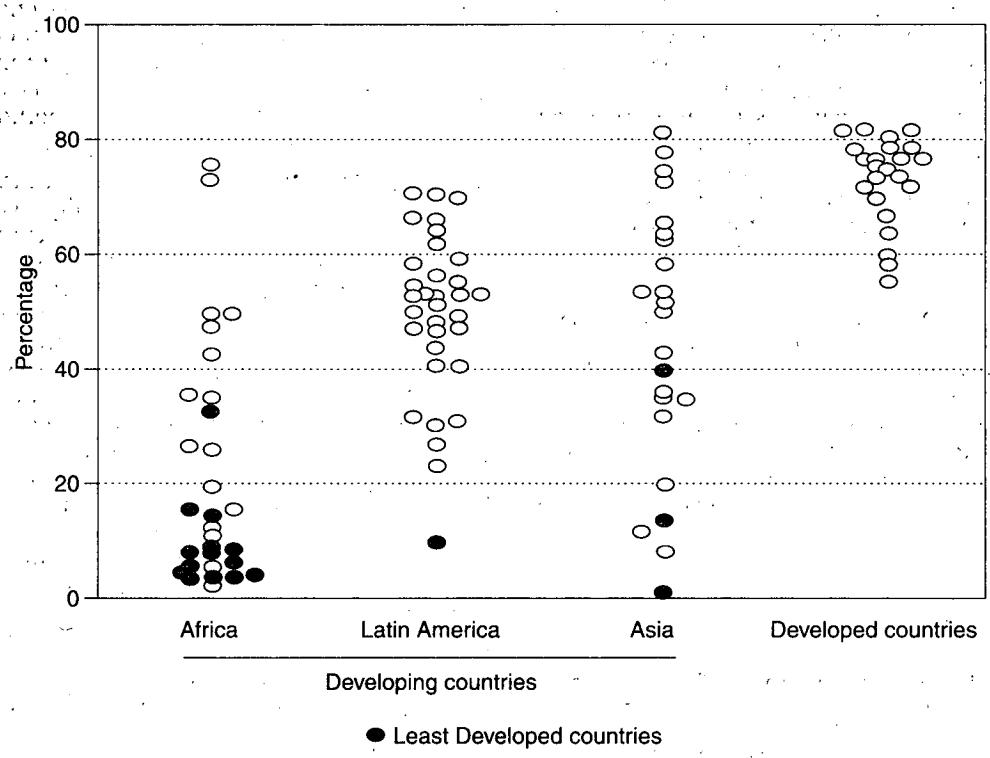
[b]Alexandre Avdeyev, "Contraception and abortions in the USSR: the trends of the 1980s and prospects for the 1990s", paper presented at the International Seminar on Demographic Processes in the USSR in the Context of European Experience, Tbilisi, 8-12 October 1990; Alexandre A. Avdeyev and Irina A. Troitskaya, "Contraception and abortion in the USSR: experience of the 1980s", paper presented at the European Population Conference, Paris, 21-15 October 1991.

[c]Union of Soviet Socialist Republics, "Questionnaire of the one-time Sample Survey of Labour and Living Conditions of Soviet Women, 1990", Moscow, State Statistical Committee, 1992, unpublished.

[d]Andrej A. Popov, "Induced abortions in the USSR at the end of the 1980s: the basis for the national model of family planning", paper presented at the Annual Meeting of the Population Association of America, Denver, Colorado, 30 April-2 May 1992.

[e]Avdeyev, op.cit.; Avdeyev and Troitskaya, op. cit.

Figure 29. Contraceptive prevalence, by major area



Source: Annex table A.3.

sterilization, intra-uterine devices (IUDs), the pill, injectable and implantable hormonal contraceptives, condoms and female barrier methods (diaphragm, cervical cap, spermicidal foams, creams, jellies and sponges), make up a larger fraction of contraceptive use in the developing countries than in the developed countries—estimated at 91 and 70 per cent, respectively. Prevalence of clinic and supply methods averages 50 per cent in the more developed regions and 48 per cent in the less developed regions (table 31).

276. The prevalence of non-supply and traditional methods differs more between the developed and the developing countries, 22 and 5 per cent, respectively. This group of methods includes periodic abstinence or rhythm, withdrawal (coitus interruptus), abstinence, douching and various folk methods. The higher levels of use of these methods in the developed countries reflects the continuing influence of patterns of fertility control established before the era of modern contraceptive methods and also the lack of wide availability of newer methods in some countries, including the former USSR (Popov, 1991). However, the most recent figures date from the 1970s in some of the European countries, and reliance upon traditional methods may have decreased since then; such trends are observed in countries that have had more recent surveys, especially in Belgium, France and Hungary.

277. The methods in widest use vary greatly between regions and between countries within regions. Although there is a general tendency for the more modern, effective methods to increase their predominance over time, the particular methods involved differ (United Nations, 1989).

Sterilization

278. Sterilization accounts for nearly 40 per cent of world contraceptive use. The prevalence of sterilization is highest in Asia (excluding Western Asia) and in Latin and Northern America; but is uncommon in sub-Saharan Africa, Western Asia and Eastern and Southern Europe. Female sterilization is much more common than male sterilization (17 and 5 per cent of couples, respectively, for the world as a whole), and the rate of female sterilization continues to grow more rapidly than that of male sterilization. In most countries where trends can be traced, sterilization has increased in prevalence more rapidly than other methods, often accounting for almost all of the recent increase in contraceptive prevalence. In some cases, growth in use of sterilization has meant a decline in the use of other modern methods (United Nations, 1989; Weinberger, 1991). Sterilization is one of two major methods (IUD is the other) to have achieved higher average prevalence in the developing than in the developed countries.

Oral contraceptives

279. The oral pill makes up an important fraction of contraceptive use in the large majority of countries, although not in the two most populous, China and India. The pill is especially uncommon in Japan, where it has not been approved for use as a contraceptive. Globally, an estimated 14 per cent of contraceptive users use the pill, 11 per cent in the developing countries and 22 per cent in the more developed regions. By area or region, the share of the pill in total contraceptive practice is highest in Africa, Latin America and Northern and Western Europe. The data presented here are for married women, but in some countries (mostly developed) contraceptive prevalence among never-married women reaches considerable levels, and the pill is often the most favoured method among those women. For countries with trend information, the share of the pill in total contraceptive practice has more often decreased than increased in

recent years. However, increases in the proportion are common in Europe and also appear in several developing countries. In other countries, where the share of the pill in use has declined, this often merely means that the number of women using the pill did not grow as rapidly as did the number using other methods. In some countries, however, the overall prevalence of the pill has decreased, after reaching a peak in the early to mid-1970s. In a few cases, including the Netherlands and the United States of America, the most recent data show a renewed growth in use of this method.

Intra-uterine devices

280. IUDs account for about one fifth of contraceptive use worldwide; and about two thirds of the IUD users live in China, where, according to a 1992 survey, one third of couples were currently using IUDs. The IUD is also an important method in many other countries, although in over half it contributes less than 10 per cent of total contraceptive use. In most countries with information about trends, the IUD has increased its share, or has retained approximately the same share, of total use.

Condom

281. Globally, 9 per cent of contraceptive users use condoms within marriage. The condom tends to be more popular in the developed than in the developing countries. In addition to Japan, where in 1992 about three fourths of contraceptive users employed condoms, this method is relatively important in Europe, Northern America, some countries in the Caribbean and several developing countries in Asia. In Africa, condoms make up only about 4 per cent of contraceptive use (about 1 per cent of couples). In most countries, there is little trend in the proportion of total contraceptive use attributable to the condom.

282. It should be borne in mind that the survey data presented here pertain to women in socially recognized unions and cannot be expected to give an accurate picture of condom use outside such unions, an important issue with respect to prevention of sexually transmitted diseases, including AIDS. In the United States of America, use of the condom increased among sexually active single women from 8 to 14 per cent between 1982 and 1988, while remaining stable among married women (Mosher and Pratt, 1990). It should also be noted that most surveys inquiring about contraceptive use have interviewed only women. When men are interviewed, they often report a higher level of condom use, especially if the sample is not restricted to married men. In addition, many of the surveys covered here were conducted before recent campaigns to promote condom use to protect against AIDS and other sexually transmitted diseases could have had much impact.

283. At the same time, it is relevant that many surveys conducted in the late 1980s or early 1990s found that, particularly in sub-Saharan Africa, large proportions of the pop-

TABLE 30. ANNUAL INCREASE IN CONTRACEPTIVE PREVALENCE, BY LEVEL OF USE AT THE BEGINNING OF THE PERIOD, DEVELOPING COUNTRIES OR AREAS

Prevalence at earlier time (percentage)	*Annual percentage-point increase in contraceptive prevalence*		
	< 1.0	*1.0-1.9*	*2.0 or more*
< 15	Ghana Haiti Iraq Malawi Mauritania Pakistan Nigeria Senegal Sudan	Cameroon Lesotho Nepal Rwanda	—
15-34	Guatemala Jordan	Bolivia Botswana Ecuador Egypt India Indonesia Honduras Kenya Malaysia Morocco Nicaragua Philippines Tunisia	Bangladesh Grenada Mexico Sri Lanka
35-49	Dominica El Salvador Saint Lucia	Barbados Colombia Dominican Republic Paraguay Peru Zimbabwe	Algeria Antigua Iran (Islamic Republic of) Saint Vincent and the Grenadines
50-64	Trinidad and Tobago Panama Puerto Rico	Jamaica Singapore Thailand Turkey	Republic of Korea
65+	Costa Rica Hong Kong Mauritius	China	—

Source: Annex table A.4.

ulation have not even heard of the condom; there is plainly still a great need for provision of basic information about prevention of sexually transmitted diseases. For example, surveys conducted in eight sub-Saharan countries[17] during 1989-1991 under the auspices of the Global Programme on AIDS of the World Health Organization (WHO) asked both men and women about their knowledge and use of condoms. Except in Mauritius, roughly 30-45 per cent of men and 25-70 per cent of women had not heard of condoms (Caraël, 1992). Only 13-31 per cent of men and 5-11 per cent of women reported ever using them. Very low levels of awareness and use of condoms have also been reported in many of the surveys conducted in the late 1980s and early 1990s through the DHS programme.[18]

Other methods

284. Injectable hormonal contraceptives are not available in all countries, but in some they have attracted a significant number of users. Globally, they account for an estimated 1 per cent of contraceptive use. Even newer methods, such as the Norplant subdermal implant, do not yet show up in appreciable numbers in surveys, with a few exceptions (see box 13).

285. Vaginal barrier methods also account for about 1 per cent of contraceptive practice. In most countries, vaginal barrier methods have either decreased in popularity in relation to other methods or have maintained a roughly constant low share of current practice.

286. Rhythm, or periodic abstinence, and withdrawal are employed by 6 and 7 per cent, respectively, of contraceptive users. Withdrawal is the more common method in most European countries, while rhythm is more common in most non-European countries. In most countries, rhythm and withdrawal have been declining in importance in relation to other methods.

287. Although most surveys have asked specifically about use of the methods discussed above, there has been less consistency in survey questions regarding abstinence, douching and a variety of folk methods; and they are sometimes excluded from the definition of contraception. Some surveys have excluded the period of abstinence following a birth from the definition of "contraception", while others have included it if the respondent mentioned it as the current method. This can have a large impact on the apparent level of contraceptive use in some sub-Saharan countries, where the period of abstinence traditionally is observed for a year or more after a birth.

4. *Availability of contraceptives*

288. In order for people to use modern contraception, the methods must be available. Family planning programmes have devoted much of their resources to extending the availability of contraception, often in conjunction with other health services. Providing universal access is most difficult for methods that must rely upon trained medical providers, such as sterilization and IUDs.

TABLE 31. AVERAGE PREVALENCE OF SPECIFIC CONTRACEPTIVE METHODS, BY REGION, BASED ON RECENT AVAILABLE SURVEY DATA, AVERAGE DATE 1990

Major area and region	All methods (1)	Modern methods[a] (2)	Sterilization Female (3)	Sterilization Male (4)	Pill (5)	Injectables (6)	Intrauterine device (7)	Condom (8)	Vaginal barrier methods (9)	Rhythm (10)	Withdrawal (11)	Other methods (12)
A. *Based on couples with the woman of reproductive age*												
World	57	49	17	5	8	1	12	5	1	3	4	1
Less developed regions	53	48	20	5	6	1	14	3	0.2	2	2	1
Africa	18	14	1	0.1	6	2	4	1	0.2	2	1	1
Northern Africa	38	35	2	—	18	0.3	14	1	0.3	2	1	0.3
Sub-Saharan Africa[b]	12	8	1	0.1	3	2	1	0.5	0.1	2	1	1
Asia and Oceania[c]	58	54	23	6	4	1	16	3	0.1	2	2	1
Eastern Asia[c]	79	79	33	10	3	0.2	31	2	0.2	1	0.1	0.2
Other countries	42	35	15	4	5	2	5	4	0.1	3	3	1
Latin America	58	49	21	1	16	1	7	2	1	5	3	1
More developed regions[d]	72	50	8	4	16	0.1	6	14	2	7	14	1
B. *Based on contraceptive users*												
World	100	86	30	9	14	2	21	9	1	6	7	2
Less developed regions	100	91	37	9	11	3	26	5	0.4	4	3	2
Africa	100	79	8	0.4	36	10	20	4	1	11	5	5
Northern Africa	100	91	5	—	46	0.1	36	3	1	5	3	1
Sub-Saharan Africa[b]	100	68	10	1	27	17	8	4	1	16	7	8
Asia and Oceania[c]	100	93	39	11	7	2	28	5	0.2	3	3	2
Eastern Asia[c]	100	99	41	12	4	0.2	39	2	0.3	1	0.1	0.3
Other countries	100	84	36	9	13	5	12	9	0.1	7	4	3
Latin America	100	83	36	1	28	2	11	4	1	9	6	2
More developed regions[d]	100	70	11	6	22	0.2	8	19	3	10	19	1

Source: World Contraceptive-use Data Diskettes, 1991: User's Manual (United Nations publication, ST/ESA/SER.R/120), and files maintained by the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat.

NOTE: Assumptions were required for countries that lacked survey data. In Latin America, countries without data were assumed to have the same level and pattern of contraceptive use as those with data. In Africa and Asia, however, missing countries were assumed to have lower levels of contraceptive prevalence that the average for countries with data: 10 per cent in sub-Saharan Africa; 50 per cent in Eastern Asia; and 30 per cent in Northern Africa and in the rest of Asia. For the developing countries as a whole, alternate reasonable assumptions make relatively little difference, because survey data exist for over 90 per cent of the population of those countries. The former USSR was assumed to have the same pattern of contraceptive practice as the average for Eastern Europe.

[a]Including methods in columns (3)-(9).

[b]Africa, excluding Northern Africa.

[c]Excluding Japan.

[d]Australia–New Zealand, Europe, Japan, Northern America and the former USSR.

BOX 13. NEW CONTRACEPTIVE METHODS

All existing contraceptive methods have drawbacks—inconvenience, cost, side-effects and health risks, or unreliability, depending upon the method. There is thus still a pressing need for better types of contraception.

As of April 1994, the Norplant subdermal implant had received approval in 38 countries from regulatory agencies, or government approval to supply the method through the family planning programme. An important milestone was the granting of approval in the United States of America in December 1990. It is estimated that over 2.5 million women were using Norplant as of early 1994, with the United States and Indonesia having the largest numbers of users.[a]

Norplant consists of a set of flexible rods which are inserted beneath the skin and gradually release a contraceptive hormone. The rods, which remain effective for three years or longer, depending upon the type of Norplant system used, can be removed to restore fertility. The hormone itself is not new—it has been used in some birth control pills, for instance—but from the point of view of both family planning users and providers, this implant is unique among hormonal methods in offering a long period of highly effective protection without need for frequent resupply. Research to develop Norplant began in the 1970s, and research is continuing to monitor its reception by larger groups of women, and its safety, side-effects, discontinuation and method-switching.

Barrier methods of contraception have been receiving increased attention for their ability to protect against transmission of sexually transmitted diseases, including AIDS. A female condom or vaginal sheath has been developed, and studies of its acceptability and use are ongoing in several countries. There are also studies directed to improving the reliability of condoms, and to understanding and trying to increase condom use, particularly by persons with multiple sexual partners, as well as studies of the effects of other barrier methods—spermicides, diaphragms, cervical caps—on disease transmission.

Research directed to developing other types of both male and female methods is proceeding, but most of these methods will not be ready for general introduction within this decade. Hormone-releasing vaginal rings are at an intermediate stage of clinical testing. Mifepristone (RU486) has been approved as an abortifacient in several countries, but this and related compounds are also being investigated as contraceptives. Antifertility vaccines and male hormonal methods are also under investigation.

[a]Personal communication from Sandra Waldman, The Population Council, April 1994.

289. Ratings of a variety of aspects of family planning effort conducted in 1982 (Lapham and Mauldin, 1984) and 1989 (Mauldin and Ross, 1991; Mauldin, 1992) indicate that there has been rapid progress in extending the availability of contraception in the developing countries (table 32). On a composite score reflecting availability of a range of contraceptive methods, average availability increased from 61 points in 1982 to 76 points in 1989, out of a maximum score of 100.[19] Asia, except for Western Asia, and Latin America are the major areas where contraceptives are most widely available, as reflected in the composite availability scores of 74-88 points in 1989. Western Asia and Northern Africa had much lower scores of 36 and 44 points, respectively. These regions, however, experienced a substantial increase in availability between 1982 and 1989. Availability is much more limited in sub-Saharan Africa, although these countries also showed a substantial increase in availability since 1982.

290. The most widely available methods were condoms and the pill, estimated to be readily available to roughly 70 per cent of the population of the developing countries in 1989. Female sterilization and IUDs were judged to be readily available to 63-66 per cent of the population and male sterilization to 58 per cent. Access to safe abortion was also rated and was estimated to be available to about half of the population. Availability of all methods increased between 1982 and 1989.

291. The relative availability of different methods differs by region. For instance, the availability of sterilization, especially male sterilization, tends to be quite poor in Africa and in Western Asia, while in other parts of Asia both male and female sterilization are approximately as readily available as other methods. In Latin America, female sterilization is estimated to be available to about 70 per cent of the population, but male sterilization to only about one third.

5. *Fertility desires and unmet need for contraception*

292. In most developing countries surveyed during the 1970s, a large proportion of the women that had an apparent need for family planning were not using contraception. For instance, a United Nations study covering 38 countries found that among married, non-pregnant, fecund women that wanted no more children, on average nearly 60 per cent were not using contraception. An average of 25 per cent of older women (ages 40-49) had more living children than the number they reported wanting (United Nations, 1987, tables 41 and 79). Results like these were taken to indicate that there was a need for family planning services that was not being met.

293. As reviewed above, use of contraception subsequently grew substantially in the developing countries. It does not necessarily follow that the unmet need has diminished, however, because recent surveys show that the number of children desired has also been declining between the 1970s and 1980s. In addition, as discussed earlier, the total number of women that must be reached by family planning programmes is growing rapidly.

294. In 15 developing countries where trends can be compared, the percentage of married fecund women that currently wanted no more children rose by an average of 10 percentage points between the World Fertility Survey series conducted in the 1970s and the DHS programme conducted approximately a decade later. The average number of children desired declined by an average of 20 per cent (Westoff, 1991). Unwanted births still contributed about one fourth of the total fertility rate at the time of surveys conducted in the late 1980s (ranging between 8 and 49 per cent among 13 countries) (Bongaarts, 1990).

295. In some cases, unwanted fertility rose between the 1970s and 1980s, evidently because family planning practice had not increased enough to keep pace with changing fertility desires. These were primarily countries where the fertility transition began recently; where fertility decline was more advanced, unwanted fertility more often declined over time (Bongaarts, 1990). Such trend comparisons are available for too few countries to permit general conclusions to be drawn about whether the incidence of unwanted child-

TABLE 32. PERCENTAGE OF POPULATION OF DEVELOPING COUNTRIES WITH EASY ACCESS TO CONTRACEPTION AND PERCENTAGE WITH EASY ACCESS TO SAFE ABORTION SERVICES, BY MAJOR AREA OR REGION, 1982 AND 1989

Major area or region	Number of countries	Contraceptive availability score percentage of maximum[a]		Contraceptive methods										Safe abortion	
				Sterilization				Intra-uterine device		Pill		Condom			
				Female		Male									
		1982	1989	1982	1989	1982	1989	1982	1989	1982	1989	1982	1989	1982	1989
All developing countries[b]	89	61	76	56	66	52	58	49	63	42	69	61	71	44	51
Africa	40	13	29	5	13	1	3	11	27	17	38	17	39	10	15
Northern Africa	6	26	44	7	24	0	0	28	53	38	62	32	47	16	22
Other Africa	34	8	25	4	9	1	4	6	19	11	31	12	36	8	13
Asia	28	72	86	66	77	66	73	58	72	44	73	69	75	51	59
Western Asia	9	11	36	2	14	0	5	8	39	16	46	19	42	15	26
Other Asia	19	74	88	69	79	69	76	60	74	45	75	71	77	53	60
Excluding China	18	60	79	54	72	54	66	40	63	35	64	59	68	28	40
Latin America	20	59	74	56	70	21	32	39	47	65	86	61	87	40	50

Sources: Tabulated at the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat; and from family planning availability scores in Robert Sendek and Yvette Bayoumy, "Population Council Databank (version 3.0): based on country-specific estimates by Robert Lapham and W. Parker Mauldin for 1982 and by W. Parker Mauldin and John Ross for 1989".

NOTES: For countries with estimates available at both dates. These countries contain 97 per cent of the population of developing countries. To obtain regional averages, countries have been weighted by population size.

The percentage available was scored on a scale ranging from 0 to 80+ per cent. For countries assigned the maximum score for a particular method, it has been assumed here that 90 per cent of the population had easy access to the method.

[a]The percentage availability represents the sum of the scores for the specific contraceptive methods (not including abortion). The maximum possible score is achieved if all of the specific contraceptive methods shown were judged to be easily available to at least 80 per cent of the population.

[b]Including one country in Oceania.

bearing is on the increase or is declining in the developing countries.

296. Estimates based on the DHS programme during the 1980s also show that, on average, about 20 per cent of married women of reproductive age have a current unmet need for contraception. Although these estimates cannot be considered precise—there are persistent disagreements about the best way to measure unmet need[20]—they do give grounds for expecting contraceptive prevalence to continue to grow in many countries as family planning services are extended.

297. As a final point, recent surveys in sub-Saharan Africa indicate that the number of women interested in limiting their family size appears now to be substantial in many of those countries, including some in which the use of contraception is still extremely low.[21] This finding may indicate that the fertility transition will soon spread beyond the few sub-Saharan countries where birth rates have already began to decline.

C. Fertility and family planning policies: A global analysis

298. Three years into the final decade of the twentieth century, 45 per cent of the countries in the world viewed their level of fertility as being too high. This number represents 67 per cent of the world population (table 33). The gradual shift towards viewing fertility as being excessive (the corre-

TABLE 33. GOVERNMENTS' OVERALL APPRAISAL OF RATES OF FERTILITY AND INTERVENTION TO INFLUENCE RATES: NUMBER OF COUNTRIES AND POPULATION SIZE IN ABSOLUTE NUMBERS AND PERCENTAGE, BY LEVEL OF DEVELOPMENT AND MAJOR AREA, 1993

	Rates too low		*Rates satisfactory*				*Rates too high*		
	No direct intervention reported (1)	*Intervention to raise rates (2)*	*Intervention to raise rates (3)*	*Intervention to maintain rates (4)*	*No direct intervention reported (5)*	*Intervention to lower rates (6)*	*Intervention to lower rates (7)*	*No direct intervention reported (8)*	*Total (9)*
World									
Number of countries	3	19	4	26	52	1	77	8	190
Population (millions)	206 744	241 917	22 496	342 243	947 278	33 424	3 623 876	46 380	5 464 358
Population (percentage)	3.8	4.4	0.4	6.3	17.3	0.6	66.3	0.8	100.0
Developed countries									
Number of countries	3	12	2	16	22	0	1	0	56
Population (millions)	206 744	200 870	7 616	249 304	557 562	0	2 143	0	1 224 239
Population (percentage)	16.9	16.4	0.6	20.4	45.5	0.0	0.2	0.0	100.0
Developing countries[a]									
Number of countries	0	7	2	10	30	1	76	8	134
Population (millions)	0	41 047	14 880	92 939	389 716	33 424	3 621 733	46 380	4 240 119
Population (percentage)	0.0	1.0	0.4	2.2	9.2	0.8	85.4	1.1	100.0
Least developed countries									
Number of countries	0	1	0	1	13	0	29	3	47
Population (millions)	0	8 774	0	4 469	138 912	0	362 243	23 241	537 639
Population (percentage)	0.0	1.6	0.0	0.8	25.8	0.0	67.4	4.3	100.0
Africa									
Number of countries	0	1	1	1	10	0	36	4	53
Population (millions)	0	1 237	12 910	1 098	98 123	0	551 829	15 601	680 798
Population (percentage)	0.0	0.2	1.9	0.2	14.4	0.0	81.1	2.3	100.0
Asia									
Number of countries	1	5	1	7	7	0	16	1	38
Population (millions)	124 491	36 680	1 970	91 572	50 818	0	2 900 640	19 062	3 225 233
Population (percentage)	3.9	1.1	0.0	2.8	1.6	0.0	89.9	0.6	100.0
Europe									
Number of countries	2	11	1	7	17	0	1	0	39
Population (millions)	82 253	179 417	3 755	42 248	201 827	0	2 143	0	511 643
Population (percentage)	16.1	35.1	0.7	8.3	39.4	0.0	0.4	0.0	100.0
Latin America									
Number of countries	0	1	0	1	12	1	16	2	33
Population (millions)	0	3 130	0	259	240 618	33 424	167 683	7 661	452 775
Population (percentage)	0.0	0.7	0.0	0.0	53.1	7.4	37.0	1.7	100.0
Northern America									
Number of countries	0	0	0	0	2	0	0	0	2
Population (millions)	0	0	0	0	282 526	0	0	0	282 526
Population (percentage)	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0
Oceania									
Number of countries	0	0	0	1	3	0	8	1	13
Population (millions)	0	0	0	10	21 208	0	1 581	4 056	26 855
Population (percentage)	0.0	0.0	0.0	0.0	79.0	0.0	5.9	15.1	100.0
USSR (former)[b]									
Number of countries	0	1	1	9	1	0	0	0	12
Population (millions)	0	21 453	3 861	207 056	52 158	0	0	0	284 528
Population (percentage)	0.0	7.5	1.4	72.8	18.3	0.0	0.0	0.0	100.0

Source: The Population Policy Data Bank maintained by the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat.

[a]Including the least developed countries.

[b]Not including Estonia, Latvia and Lithuania, which are included in Europe.

sponding figure was 40 per cent of all countries in 1986) is the continuation of a long-term trend that was already under way during the period 1976-1983, when the percentage increased slightly from 35 to 37 per cent. The percentage of countries that viewed fertility as too low declined from 13 per cent in 1983 to 12 per cent in 1993, while those viewing fertility as satisfactory declined from 45 to 44 per cent between 1983 and 1993 (table 34).

299. With regard to the policies undertaken to influence the level of fertility, the trend closely parallels those of the perceptions of fertility mentioned above. The percentage of countries that intervened to lower fertility increased from 26 to 41 per cent between 1976 and 1993, while the percentage of countries with policies to raise fertility increased slightly during the same period, from 9 to 12 per cent. Those countries with a policy of non-intervention declined sharply, from 51 to 33 per cent (table 35).

300. Such a global analysis, however, masks much of the diversity that is apparent at a lower level of aggregation (annex table A.5). For example, as of 1993, although 63 per cent of the developing countries viewed their fertility level as too high, only a single developed country held that perception. Slightly more than two thirds of the developed countries (70 per cent) viewed their fertility as being satisfactory. Those developing countries (7 per cent) which viewed their fertility as too low are for the most part countries with relatively small populations and low population densities.

TABLE 34. GOVERNMENTS' VIEW OF THE FERTILITY LEVEL, 1976-1993
(Percentage of countries)

Year	Too low	Satisfactory	Too high	Total	Number of countries
1976	11.5	53.2	35.3	100.0	156
1983	13.1	45.2	36.9	100.0	168
1986	14.1	50.0	40.0	100.0	170
1989	12.4	45.9	44.1	100.0	170
1993	11.6	43.7	44.7	100.0	190

Source: The Population Policy Data Bank maintained by the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat.

TABLE 35. GOVERNMENTS' POLICY TO INFLUENCE THE LEVEL OF FERTILITY, 1976-1993
(Percentage of countries)

Year	To raise	To maintain	To lower	No intervention	Total	Number of countries
1976	9.0	14.1	25.6	51.3	100.0	156
1983	14.3	14.3	28.6	42.8	100.0	168
1986	11.8	11.2	32.4	44.6	100.0	170
1989	12.4	10.6	37.6	39.4	100.0	170
1993	12.1	13.7	41.1	33.2	100.0	190

Source: The Population Policy Data Bank maintained by the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat.

301. With a per capita GOP of about $311 in 1990, the 47 countries classified by the United Nations as least developed are particularly ill-equipped to develop their domestic economies and to ensure an adequate level of living for their populations. As of 1992, the least developed countries had a combined population of 541 million, or about 10 per cent of the world total. With a TFR that had been hovering between 6.1 and 6.7 children per woman since 1950—it is 6.1 for the period 1985-1990—the least developed countries are typical of countries at the early stage of the demographic transition. In comparison, TFR for all the developing countries is estimated to be 3.9 children per woman for the period 1985-1990.

302. To help meet their pressing needs, the Programme of Action for the Least Developed Countries for the 1990s was adopted at the Second United Nations Conference on the Least Developed Countries in September 1990. The programme has as its basic principle a strengthening of the partnership between the least developed countries and the international donor community. This aim reflects the twin realization that the least developed countries cannot overcome their structural handicaps without sufficient international support and that, at the same time, economic and developmental reform by the least developed countries themselves is essential.

303. An important determinant of reproductive behaviour, as well as of maternal and child health, has been government policies concerning the effective use of modern methods of contraception. Direct support entails the provision of family planning services through Government-run facilities, such as hospitals, clinics, health posts and health centres, and through government fieldworkers. As of 1993, more than three fourths of all the countries (82 per cent) provided direct support, while 7 per cent provided indirect support and 10 per cent provided no support (table 36). Two per cent of countries have limited access to contraception. These developments represent a dramatic shift towards government support for contraception since 1974. At the time of the World Population Conference in 1974, 55 per cent of the countries supported contraceptive methods directly, 15 per cent provided support indirectly, 22 per cent gave no support and 2 per cent had limited access to contraceptive methods. Despite the pervasiveness of direct government support for modern methods of family planning, the demand for family planning services is believed to outstrip the supply. In 1990, for example, it is estimated that 300 million women in the developing countries did not have ready access to safe and effective means of contraception.

TABLE 36. GOVERNMENTS' POLICY CONCERNING ACCESS TO CONTRACEPTIVE METHODS, 1974-1993
(Percentage of countries)

Year	Access limited	Access not limited: No support	Access not limited: Indirect support	Access not limited: Direct support	Total	Number of countries
1974	7.1	22.4	15.4	55.1	100.0	156
1983	4.2	19.0	16.7	60.1	100.0	168
1986	3.5	10.6	14.1	71.8	100.0	170
1989	4.1	11.8	11.8	72.4	100.0	170
1993	1.6	9.5	7.4	81.6	100.0	190

Source: The Population Policy Data Bank maintained by the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat.

304. One of the oldest and widely utilized birth control methods is induced abortion. It is estimated that between 36 million and 53 million induced abortions are performed annually. Based on various estimates, it is believed that 15 million are clandestine abortions. According to a recently issued study on abortion policies (United Nations, 1992a and 1993a), based on the information available for 119 countries, the overwhelming majority (89 per cent) permit abortion in order to save the woman's life (table 37). The countries that do not permit abortion to save the woman's life are: Chile and Malta, where abortion is prohibited in any circumstance; the Central African Republic, the Dominican

Republic and Egypt, although the general principles of criminal law in these countries permit abortion to save the woman's life; Colombia and Mauritius, where legal interpretation generally permits abortion to save the woman's life; Honduras, where the Code of Medical Ethics permits it to save the woman's life; and Nepal, where rules of the Medical Council permit it. Seventy-three of the countries (61 per cent) permit abortion to preserve the woman's physical health; 60 countries (50 per cent) allow abortion when it is to preserve the woman's mental health; and 53 countries (44 per cent) permit it when the pregnancy resulted from rape or incest. The number declines to 49 countries (41 per cent) when there is the possibility of foetal impairment and to 36 countries (30 per cent) for economic or social reasons. Lastly, in 24 countries (20 per cent) abortion is available upon request.

305. Disaggregating the 119 countries by level of development reveals significant differences in abortion policies between developed and developing countries (figure 30). For example, of the 36 developed countries, 81 per cent permit abortion on all grounds except "on request". In contrast, among the 83 developing countries, the percentage permitting abortion varies considerably. Of the developing countries, 89 per cent permit abortion to save the woman's life. Only 8 per cent, however, permit abortion for economic or social reasons, whereas 81 per cent of the developed countries permit it for those reasons. Furthermore, while 5 per cent of the developing countries permit abortion "on request", 56 per cent of the developed countries do so. Based on the information from the 119 countries, the data suggest that abortion policies are significantly more restrictive in the developing countries than in the developed countries (see box 14).

1. *Africa*

306. With an overall decline in TFR from 6.7 children per woman in the period 1950-1955 to 6.3 during the period 1985-1990, patterns of reproductive behaviour in Africa

TABLE 37. GROUNDS ON WHICH ABORTION IS PERMITTED: AFGHANISTAN TO NORWAY

Country	Grounds on which abortion is permitted						
	To save the life of the woman (1)	*To preserve physical health* (2)	*To preserve mental health* (3)	*Rape or incest* (4)	*Foetal impairment* (5)	*Economic or social reasons* (6)	*On request* (7)
Afghanistan	x	-	-	-	-	-	-
Albania	x	x	x	x	x	x	x
Algeria	x	x	x	x	-	-	-
Angola[a]	x	-	-	-	-	-	-
Antigua and Barbuda	x	-	-	-	-	-	-
Argentina	x	x	-	-	-	-	-
Armenia	x	x	x	x	x	x	x
Australia	x	x	x	x	x	x	-
Austria	x	x	x	x	x	x	x
Azerbaijan	x	x	x	x	x	x	x
Bahamas[b]	x	x	x	-	-	-	-
Bahrain	x	x	x	-	x	-	-
Bangladesh	x	-	-	-	-	-	-
Barbados	x	x	x	x	x	x	-
Belarus	x	x	x	x	x	x	x
Belgium	x	x	x	x	x	x	-
Belize	x	x	x	x	x	x	-
Benin	x	-	-	-	-	-	-
Bhutan	..	..	..	..	..	..	..
Bolivia	x	x	-	x	-	-	-
Bosnia and Herzegovina	x	x	x	x	x	x	x
Botswana	x	x	x	x	x	-	-
Brazil	x	-	-	x	-	-	-
Brunei Darussalam	x	-	-	-	-	-	-
Bulgaria	x	x	x	x	x	x	x
Burkina Faso	x	x	-	-	-	-	-
Burundi	x	x	-	-	-	-	-
Cambodia	x	-	-	-	-	-	-
Cameroon	x	x	-	x	-	-	-
Canada	x	x	x	x	x	x	x
Cape Verde	x	x	x	x	x	x	-
Central African Republic[c]	-	-	-	-	-	-	-
Chad	x	-	-	-	-	-	-
Chile	-	-	-	-	-	-	-
China	x	x	x	x	x	x	x
Colombia[b]	-	-	-	-	-	-	-
Comoros	x	x	-	-	-	-	-
Congo	x	x	-	-	-	-	-
Costa Rica	x	x	-	-	-	-	-
Côte d'Ivoire	x	-	-	-	-	-	-
Croatia	x	x	x	x	x	x	x
Cuba	x	x	x	x	x	x	x
Cyprus[b]	x	x	x	x	x	-	-
Czech Republic	x	x	x	x	x	x	x
Democratic People's Republic of Korea	x	x	x	x	x	x	x

TABLE 37 *(continued)*

Country	Grounds on which abortion is permitted						
	To save the life of the woman (1)	*To preserve physical health (2)*	*To preserve mental health (3)*	*Rape or incest (4)*	*Foetal impairment (5)*	*Economic or social reasons (6)*	*On request (7)*
Denmark	x	x	x	x	x	x	x
Djibouti	-	-	-	-	-	-	-
Dominica	x	-	-	-	-	-	-
Dominican Republic[c]	-	-	-	-	-	-	-
Ecuador[d]	x	x	-	x	-	-	-
Egypt[c]	-	-	-	-	-	-	-
El Salvador	x	-	-	x	x	-	-
Equatorial Guinea[a]	..	..	..	..	..	..	..
Estonia	x	x	x	x	x	x	x
Ethiopia	x	x	-	-	-	-	-
Fiji[b]	x	x	x	-	-	-	-
Finland	x	x	x	x	x	x	-
France	x	x	x	x	x	x	-
Gabon	x	-	-	-	-	-	-
Gambia	x	x	x	-	-	-	-
Georgia	x	x	x	x	x	x	x
Germany[e]	x	x	x	x	x	-	-
Ghana	x	x	x	x	x	-	-
Greece	x	x	x	x	x	x	x
Grenada	x	x	x	-	-	-	-
Guatemala	x	-	-	-	-	-	-
Guinea	x	x	x	-	-	-	-
Guinea-Bissau[f]	x	-	-	-	-	-	-
Guyana	x	x	x	-	-	-	-
Haiti[a]	x	-	-	-	-	-	-
Holy See	-	-	-	-	-	-	-
Honduras[g]	-	-	-	-	-	-	-
Hungary	x	x	x	x	x	x	-
Iceland	x	x	x	x	x	x	-
India[h]	x	x	x	x	x	-	-
Indonesia	x	-	-	-	-	-	-
Iran (Islamic Republic of)	x	-	-	-	-	-	-
Iraq	x	x	x	x	x	-	-
Ireland[b]	x	-	-	-	-	-	-
Israel	x	x	x	x	x	-	-
Italy	x	x	x	x	x	x	-
Jamaica[b]	x	x	x	-	-	-	-
Japan[i]	x	x	x	x	-	x	-
Jordan	x	x	x	-	-	-	-
Kazakhstan	x	x	x	x	x	x	x
Kenya	x	-	-	-	-	-	-
Kiribati	x	-	-	-	-	-	-
Kuwait	x	x	x	-	x	-	-
Kyrgyzstan	x	x	x	x	x	x	x
Lao People's Democratic Republic	x	-	-	-	-	-	-
Latvia	x	x	x	x	x	x	x
Lebanon	x	-	-	-	-	-	-
Lesotho	x	-	-	-	-	-	-
Liberia	x	x	x	x	x	-	-
Libyan Arab Jamahiriya	x	-	-	-	-	-	-
Liechtenstein	x	x	x	-	-	-	-
Lithuania	x	x	x	x	x	x	x
Luxembourg	x	x	x	x	x	x	-
Madagascar	x	-	-	-	-	-	-
Malawi	x	x	-	-	-	-	-
Malaysia	x	x	x	-	x	-	-
Maldives	x	x	-	-	-	-	-
Mali	x	-	-	-	-	-	-
Malta	-	-	-	-	-	-	-
Marshall Islands	x	x	x	-	-	-	-
Mauritania	x	-	-	-	-	-	-
Mauritius[b]	-	-	-	-	-	-	-
Mexico[j]	x	-	-	x	-	-	-
Micronesia (Federated States of)	..	..	..	..	..	..	..
Monaco	x	-	-		-	-	-
Mongolia	x	x	x		x	x	x
Morocco	x	x	-		-	-	-
Mozambique[a]	x	-	-		-	-	-

TABLE 37 *(continued)*

Country	To save the life of the woman (1)	To preserve physical health (2)	To preserve mental health (3)	Rape or incest (4)	Foetal impairment (5)	Economic or social reasons (6)	On request (7)
	Grounds on which abortion is permitted						
Myanmar	x	-	-		-	-	-
Namibia	x	x	x		x	-	-
Nauru	x	-	-		-	-	-
Nepal[k]	-	-	-		-	-	-
Netherlands	x	x	x		x	x	x
New Zealand[l]	x	x	x		x	-	-
Nicaragua	x	-	-		-	-	-
Niger	x	-	-		-	-	-
Nigeria	x	-	-		-	-	-
Norway	x	x	x		x	x	x
TOTAL	109	73	60	53	49	36	24
Percentage	91	61	50	44	41	30	20

Sources: *Abortion Policies: A Global Review*, vol. I, *Afghanistan to France* (United Nations Publication, Sales No. E.92.XIII.3); vol. II, *Gabon to Norway* (United Nations Publication, Sales No. E.94.XIII.2).

NOTES: An X indicates that abortion is permitted. A hyphen (-) indicates that abortion is not permitted.

[a]Official interpretation generally permits these grounds: Angola, for grounds (2) to (5); Haiti, for grounds (2) , (4) and (5); Mozambique, for grounds (2) to (7).

[b]Legal interpretation generally permits this ground: Bahamas, for grounds (4) and (5); Colombia, for ground (1); Cyprus, for ground (6); Fiji, for grounds (4) to (6); Ireland, for ground (1); Jamaica, for grounds (4) and (5); Mauritius, for ground (1).

[c]General principles of criminal law permit this ground: Central African Republic, for ground (1); Dominican Republic, for ground (1); Egypt, for grounds (1) and (2).

[d]For ground (4), yes, but conditional.

[e]For grounds (6) and (7), abortion may be considered in exceptional circumstances, based on the Federal Constitutional Court decision of 28 May 1993.

[f]For grounds (2) to (7), the Portuguese law forbidding abortion has not been repealed; however, the law is not enforced and abortion is largely tolerated.

[g]For ground (1), the Honduran Code of Medical Ethics allows physicians to perform abortion on this ground.

[h]For ground (6), abortion on this ground may be considered under health grounds.

[i]For ground (3), permission for an abortion must be considered in conjunction with other grounds.

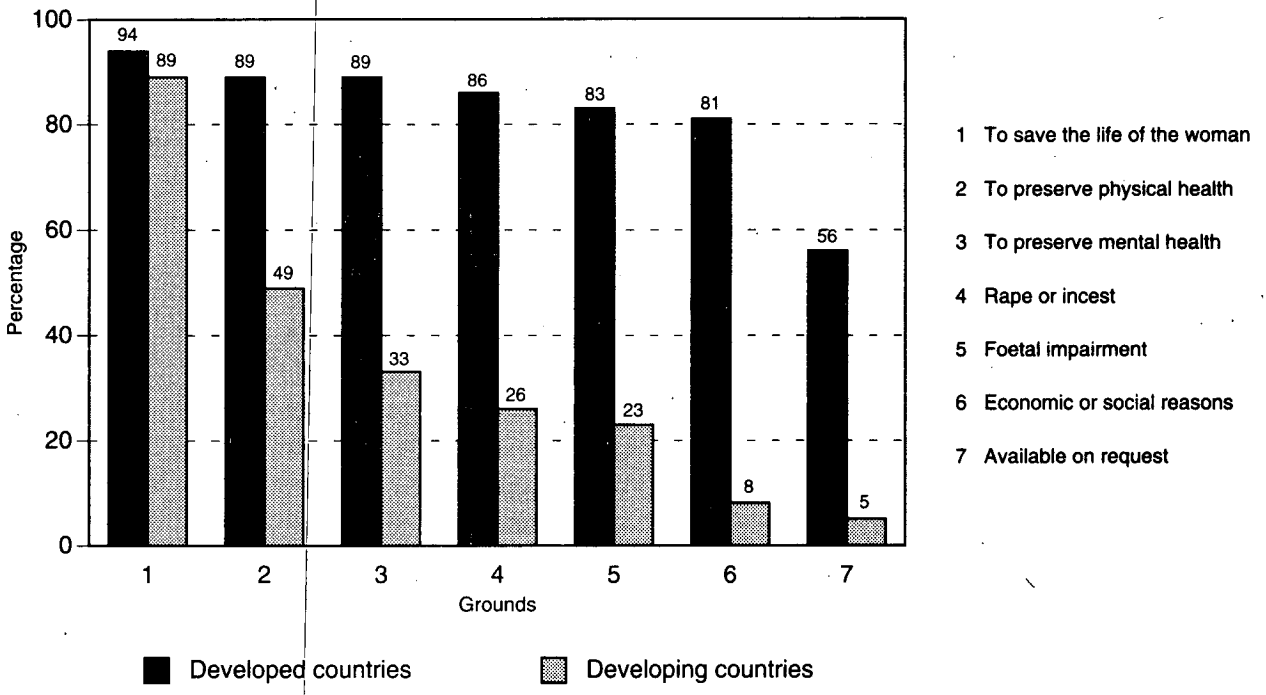
[j]Some state provisions permit abortion on these grounds. Liberal interpretation of the medical indications for abortion may allow abortion to be performed to preserve the physical health of the woman: Mexico, for grounds (2), (3) and (5).

[k]For grounds (1) to (5), the Medical Council Rules of 1976 permit abortion to preserve the physical or mental health of the pregnant woman or if there is a possibility that the child would suffer from a physical deformity.

[l]For ground (4), rate in itself is not a ground for abortion but may be taken into account under medical indications. A pregnancy occurring as a result of incest can be terminated on juridical grounds, while a pregnancy resulting from rape may be terminated under medical indications.

Figure 30. Grounds on which abortion is permitted, by level of development

(Percentage of countries)



Sources: Abortion Policies: A Global Review, vol. I, *Afghanistan to France* (United Nations publication, Sales No. E.92.XIII.3); vol. II, *Gabon to Norway* (United Nations publication, Sales No. E.94.XIII.2); vol. III, *Oman to Zimbabwe* (United Nations publication, forthcoming).

BOX 14. ABORTION: A TWO-COUNTRY PERSPECTIVE

Chile

Although under the Chilean Penal Code (12 November 1874, sections 342-345) abortion is a criminal offence on all grounds, the Health Code (Decree No. 725 of 11 December 1967, section 119) did permit therapeutic abortion to save the life of the woman or to preserve her health. The performing physician was required to obtain the written consent of two expert physicians. On 15 September 1989, however, the Government repealed section 119 of the Health Code and replaced it with a law that prohibits abortion in any circumstance (Law No. 18,826). Also, given that the Chilean Civil Code protects life from the time of conception, it was felt that abortion was unconstitutional. Anyone performing an abortion with the woman's consent is subject to up to three years in prison. A woman inducing her own miscarriage is subject to from three to five years in prison. Harsher penalties are imposed on physicians, especially if the abortion is done without the woman's consent.

France

In France, abortion is permitted if it is performed before the end of the tenth week of gestation by a physician in an approved hospital. Beyond the tenth week of gestation, it may only be performed when the pregnancy poses a grave danger to the woman's health or on eugenic grounds. In this case, two physicians must attest to the woman's health risk. The social security scheme covers 70 per cent of the costs of care and hospitalization associated with lawful termination of pregnancy. The approval in late 1988 of the Roussel-UCLAF abortion-inducing pill has facilitated access to abortion for many women. Use of the drug is closely regulated. The treatment cannot be used after the forty-ninth day of amenorrhoea and it must be taken in the presence of a physician. The patient must be examined by a physician 48 hours afterwards to be administered a prostaglandin, and again one week later to verify the termination of pregnancy. Currently, one fourth of all legal abortions in France employ RU486.

Source: Abortion Policies: A Global Review, vol. I, *Afghanistan to France* (United Nations publication, Sales No. E.92.XIII.3).

remain relatively slow to change. This situation prevails despite the fact that, of the 53 countries in Africa, 40 perceived their fertility rate as being too high. Of the remaining 13 countries, 12 viewed fertility as being satisfactory and one reported it as too low. In terms of policies to modify the rate of fertility, two countries intervene to raise fertility (Côte d'Ivoire and Gabon), one to maintain the rate (Mauritius) and 36 to lower the rate, whereas 14 countries pursue a policy of non-intervention. Since 1990, eight countries (Angola, Congo, Equatorial Guinea, Madagascar, Mali, Mozambique, Namibia, and Sao Tome and Principe) have changed their perception of national fertility trends, seven of them moving to the view that their fertility is now too high. Of the seven countries, Angola and Namibia have not yet formulated a policy to lower the rate. In Mozambique, the Frelimo Party issued a statement in July 1989 calling for a decline in natural increase in order to make the population growth rate more compatible with the pace of socio-economic development. Whereas Madagascar had not previously intervened, it currently pursues a policy to lower the rate. Concern in Madagascar for the detrimental impact of high population growth on health conditions, employment creation and rapid urbanization led to a broad-based statement on population policy, which was adopted by the Cabinet in July 1990 and incorporated into the National Population Law by the Parliament in January 1991. Key provisions of the law include reducing TFR from 6.6 births per woman in 1985-1990 to 4.0 by the year 2000, recognizing the right of Malagasy women to have access to modern methods of contraception and mandating that the Ministry of Health provide family planning services in its health-care clinics. Mali and Sao Tome and Principe, which had policies to maintain fertility, now intervene to lower the rate.

307. Various other recent developments have taken place in the region. Greatly concerned by the consequences of high population growth rates on the attainment of sustainable development, the Interministerial Technical Committee on Population in the Cameroons drafted a national population policy in 1991. The revised draft, which has been submitted to the National Population Commission for endorsement, does not contain specific demographic targets.

308. Based on an in-depth analysis conducted in 1991 of the Ghana National Family Planning Programme, the population policy of the Government of Ghana, which was adopted in 1969, is likely to be revised to incorporate some current national and global issues. In addition, it is expected that a national population council will be created to monitor and coordinate the activities of governmental and non-governmental bodies involved in population and family planning. The likely revision in policy is in part a response to studies that indicated that as of 1988, despite the fact that 79 per cent of women knew of modern contraceptive methods, only 13 per cent were using contraception and 5 per cent were using a modern method.

309. A national population policy is being formulated in Guinea, with the assistance of the National Population Commission, which was established in 1990. The absence of a national MCH/FP programme, the existence of the French anticontraceptive law of 1920 and the lack of awareness promotion among target groups are among the chief constraints hindering increased levels of family planning usage.

310. In Lesotho, following a 1990 population awareness workshop for policy makers and planners, a draft population policy was formulated. The Government committed itself to finalizing the National Population Policy by early 1992, as part of its national development efforts and recently adopted structural adjustment programme.

311. By a 1990 Act of the Malawi Parliament, the National Family Welfare Council was established to serve as advocate, coordinator and supporter of family planning and population information, education and communication, and services delivery. The Population Planning Unit has a mandate to draft a population policy to supplement the national development plan. In 1990, the Government of Rwanda, with TFR of 8.5 births per woman, adopted a national population policy which emphasizes extending family planning services to all aspects of public-health education, training personnel in family planning services and increasing the population's awareness of the socio-economic problems of

Rwanda. The objective is a population growth rate of 2.0 per cent by the year 2000, which implies TFR of 4.0 and contraceptive prevalence of 48 per cent by that time.

312. In mid-1991, Senegal adopted the Priority Action and Investment Programme for Population, which incorporates both the national family planning programme and a national programme to combat maternal mortality. The Government has been receiving international assistance so that, among other things, it could increase contraceptive prevalence from 4 to 12 per cent by 1996 and reduce TFR from 6.5 to 5.9 births per woman in 1985-1990.

313. Work has begun on drafting a national population policy for Uganda. In early 1992, a 12-member committee began analysing demographic and socio-economic data to formulate planning goals for use in drafting a population policy.

314. In the United Republic of Tanzania, the National Planning Commission drafted a comprehensive national population policy, which, as of early 1992, was awaiting adoption. The major goal of the draft policy is the reduction of TFR from an estimated 6.8 births per woman in 1985-1990 to 5.0 by the year 2000 and a more gradual decline to 3.5 by 2018. The draft also highlights improvements in the role and status of women as a major goal and recommends raising the minimum legal age at marriage from 15 to 20 years for women and from 20 to 25 years for men. The target is to reduce by 50 per cent the proportion of women marrying before age 20.

315. As concerns government policies towards access to modern methods of contraception, no country in Africa restricts access. Four countries (Djibouti, Equatorial Guinea, Gabon and the Libyan Arab Jamahiriya) do not provide any support for family planning activities and three countries (Chad, Côte d'Ivoire and Somalia) provide indirect support. The remaining 46 countries provide direct support in government facilities.

316. Although it is estimated that in 1987 only 16 per cent of married women aged 15-49 years in Africa were using contraceptives, data indicate that contraceptive use is beginning to increase in various parts of the continent.

317. The Government of Burundi, which is determined to curb the rapid population growth rate, has established the Coordination Office for the National Family Planning Programme. In 1991, the Office drew up medium-term family planning goals directed to boosting the contraceptive prevalence rate from 2 to 10 per cent by 1995, to 16 per cent by 1997 and to 21 per cent by the year 2000. The Gambia is also formulating a new population policy that emphasizes the need to strengthen family planning services in order to improve the health of women and children, as well as national economic prospects. There is also a desire to improve the contraceptive mix. The Gambia is receiving international assistance so as to increase contraceptive prevalence from 7 to 15 per cent by 1996 and to 25 per cent by the year 2000.

318. In the Niger, the national family planning programme approved a series of recommendations for improving access to contraceptives. Consequently, the provision of oral contraceptives in urban areas will be simplified and restrictions in rural zones on the re-supply of pills to village health workers will be eased. Pill acceptors at Niamey will no longer be required to undergo extensive laboratory testing after the first year of pill use. In addition, previous restrictions requiring that women have at least four living children in order to receive a prescription for injectable contraceptives was relaxed. Henceforth, women will only be required to have two living children.

2. *Asia*

319. With 59 per cent of the world population, global fertility is to a great extent determined by fertility trends in Asia. During the period 1985-1990, for example, TFR in Asia was 3.45 births per woman, while the corresponding global rate was 3.43. Containing developed, developing and least developed countries, the major area incorporates a wide spectrum of demographic diversity, including countries with fertility rates ranging from 1.7 to 7.7 births per woman.

320. Six of the 38 countries considered their fertility to be too low (Cambodia, Cyprus, Iraq, Israel, Japan and Singapore) and, except for Japan, all intervene to raise fertility levels. Fifteen countries were satisfied with their fertility rate; and of the 17 countries that considered fertility to be too high, only Afghanistan does not intervene to lower the rate. Japan and the Republic of Korea have recently modified their position. Japan, with a fertility rate that continues to edge downward (1.5 births per woman in 1989), is no longer satisfied with the rate and considers the fertility level to be too low. In 1991, the Japanese Diet approved the Child Care Leave Bill, which permits mothers and fathers to take an unpaid leave of absence from their private sector employment until the child is one year of age. In addition, the Institute of Population Problems within the Ministry of Health and Welfare conducted a survey in mid-1992 to investigate the reasons for the large increase in the number of people choosing not to marry.

321. With TFR that dropped to 1.5 births per woman in 1989, the Republic of Korea, in its Seventh Five-Year Economic and Social Development Plan for the period 1992-1996, has reoriented its population programme from one of quantitative control to one that focuses on qualitative control. Priority is being given to improving contraceptive services and integrating MCH with other health programmes. Japan and the Republic of Korea, together with Singapore, have the lowest fertility rates in the region, 1.7 or fewer births per woman; for these three countries, population ageing and its consequences for economic and social development constitute a major concern.

322. Despite major achievements in reducing fertility in various countries in the region, notably an overall fertility decline of 15 per cent between 1975-1980 and 1985-1990, 16 countries are seeking to lower fertility. For example, in Bangladesh, one of the world's most densely populated countries (an average population density of 832 people per square kilometre), preliminary results from the Contraceptive Prevalence Survey in 1991 suggest that women will readily utilize contraception if services are provided in a culturally appropriate manner, even in the absence of substantial socio-economic development. Based on pilot studies and various research, a number of innovative approaches are being adopted by the national family planning programme, including: training a cadre of female health assistants; strengthening the network of satellite clinics; introducing a new "doorstep injectable" delivery initiative; enhancing the participation of non-governmental organizations; and developing the Upazilla (subdistrict) Initiatives Project, which promotes grass-roots participation in family planning programme design and management.

323. China, with 22 per cent of the world population, expects that its population will not exceed 1.3 billion by the turn of the century, provided its population control targets are achieved. This goal is to be attained by reducing TFR

BOX 15. INDONESIA

The success of the National Family Planning Programme in bringing about significant demographic changes—fertility dropped precipitously from 5.6 births per woman during the period 1967-1970 to 3.0 in 1989-1991—has made Indonesia a model for other developing countries. The achievements of the Programme have been largely attributed to effective information, education and motivation campaigns, steady institutional development, the wide availability and broad mix of contraceptives and the large coverage of village-based health care.

An important factor has been the broad-based political support the Programme receives at all levels, from local community leaders to the highest levels of the Government. In addition, support and guidance are provided by Islamic scholars, Islamic organizations and individual imams. Christian and Hindu organizations also play an important role in the promotion of family planning in areas where religious persuasions prevail.

At the grass-roots level, community participation is highly active. Satisfied acceptors and community organizations support the promotion of family planning with their own resources.

Various ministries also take part in the Programme. The Ministry of Information has been an integral partner from the outset, using modern methods of mass communication to help disseminate family planning information. The Education Ministry has modified school curriculum from the primary grades onward, so as to teach the benefits and desirability of having small families. Adult literacy classes include explicit information on family planning services.

from 2.3 births per woman in 1990 to 2.1 by 1995. The Government reports that its family planning programme had experienced uneven success across the country, with 10 of 30 provinces and municipalities having lowered fertility to fewer than 2.1 births per woman. The rate is higher in many provinces and autonomous regions, particularly among the remote and less developed districts. The Government would like gradually to increase the average annual per capita expenditure on family planning from 1.2 yuan renminbi (¥) ($1 = 5.2 yuan) in 1991 to ¥2 by the end of the Eighth Five-Year Plan covering the period 1990-1995.

324. With a total population of 844 million in 1991 and an average annual population growth rate of 2.1 per cent for the period 1981-1991, the Government of India expects a delay of 10-15 years in achieving its target of replacement-level fertility. Originally, it had hoped to reach this target by the year 2001.

325. The most recent development in Indonesia (see box 15) in the field of population was the passage in March 1992 of the Law on Population Development and Prosperous Families, which concerns the management of population dynamics and the development of family well-being. To compensate for the fact that population has been viewed mainly in quantitative terms, the new law recognizes the five dimensions of population, i.e., the individual, the family, social groups and citizens, in addition to population numbers.

326. The Government of Malaysia, concerned that its population policy has been misunderstood by the international community, has on several occasions reiterated its policy. For example, in June 1991, the Minister for National Unity and Social Development described the policy as one that seeks to achieve an optimum population of 70 million by the year 2100. The strategy is to moderate the decline in the fertility rate, so that the onset of replacement-level fertility would be delayed until the year 2070. To achieve this goal, a comprehensive family planning programme has been formulated in the Sixth Malaysia Development Plan for the period 1991-1995. The aim is to improve the quality of the population through family-centred development policies and programmes. Among the targets included in the Sixth Malaysia Plan is the recruitment of 750,000 new acceptors in the family planning programme.

327. In an effort to reduce infant and maternal mortality without drastically lowering population growth, the Government of Mongolia has embarked on a programme of birth-spacing. Women are being encouraged to space births at three-year intervals and to complete child-bearing by age 35.

328. Recognizing that national development in Nepal is not possible without substantial fertility reductions, the draft of the Eighth Development Plan for Nepal, covering the period 1990-1995, specified a target of lowering the fertility rate from 6.0 births per woman in 1985-1990 to 4.0 by the end of the plan period. The same target had been specified for the end of the previous plan period, the Seventh Plan, 1985-1990.

329. Thailand, in its Seventh Five-Year National Economic and Social Development Plan for 1992-1996, has the goal of lowering the population growth rate to 1.2 per cent by 1996 by increasing the contraceptive prevalence rate to 77 per cent in all regions of Thailand and reducing the percentage of women having their first child before age 20 from 15 to 10 per cent. The very successful National Family Planning Programme in Thailand contributed to reducing TFR from 4.3 births per woman in 1975-1980 to 2.6 in 1985-1990. In the southern part of the country, which has the lowest contraceptive prevalence rate (45 per cent in 1990), the family planning programme is promoting the acceptance of birth-spacing. Religious leaders, teachers, traditional birth attendants and village health communicators have figured prominently in activities that have emphasized birth-spacing rather than fertility limitation. Thailand is also for the first time providing a wide-ranging social security scheme, which became effective in early 1991. Among the benefits are a maternity grant for up to two births.

330. In Viet Nam, the National Committee for Population and Family Planning specified a series of population targets in November 1990, among which are a reduction in TFR from 4.4 births per woman in 1985-1990 to 2.8 by the year 2000 and an increase in the contraceptive prevalence rate from 42.5 per cent in 1990 to 50.5 by 1995.

331. Various developments have also taken place in Western Asia. For example, Jordan is attempting to reduce TFR from 6.1 births per woman in 1985-1990 to 4.8 by 1996 and to increase contraceptive prevalence from 35 to 43 per cent. To achieve those objectives, the Government would like to increase modern contraceptive prevalence and to improve the method mix, including an increase in the use of more reliable methods. It has been found that discontinuation rates among family planning users are high, especially among the 25 per cent of Jordanian women using traditional contraceptive methods.

332. In formulating the 1991-1993 socio-economic development plan of the Syrian Arab Republic, a primary concern

of planners was to create a balance between the supply of and demand for labour and to curb rural-urban migration. To achieve those goals, compulsory education up to the ninth grade is being emphasized, as well as an expansion of vocational training and increased participation of women in economic development. It is expected that those measures will have a significant impact on the demographic situation of the country, including an increase in the average age at first marriage and a reduction of the total fertility rate. Projects are under way to expand MCH/FP services on a nationwide basis and to reduce TFR from 6.7 to 4.9 births per woman by the year 2000.

333. In September 1989, Turkey launched its first venture into the commercial marketing of modern contraceptives. The programme is designed to increase the availability and use of quality, low-cost contraceptives, by maximizing the use of commercial distribution channels and the participation of the private sector.

334. The Government of Yemen, beset by a host of environmental, socio-economic and demographic problems, following unification of the country, officially endorsed a set of national population goals for the year 2000 in August 1991. As enunciated in the new National Population Strategy and Proposed Action Plan, the national objectives are to reduce the current TFR, 7.7 births per woman in 1985-1990, the highest in Western Asia, to 6.0 by the year 2000. This goal is to be attained by raising the contraceptive prevalence rate from 3.5 per cent in 1991 to 35 by 2000. The plan commits the Government to promoting family planning, especially for men, raising awareness of the right to family planning, encouraging community involvement in family planning activities and including contraceptives on the national list of essential drugs.

3. *Europe*

335. The European regions as a whole continue to be characterized by below-replacement fertility, with a rate of 1.7 for the period 1985-1989, which represents a decline of 14 per cent since 1975-1980. Despite the persistence of such low fertility, some degree of heterogeneity may be observed among the countries. In seven countries, fertility is at the replacement level, 2.1 births per woman, or above it; and among several countries, particularly in Northern Europe, a slight recovery in fertility has occurred. In Eastern Europe, by contrast, fertility rates are continuing the steady declines of the past decade in a climate of general economic uncertainty marked by growing unemployment and inflation.

336. According to annex table A.5, of the 39 countries in Europe, 13 perceived fertility as being too low; 11 of them have policies in place to raise the rate. Of the 26 remaining countries, 25 were satisfied with the rate; 7 intervene to maintain the rate and one to raise it, while 17 countries pursue a non-interventionist stance.

337. Profound political changes, coupled with severe economic difficulties, have brought about significant modifications in family planning and abortion policies in Europe, particularly in Eastern Europe. For example, prompted by the detrimental impact of illegal abortions on maternal and child health, the Ministry of Health of Albania issued a directive in 1991 that substantially broadened the grounds on which abortions are permitted. Abortion is currently permitted upon request by couples, as well as at the request of a pregnant woman when the pregnancy is conceived outside of marriage. The country is receiving international assistance in order to strengthen gynaecological and obstetric care and to create a national family planning programme. Family planning services will be provided at all maternity clinics and women's health centres, and contraceptives will be available at all pharmacies.

338. In Bulgaria, abortion legislation came into force in 1990 which removed all restrictions concerning childbearing history, age and marital status. Abortion continues to be available at low cost, while contraceptives are becoming prohibitively expensive.

339. One of the last acts of the Czechoslovak Parliament was to revise legislation concerning health care. Under the new legislation, which entered into force following the division of the country into the Czech Republic and Slovakia in January 1993, abortions that are not performed on therapeutic grounds are considered to be non-essential and thus are not covered by the national health insurance scheme. The cost of such a procedure is approximately $115, representing one month's average salary.

340. Ruling on the constitutionality of the abortion law in late 1991, the Constitutional Court of Hungary requested the Parliament to formulate a new abortion law by December 1992, and at that time the Parliament did revise the abortion law. Under the new law, a woman can obtain an abortion up to the first 12 weeks of pregnancy if she states that the pregnancy has caused a serious crisis for her. An abortion is legal beyond the first trimester in certain circumstances, for example, if there is a misdiagnosis of the pregnancy, if the woman is under age 18 or in cases of genetic or teratogenic risk. The new law also introduces a compulsory consultation with a nurse, who must inform the pregnant woman of the conditions and effects of abortion, as well as of the possibilities for assistance if the choice is made to carry the pregnancy to term. An abortion performed for medical reasons is free of charge; otherwise, the fee is 5,000 forints. This fee can be reduced according to the economic status of the family.

341. In Poland, obtaining an abortion became extremely difficult following the announcement in December 1991 of the Code of Medical Ethics adopted by the Second National Congress of Physicians. The code banned abortion and threatened to exclude from the practice of medicine any physician who performed an abortion. Consequently, hospitals stopped performing the procedure. In February 1993, the Polish Parliament approved and the President signed a compromise law on Family Planning, Protection of the Human Fetus and Conditions for Legal Abortions. Under the new legislation, abortion is permitted only when the pregnancy threatens the life or health of the mother, when prenatal testing determines that there is serious and irreversible malformation of the foetus or when the pregnancy is the result of rape or incest. The law does not provide punishment for the women even if the abortion is self-induced. Physicians, however, face two years of imprisonment for carrying out an illegal abortion. Included in the law is a commitment to introducing sex education in school curricula. The new law represents a compromise, given that the draft legislation, as originally submitted to the Parliament, would have banned virtually all abortions, the only exception being in cases where the life of the mother was at risk.

342. One of the first acts of the new Government of Romania, upon assuming power in 1989, was to repeal the prohibition against abortion and to permit the importation and sale of contraceptives. Due to a continuing shortage of contraceptives, a reported 992,000 abortions were performed in 1990, exceeding the number of births by a ratio of 3:1 and contributing to a decline in the birth rate. In mid-

1991, the Government substantially increased the cost of an abortion.

343. Activity in the area of abortion legislation, however, has not been limited to Eastern Europe. For example, in 1990 and 1991, the highest administrative court of France ruled on the legality of rules regulating the use of RU486, the abortion-inducing pill. The Court ruled that the Government had properly issued rules concerning the use of the drug and that the rules did not violate "right to life" provisions of international treaties. The effect of the court's decision was to affirm both the legality of RU486 and the procedures that had been established for regulating abortion services.

344. In Germany, the issue of how to integrate the abortion legislation prevailing in the five eastern states of the former German Democratic Republic with the relatively more restrictive legislation of the 11 western states was thought to have been resolved with the passage of a new abortion law by the Bundestag in June 1992. The new law permitted abortion in the first three months of pregnancy if the woman declared that she was in a state of distress and received official counselling. However, this law was submitted to the Federal Constitutional Court in order to explore its compatibility with the Basic Law of the State (Constitution) and, in particular, to decide if the counselling offered adequate protection for the foetus, in line with its decision of February 1975. In August 1992, the Court suspended application of the new law pending its decision, which was announced on 28 May 1993. In its decision, the Constitutional Court ruled that the proposed new abortion law was unconstitutional because it did not protect the life of the unborn. According to the Court, an abortion may be performed only in exceptional circumstances and the compulsory counselling must be an active effort to dissuade the pregnant woman from having an abortion; however, the pregnant woman and the physician performing an abortion will not be prosecuted, even though the abortion is illegal. One of the implications of this ruling is that an abortion performed for other than medical, eugenic or ethical reasons will not be subsidized under compulsory health insurance. This will not apply to women living on social aid. In addition, the court made it clear that the right of the unborn child is to take precedence over the right of the woman to self-determination. This will have an impact on family planning counsellors, who will now be required by law to offer only counselling geared to the protection of unborn life. The counselling given in many centres, in which all alternatives are considered, is now illegal. The Court ruling was to take effect on 16 June 1993. As a consequence of this ruling, the German Parliament will have to formulate a new abortion law in harmony with the guidelines set by the Constitutional Court.

345. In a case that attracted considerable attention, the Irish Supreme Court in February 1992 overruled an injunction forbidding a pregnant 14-year old girl from travelling to the United Kingdom for an abortion. In Ireland, the ban on abortion forbids carrying out the procedure in almost all circumstances except to save the mother's life.

346. In July 1991, the United Kingdom became the second country, France being the first, to approve the use of the abortion pill RU486. The distribution of the pill is subject to strict controls, confining its use to National Health Service gynaecological units.

347. In newly independent Estonia, Latvia and Lithuania, now considered a part of Northern Europe, total fertility rates continue to decline. In Estonia, for example, TFR declined from 2.2 children per woman in 1989 to 1.9 in 1991. Shortly after achieving independence in 1991, Estonia implemented a host of measures to deal with the unsatisfactory demographic developments in the country. The measures, which are quite similar to those that had been granted under the former USSR, include birth grants, maternity benefits and family allowances, as well as early retirement for working women with at least five children. Lithuania, also concerned about the decline in total fertility, enacted a series of measures in 1989 to help women with children participate in labour-market activities. Another major concern shared by the three countries is the extremely high incidence of abortion. Data from Estonia indicate that in 1991, 151 abortions were performed for every 100 live births.

4. *Latin America*

348. Latin America, with 33 countries, has experienced sharp declines in fertility. For example, TFR fell from 4.4 births per woman during the period 1975-1980 to 3.3 during 1985-1990, a decline of 25 per cent and the sharpest decline experienced by any major area during that period. Only Uruguay considered its fertility level to be too low and has a policy intended to boost fertility. Of the 14 countries that reported being satisfied with their levels of fertility, two countries are interventionist: Barbados has a policy to maintain the level; and Colombia has one to lower it. The remaining 18 countries were dissatisfied because their levels of fertility are too high, and, excluding Bolivia and Saint Lucia, all have policies to lower fertility.

349. Support for family planning activities continues to be strong in Latin America. All Governments provide support for contraception either directly (30 countries) or indirectly (Argentina, the Bahamas and Belize).

350. In announcing the results of the 1992 census, the President of Bolivia is reported to have said that the country can dispense with supporting family planning, given that the population size was smaller than had previously been estimated. According to results announced in July 1992, the total population was 6.3 million. Previous estimates had placed the population at 7 million.

351. The new Constitution of Colombia, adopted in July 1991, includes provisions recognizing the right of couples to decide freely and responsibly the number of children they want. The Constitution also includes provisions that recognize women's equality of rights and opportunities, protect women against violence in the family, guarantee pregnancy allowances and allow civil divorce for religious marriages.

352. In Peru, 1991 was designated as the Year of Austerity and Family Planning, reflecting the Government's intention concurrently to undertake strict new economic policies and to bring about a reduction in the fertility level. Family planning efforts are reported to be hampered by the state of the Peruvian economy. A general strike in 1991, which affected the Ministry of Health, has had a negative impact on the provision of family planning services. In addition, a cholera epidemic, which led to over 2,000 deaths, absorbed a portion of the resources that would have been directed towards family planning programmes. Despite the difficulties, the National Population Programme for 1991-1995 has been formulated, the major aim of which is to lower the annual rate of population growth from 2.1 per cent in 1985-1990 to 1.9 by 1995. This objective is to be achieved by raising the contraceptive prevalence rate from 23 to 42 per cent and by reducing TFR from 4.0 births per woman in 1985-1990 to 3.4 by 1995. The primary goals of the programme are the provision of family planning information and the free distri-

bution of contraceptives, such as IUDs, condoms and pills, in public-health facilities.

5. *Northern America*

353. With TFR of 1.7 and 1.9 births per woman, respectively, the two countries of Northern America, Canada and the United States of America, viewed their fertility as being satisfactory and do not intervene to modify the rate. In January 1991, the Canadian Senate declined to approve the Government's proposed abortion bill, which had already been approved by the House of Commons. The bill would have permitted abortion only when "the health or life of the woman would be likely to be threatened". The bill specified that the term "health" included physical, mental and psychological health. After the defeat of the bill, the Government announced that it did not intend to introduce new legislation. This situation is expected to result in significant provincial legislative and judicial activity throughout Canada.

354. In ruling on the constitutionality of a restrictive Pennsylvania abortion law in June 1992, the United States Supreme Court upheld the *Roe* v. *Wade* ruling of 1973, which guaranteed women the fundamental right to abortion. The Court, however, allowed certain restrictions in the law to remain, such as mandatory parental or judicial approval for minors and a 24-hour waiting period following a discussion involving a description of the abortion and its alternatives. Mandatory partner notification was struck down by the Court. In a test case involving the French abortion pill, RU486, the United States Supreme Court in July 1992 upheld a lower court ruling that bars the importation of RU486 and any other drug that has not yet been approved by the United States Food and Drug Administration. Reversing a 1978 decision that had restricted Depo-Provera, the injectable contraceptive, to non-contraceptive treatments, the Food and Drug Administration approved its use as a contraceptive in October 1992. On the issue of family leave, the United States Senate voted in August 1992 to require companies with at least 50 employees to provide up to 12 weeks of unpaid family and medical leave. The House of Representatives approved the measure in September 1992, but the bill was vetoed by the President of the United States later that month. Under the new administration, the bill was submitted once again to Congress, which passed it in February 1993; it was then immediately signed into law by the President.

6. *Oceania*

355. Of the 13 countries in Oceania, nine perceived their rates of fertility as too high, while four countries were satisfied with the rate. Among recent developments in the area was the adoption of a national population policy by the Government of Papua New Guinea in 1991. Recognizing the detrimental consequences of the demographic trends, the Government, in its newly formulated policy, hoped to achieve sustainable development and to implement an integrated population and development programme. To ensure effective dialogue and coordination in programme implementation among government agencies and non-governmental organizations, the National Population Council was established. The hope is that improved coordination will enhance the effective delivery of quality family planning services to local communities and increase the low contraceptive prevalence rate. The objectives are to increase the number of new female acceptors to 5 per cent of the target population by 1995 and the proportion of acceptors continuing to use family planning to 50 per cent. In July 1990, the Australian Industrial Relations Commission ruled that paternity leave of up to 51 weeks can be taken in lieu of the spouse's maternity leave. Male employees opting to take paternity leave will have the same job protection and will be subject to the same conditions as those which currently apply to maternity leave, including the requirement of 12 months of previous continuous employment. To facilitate the labour-market participation of families with dependent children, the Australian Government has committed itself to the affordability, supply and quality of child-care services. The number of child-care places has trebled from 46,000 during the period 1982-1983 to 168,000 in 1990-1991, with an additional 50,000 places targeted by 1995-1996.

7. *Union of Soviet Socialist Republics (former)*

356. With the breakup of the Soviet Union into 15 independent countries, a number of pressing needs have become apparent in the area of fertility and family planning. Among the findings of a United Nations/World Health Organization/United Nations Children's Fund mission sent to the region in February 1992 was that all Governments acknowledged the urgent need to strengthen family planning programmes. Severe shortages of reliable contraceptives have resulted in some of the highest rates of induced abortion in the world. Available data suggest a contraceptive prevalence rate of 30 per cent, with the overwhelming majority of women relying upon more traditional, less reliable methods, such as withdrawal and rhythm. The Governments formally and explicitly expressed their desire to strengthen family planning services in the Tashkent Appeal for Partnership, which was signed by the Governments of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan, the five former republics with the highest fertility rates. Emergency shipments of IUDs have been requested by the Governments in order to replace defective, locally manufactured devices.

357. To cope with the problems posed by the early onset of sexual activity among youth, unintended pregnancies, excessive rates of induced abortion, AIDS and female and male genital diseases, the Committee for the Family and Demographic Policies of the Russian Federation elaborated the State Programme on Family Planning for 1991-1995. Among the measures to be incorporated in the Programme are the creation of a family planning service, the reorganization of training for family planning experts and medical personnel, the development of school curricula to deal with sex education, the creation of information activities involving television, radio and other media and the local production of contraceptives. It is hoped that the programme will lead to a reduction of from 15 to 20 per cent in the number of induced abortions performed each year.

NOTES

[1] The discussion of fertility changes in this chapter is based on the total fertility rates presented in table 26. These rates are period measures of current fertility based on the summation of age-specific fertility rates for a hypothetical cohort of women aged 15-49 years. Unless otherwise noted, all references to fertility and fertility rates refer specifically to total fertility rates. All rates from table 26 are annual averages for the designated five-year periods and are formulated by the Population Division of the Department for Economic and Social Information Policy Analysis of the United Nations Secretariat, for its medium-variant projections. Data from table 27 are generally derived from birth registration statistics. Observed fertility data for all individual countries are presented in annex table A.2, but since they are derived from a variety of sources and estimating procedures, they are not discussed here because of data unavailability for certain countries and lack of comparability of data for other countries.

[2]Replacement fertility is defined as an average TFR of 2.1 births per woman, under conditions of mortality prevailing in the more developed regions.

[3]Large cohorts of births not only contribute to population increase but also produce subsequently large cohorts of young adults around the ages of peak fertility, which in turn has a positive effect on the number of births (Horiuchi, 1991).

[4]Studies in the less developed regions show that countries with a strong family planning programme have a greater probability of experiencing fertility decline than countries with a weak programme or no programme; and that the higher the level of social and economic development, the greater the impact of the family planning programmes on fertility (Mauldin and Ross, 1991).

[5]For a list of countries classified as least developed by the General Assembly of the United Nations, see Explanatory notes in this volume.

[6]Tunisia, in particular, has greatly contributed to the low fertility level of Northern Africa. In 1988, about 50 per cent of currently married women in Tunisia were reported to use a contraceptive method (United Nations, 1991).

[7]The area of the former Union of Soviet Socialist Republics currently comprises: (*a*) the three Baltic States (Estonia, Latvia and Lithuania); and (*b*) the 12 republics that have constituted themselves into the Commonwealth of Independent States (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Republic of Moldova, Russian Federation, Tadjikistan, Turkmenistan, Ukraine and Uzbekistan).

[8]Total fertility rates taken from *World Population Prospects: The 1992 Revision* (United Nations, 1993c).

[9]It should be borne in mind that the total fertility rate as a fertility indicator has undoubtedly been affected by changes in the timing of births and that some, if not most, of the estimated increments observed may simply reflect the stabilization of the various patterns of cohort fertility behaviour in cross-sectional data.

[10]By better prenatal care of pregnant women.

[11]Recent analyses confirm that the age structure of population changed in favour of higher birth rates as large generations entered the peak child-bearing ages (Horiuchi, 1992).

[12]The effect of the number of women aged 15-49 years is, of course, subject to prevailing marriage norms, family size norms and prevalence of contraceptive use by women of reproductive age in the most fertile age groups that are exposed to the risk of conception. Although the prevalence of women of reproductive age that want no more children is reported to be sometimes quite high (UNFPA, 1992), various fertility surveys have also observed that among women stating that they do not want additional children, some proportions of them nevertheless do not practise contraception (Johnson-Acsadi and Szykman, 1984).

[13]It should be borne in mind that the particular age structure of this category of women is of major importance because age-specific fertility varies during the duration of the woman's fecund life. Moreover, the proportion of women married within each age group is also a basic factor in all cultures where marriage constitutes a prerequisite of procreation.

[14]Africa as a whole is emerging as the major area with the highest fertility potential and this potential will but increase in coming decades. As a result of the continuing high fertility in Africa, the proportion of women aged 15-49 years among all women is expected to rise further, from 46.1 per cent in 2000 to over 51 per cent in 2025 (United Nations, 1992c).

[15]Average dates calculated by weighting individual survey dates by the number of married women of reproductive age in each country.

[16]Countries with trend information include approximately 80 per cent of married women of reproductive age in the less developed regions and 50 per cent in the more developed regions.

[17]Burundi, the Central African Republic, Côte d'Ivoire, Guinea-Bissau, Kenya, Lesotho, Mauritius and Togo.

[18]Surveys conducted by the DHS programme in sub-Saharan Africa between 1986 and 1991 showed that under one third of women aged 15-49 had heard of the condom in Burundi, Liberia, Mali, Nigeria, Senegal and Uganda, and fewer than 3 per cent had ever used condoms. In four more countries—Cameroon, Ghana, Togo and Kenya—between 37-53 per cent had heard of condoms and 3-8 per cent had ever used them. Levels of knowledge were higher in Botswana (87 per cent of women) and Zimbabwe (77 per cent), and 10-13 per cent had used condoms.

[19]The estimates of contraceptive availability are approximate estimates based on country-specific estimates provided by knowledgeable observers. For details, see Lapham and Mauldin (1984) and Mauldin and Ross (1991).

[20]The estimate of unmet need includes women that do not want more children or want to delay having a birth for at least two years, are not currently using contraception and are currently at risk of pregnancy, plus an allowance for women that are temporarily not at risk (because of pregnancy or post-partum amenorrhea) as the result of an unwanted pregnancy. Different analysts, although agreeing that the measure of unmet need should take into consideration the latter women, have devised different measures which produce estimates of unmet need that differ, on average, by about 5 per cent of married women; the difference is, however, considerably larger in a few cases (see Bongaarts, 1991, 1992; Westoff and Ochoa, 1991; Westoff, 1992). The unweighted average level estimate of unmet need for 25 primarily Latin American countries studied by Westoff and Ochoa (1991) was 24 per cent, which would correspond to roughly 20 per cent using the measure developed by Bongaarts (1991).

[21]In 11 surveys conducted in sub-Saharan countries in the late 1980s, on average about one fourth of the married women of child-bearing age wanted no more children (Westoff, 1991). This figure is much lower than the comparable proportion in other countries surveyed by DHS, where the average was about 60 per cent. But it represents an increase of 6-9 percentage points compared with surveys conducted in the late 1970s or early 1980s in the cases of Botswana, Ghana, Senegal and northern Sudan, and 23 points in Kenya. For sub-Saharan countries where trends could be compared, only in Zimbabwe was no upward trend evident (but over a period of only four years).

TABLE A.2. TOTAL FERTILITY RATES AROUND 1980 AND 1990 AND ANNUAL PERCENTAGE CHANGE, COUNTRIES WITH POPULATION OF 300,000 OR MORE

Major region and country or area	Around 1980		Around 1990		Annual percentage change[a]
	Period	Total fertility rate	Period	Total fertility rate	
Africa					
Eastern Africa					
Burundi	1978/79	6.4	1982-1987	7.0[b]	1.4
Comoros[c]	..	..	1979/80	7.1	..
Djibouti	..	..	..	..	..
Ethiopia	1980/81	6.8	1990	7.7	1.4
Kenya	1977/78	8.1	1984-1989	6.7[b]	−1.9
Madagascar	1980	6.6	..	..	..
Malawi	1983/84	7.8	..	..	..
Mauritius[d]	1979-1981	2.9[e]	1985-1987	2.0[e]	−5.2
Mozambique	1975-1980	6.5[b]	..	..	..
Réunion	1979-1981	3.0[e]	1986	2.7	−1.7
Rwanda	1978-1983	8.5[b]	..	..	..
Somalia	1980	7.4	..	..	..
Uganda	1983/84–1988/89	7.3[b]	..	..	..
United Republic of Tanzania	1973-1978	7.0[f]	..	..	..
Zambia	1975-1980	7.2[b]	..	..	..
Zimbabwe	1981	5.8	1983-1988	5.7[b]	−0.4
Middle Africa					
Angola	..	..	..	..	..
Cameroon	1976	6.0	..	..	..
Central African Republic	..	..	..	..	..
Chad	..	..	..	..	..
Congo	1984	5.9	..	..	..
Equatorial Guinea	1982	5.5	..	..	..
Gabon	..	..	..	..	..
Zaire[g]	..	..	..	..	..
Northern Africa					
Algeria	1980	7.0	1982-1986	6.1[b]	−3.3
Egypt	1975-1980	5.3[b]	1983-1988	4.7[b]	−1.4
Libyan Arab Jamahiriya	..	..	..	..	..
Morocco	1974/75–1979/80	5.9[b]	1982-1987	4.6[b]	−2.8
Sudan[h]	1974/75–1978/79	5.9[b]	1985/86–1989/90	5.0[b]	−1.4
Tunisia	1979-1981	5.3[b]	1983-1988	4.4[b]	−3.1
Southern Africa					
Botswana	1981	6.8	1983-1988	5.0[b]	−5.9
Lesotho	1975-1977	5.9[b]	..	..	..
Namibia	..	..	..	..	..
South Africa	..	..	1982-1989	4.6[b]	..
Swaziland	1975/76	6.9	..	..	..
Western Africa					
Benin	1977-1982	7.1[b]	..	..	..
Burkina Faso	..	..	..	..	..
Cape Verde	1980	5.2	1985	4.7	−1.9
Côte d'Ivoire	1978/79	6.9[b]	..	..	..
Gambia	..	..	..	..	..
Ghana	1977-1979	6.6[b]	1983-1988	6.4[b]	−0.4
Guinea	..	..	..	..	..
Guinea-Bissau	..	..	..	..	..
Liberia	1981-1986	6.6[b]	..	..	..
Mali	1982-1987	6.9[b]	..	..	..
Mauritania	1976-1981	6.2[b]	1984/85-1989/90	4.4[b]	2.5
Niger	..	..	..	..	..
Nigeria	1977-1982	6.3[b]	1987-1990	6.2[b]	−0.2
Senegal	1976-1978	7.1[b]	1981-1986	6.6[b]	−1.0
Sierra Leone	..	..	..	..	..
Togo	..	..	1983-1988	6.6	..
Asia					
Eastern Asia					
China[i]	1980	2.2	1990	2.3	0.1
Democratic People's Republic of Korea	..	..	..	..	..
Hong Kong	1978-1982	2.2[e]	1988-1990	1.3[e]	−4.7
Japan	1978-1982	1.8[e]	1988-1990	1.6[e]	−1.2
Mongolia	..	..	..	..	..
Republic of Korea	1978-1982	2.7[e]	1988-1990	1.6[e]	−4.3

TABLE A.2 *(continued)*

Major region and country or area	*Around 1980*		*Around 1990*		*Annual percentage change*[a]
	Period	*Total fertility rate*	*Period*	*Total fertility rate*	
South-eastern Asia					
Cambodia	..	..	..	..	..
East Timor	..	..	..	..	..
Indonesia	1980	4.3	1982-1987	3.4[b]	−4.5
Lao People's Democratic Republic	..	..	1988-1990	6.8[b]	..
Malaysia[j]	1978-1982	3.9[e]	1985-1987	3.7[e]	−0.9
Myanmar	1982	4.7	..	..	..
Philippines	1984	3.4	1988	3.3	−0.1
Singapore	1978-1982	1.8[e]	1988-1990	1.9[e]	0.8
Thailand	1980-1981	3.7[e]	1989	2.4	−4.1
Viet Nam	1978-1982	4.5[e]	1988/89	4.2	−0.9
Southern Asia					
Afghanistan	1979	7.6	..	..	..
Bangladesh	1980	6.4	1986/87-1988/89	4.8[b]	−3.3
Bhutan	1984	5.9	. .	..	..
India	1980	4.4	1987	4.1	−1.1
Iran (Islamic Republic of)	..	..	..	..	..
Nepal	1981	6.3	1985/86	6.0	−1.1
Pakistan	1979/80	6.5	1984/85–1990/91	5.4[b]	−2.1
Sri Lanka	1978-1982	3.7[e]	1982-1987	2.8[b]	−5.6
Western Asia					
Bahrain	. .	..	1989	4.1	..
Cyprus	1978-1982	2.4[e]	1986-1988	2.4[e]	−0.2
Democratic Yemen[k]	..	..	..	..	..
Iraq	1977	4.1	1988/89	5.3	2.5
Israel[l]	1978-1982	3.1[e]	1985-1989	3.1[e]	−0.2
Jordan[m]	1981-1983	6.6[b]	1987-1990	5.6[b]	−2.3
Kuwait	1978-1980	5.6[e]	1986	4.0	−3.9
Lebanon	..	..	..	..	..
Oman	..	..	1988/89	7.8	..
Qatar	..	..	1987	4.2	..
Saudi Arabia	..	..	1986/87	6.5	..
Syrian Arab Republic	1976-1978	7.5[b]	..	..	..
Turkey	1978-1983	4.2[b]	1985-1988	3.8[b]	−1.6
United Arab Emirates	1980-1981	5.3[e]	1986/87	5.9	−1.6
Yemen[k]	1980-1981	7.9[b]	..	..	..
Europe					
Eastern Europe					
Bulgaria	1978-1982	2.1[e]	1989-1990	1.8[e]	−1.4
Czechoslovakia	1978-1982	2.2[e]	1988-1991	2.0[e]	−1.2
German Democratic Republic[n]	1978-1982	1.9[e]	1988-1991	1.5[e]	−2.2
Hungary	1978-1982	1.9[e]	1988-1990	1.8[e]	−0.7
Poland	1978-1982	2.3[e]	1988-1991	2.1[e]	−0.9
Romania	1978-1982	2.4[e]	1988-1991	2.0	−1.9
Northern Europe					
Denmark[o]	1978-1982	1.5[e]	1988-1991	1.6[e]	0.6
Finland	1978-1982	1.7[e]	1988-1991	1.7[e]	−0.4
Ireland	1978-1982	3.2[e]	1988-1991	2.2[e]	−3.3
Norway	1978-1982	1.7[e]	1988-1991	1.9[e]	1.0
Sweden	1978-1982	1.6[e]	1988-1991	2.1[e]	2.7
United Kingdom	1978-1982	1.8[e]	1988-1991	1.8[e]	0.1
Southern Europe					
Albania	1981-1983	3.4[e]	1988-1990	3.0[e]	−1.7
Greece	1978-1982	2.2[e]	1988-1991	1.5[e]	−3.5
Italy	1978-1982	1.7[e]	1988-1991	1.3[e]	−2.5
Malta	1978-1982	2.1[e]	1986-1988	2.0[e]	−0.5
Portugal	1978-1982	2.2[e]	1988-1991	1.5[e]	−3.3
Spain	1978-1982	2.2[e]	1988-1991	1.3[e]	−4.2
Yugoslavia[p]	1978-1982	2.1[e]	1988-1989	1.9[e]	−1.1
Western Europe					
Austria	1978-1982	1.6[e]	1988-1991	1.5[e]	−1.1
Belgium	1978-1982	1.7[e]	1988-1991	1.6[e]	−0.7
France	1978-1982	1.9[e]	1988-1991	1.8[e]	−0.6
Germany, Federal Republic of[n]	1978-1982	1.4[e]	1988-1990	1.4[e]	−0.1
Luxembourg	1978-1982	1.5[e]	1988-1991	1.6[e]	−0.5
Netherlands	1978-1982	1.6[e]	1988-1991	1.6[e]	−0.1
Switzerland	1978-1982	1.5[e]	1988-1991	1.6[e]	0.3

TABLE A.2 *(continued)*

Major region and country or area	*Around 1980*		*Around 1990*		*Annual percentage change*[a]
	Period	*Total fertility rate*	*Period*	*Total fertility rate*	
Latin America					
Caribbean					
Cuba	1979-1981	1.7[e]	1985-1987	1.8[e]	1.4
Dominican Republic	1981-1986	3.8[b]	..	..	..
Guadeloupe	1978-1980	3.3[e]	1985	2.6	−3.4
Haiti	1982-1983	6.2	1988/89	6.0	−0.5
Jamaica	1982	3.3	1986-1988	2.9[b]	−2.3
Martinique	1979-1981	2.9[e]	1986	2.3	−3.4
Puerto Rico	1980-1982	2.6[e]	1988	2.4	−1.1
Trinidad and Tobago	1980	3.2	1982-1987	3.2[b]	−0.5
Central America					
Costa Rica	1978-1982	3.8[e]	1985-1990	3.4	−1.4
El Salvador	1980/81	4.8	1988	4.6	−0.6
Guatemala	1975-1977	5.8[e]	1982-1987	5.6[b],[e]	2.7
Honduras	1981	5.2	1986/87	5.6	1.4
Mexico	1979	4.6	1986	3.8	−2.6
Nicaragua	1980/81–1985/86	5.8[b]	..	..	..
Panama	1978-1982	3.6	1989	2.9[q]	−2.3
South America					
Argentina	1979-1980	3.5[e]	..	..	..
Bolivia	1976-1980	5.6[b]	1984-1989	5.1[b]	..
Brazil	1980	4.4	1983-1986	3.5[b]	−4.3
Chile	1978-1982	2.5[e]	1989	2.6[e]	0.3
Colombia	1981-1986	3.4[b]	1987-1990	2.9[b]	−2.7
Ecuador	1975-1979	5.4[b]	1984-1989	3.8[b]	−3.1
Guyana	1980/81	3.2	..	..	..
Paraguay	1974-1979	5.0[b]	1987/90	4.7	−0.4
Peru	1980-1982	5.2[b]	1991-1992	3.5[b]	−3.1
Suriname	..	..	..	..	..
Uruguay	1978-1980	2.7[e]	1985	2.5	−1.5
Venezuela	1978-1982	4.3[e]	1986-1987	3.4[e]	−3.1
Northern America					
Canada	1978-1982	1.7[e]	1985-1988	1.7[e]	−0.6
United States of America	1978-1982	1.8[e]	1988-1990	2.1[e]	1.5
Oceania					
Australia–New Zealand					
Australia	1978-1982	1.9[e]	1986-1989	1.9[e]	−0.6
New Zealand	1978-1982	2.1	1985-1987	2.0[e]	−0.6
Melanesia					
Fiji	1978-1982	3.4[e]	1985	3.2	−1.5
Papua New Guinea	1979/80	6.0	..	..	..
USSR (former)	1978/79–1982/83	2.3	1987-1988	2.5[e]	1.3

Sources: The list of sources follows the table notes.

[a]Annual percentage change may not be equal to the figure based on the value in the table due to the rounded total fertility rates.

[b]Multiple-year estimates from a single source.

[c]Excluding the island of Mayotte.

[d]Data refer to the island of Mauritius only.

[e]Averages of annual data for the period indicated. The annual value refers to the incidence from January to December of the year.

[f]Data refer to mainland only.

[g]Data refer to West Zaire only.

[h]Data refer to North Sudan only.

[i]Excluding Taiwan Province of China.

[j]Data refer to Peninsular Malaysia only.

[k]On 22 May 1990, Democratic Yemen and Yemen merged to form a single State. Since that date they have been represented as one Member of the United Nations with the name "Yemen". For some statistical data which predate the merger, it has been necessary to refer occasionally to the former States of Yemen and Democratic Yemen.

[l]Including data for East Jerusalem and Israeli residents in certain other territories under occupation since June 1967 by Israeli military forces.

[m]Data refer to the East Bank only.

[n]Through accession of the German Democratic Republic to the Federal Republic of Germany with effect from 3 October 1990, the two German States have united to form one sovereign State. As from the date of unification, the Federal Republic of Germany acts in the United Nations under the designation "Germany". For some statistical data which predate the unification, it has been necessary to refer occasionally to the former States of the Federal Republic of Germany and the German Democratic Republic.

[o]Excluding Faroe Islands and Greenland.

[p]Data from the period prior to 27 April 1922 refer to the former Socialist Federal Republic of Yugoslavia in terms of its boundaries as they existed prior to that date.

[q]Excluding the former Canal Zone.

Algeria: *1980: Annuaire statistique de l'Algérie, 1982* (Algiers, Office national de statistique, 1984), p. 34, table 32, *1982-1986: Rétrospective 1982-1986: spécial 25e anniversaire: 1962-1987*, Statistiques No. 15 (Algiers, Office national de statistique, 1987).

Benin: *1977-1982: Fertility Behaviour in the Context of Development: Evidence from the World Fertility Survey*, Population Studies, No. 100 (United Nations publication, Sales No. E.86.XIII.5), tables 10 and 12.

Botswana: *1981: 1981 Population and Housing Census: Governmental Draft*, (Gabarone, Central Statistical Office, n.d.), table 5.4, p. 78, adjusted data; *1983-1988*: Lesetedinyana T. Lesetedi and others, *Botswana Family Health Survey II, 1988* (Gaborone, Ministry of Finance and Development Planning, Central Statistical Office, and Ministry of Health, Family Service Division; and Columbia, Maryland, Institute for Resource Development/ Macro Systems, Inc., 1989), table 3.2.

Burundi: *1978/1979*: P. Fokom, "Rapport de mission à Bujumbura", unpublished report, 1986, table 2; *1982-1987*: Léonce Segamba and others, *Enquête démographique et de santé au Burundi, 1987: rapport préliminaire* (Gitega, Ministère de l'intérieur, Département de la population; and Columbia, Maryland, Institute for Resource Development/Westinghouse, 1988), table 3.3.

Cameroon: *1976: Enquête nationale sur la fécondité du Cameroon, 1978*, vol. I, *Analyse des principaux résultats* (Yaoundé. Ministère de l'économie et du plan, Direction de la statistique et de la comptabilité nationale, 1983); table 5.11, adjusted data.

Cape Verde: *1980-1985: Demographic Yearbook, 1986* (United Nations publication, Sales No. E/F.87.XIII.1), table 24.

Comoros: *1979-1980: Recensement général de la population et de l'habitat, 15 septembre 1980*, vol. 1 (Moroni, Comoros, 1984), p. 96, adjusted data.

Congo: *1984: Recensement général de la population et de l'habitat de 1984*, vol. 3, tome 1 (Bureau central du recensement, 1987).

Côte d'Ivoire: *1978-1979: Population de la Côte d'Ivoire: analyse des donnés démographiques disponibles* (Abidjan, Ministre de l'Economie et des Finances, 1984), table 4.1, p. 79, adjusted data.

Egypt: *1975-1980: Fertility Behaviour in the Context of Development: Evidence from the World Fertility Survey*, Population Studies, No. 100 (United Nations publication, Sales No. E.86.XIII.5), tables 10 and 12; *1983-1988*: Hussein Abdel-Aziz Sayed and others, *Egypt Demographic and Health Survey, 1988* (Cairo, Egypt National Population Council; and Columbia, Maryland, Institute for Resource Development/Macro Systems, Inc., 1989), table 3.3.

Equatorial Guinea: *1982*: Dirección General de Estadística, *Analisis demográphico del Censo de 1983* (Malabo, Equatorial Guinea, 1989).

Ethiopia: *1980/1981: Report on the Results of the 1981 Demographic Survey*, Statistical Bulletin 46 (Addis Ababa, Central Statistical Office, 1985), p. 274, *1990*: Population Analyses Studies Center, *The 1991 Family and Fertility Survey: Preliminary Report* (Addis Ababa, Central Statistical Authority,1991), table 5.1, adjusted data.

Ghana: *1977-1979: A Comparative Evaluation of Data Quality in Thirty-eight World Fertility Surveys* (United Nations publication, Series No. ST/ESA/SER.R/50/Rev.1), p. 169; *1983-1988: Ghana Demographic and Health Survey, 1988* (Accra, Ghana Statistical Service; and Columbia, Maryland, Institute for Resource Development/Macro Systems, Inc., 1989), table 3.3.

Kenya: *1977/1978: Fertility Levels and Trends as Assessed From Twenty World Fertility Surveys* (United Nations publication, Series No. ST/ESA/SER.R/50), table KE-3, adjusted data; *1984-1989: Kenya Demographic and Health Survey, 1989* (Nairobi, Ministry of Home Affairs and National Heritage, National Council for Population and Development; and Columbia, Maryland, Institute for Resource Development/Macro Systems, Inc., 1989), table 3.2.

Lesotho: *1975-1977: A Comparative Evaluation of Data Quality in Thirty-eight World Fertility Surveys* (United Nations publication, Series No. ST/ESA/SER.R/50/Rev.1), p. 245.

Liberia: *1981-1986*: Dorothy Chieh-Johnson and others, *Liberia Demographic and Health Survey, 1986* (Monrovia, Ministry of Planning and Economic Affairs, Bureau of Statistics; and Columbia, Maryland, Institute for Resource Development/Westinghouse, 1988), table 3.2.

Madagascar: *1980*: The World Bank, personal communication.

Malawi: *1983/1984: Malawi Family Formation Survey, 1984: Preliminary Report* (Zomba, National Statistical Office, 1987), table 2.

Mali: *1982-1987*: Baba Traoré, Mamadou Konaté and Cynthia Stanton, *Enquête démographique et de santé au Mali, 1987* (Bamako, Institut du Sahel, Centre d'études et de recherches sur la population pour le développement; Columbia, Maryland, Institute for Resource Development, 1989), table 3.3.

Mauritania: *1976-1981: Fertility Behaviour in the Context of Development: Evidence from the World Fertility Survey*, Population Studies, No. 100 (United Nations publication, Sales No. E.86.XIII.5), tables 10 and 12, pp. 23 and 24; *1984/85–1989/90: Mauritanian Maternal and Child Health Survey* (Ministry of Planning, National Statistics Department, 1992).

Mauritius: *1979-1980: Demographic Yearbook, 1981* (United Nations publication, Sales No. E/F.82.XIII.1), table 24; *1981, 1985: Demographic Yearbook, 1986* (United Nations publication, Sales No. E/F.87.XIII.1), table 24; *1986: Demographic Yearbook, 1987* (United Nations publication, Sales No. E/F.88.XIII.1), table 11; *1987: Demographic Yearbook, 1988* (United Nations publication, Sales No. E/F.89.XIII.1), table 11.

Morocco: *1974/1975–1979/1980: Fertility Behaviour in the Context of Development: Evidence from the World Fertility Survey*, Population Studies, No. 100 (United Nations publication, Sales No. E.86.XIII.5), tables 10 and 12; *1982-1987*: Mustapha Azelmat, Mohamed Ayad and Houcine Belhachmi, *Enquête nationale sur la planification familiale, la fécondité et la santé de la population au Maroc (ENPS), 1987* (Rabat, Ministère de la santé publique, Service des études et de l'information sanitaire; and Columbia, Maryland, Institute for Resource Development/ Westinghouse, 1989), table 3.4.

Mozambique: *1975-1980*: United Nations, Economic Commission for Africa, *Second African Population Conference*, vol. 3, *Country Statements*, ST/ECA/POP/1 (Addis Ababa, 1984), p. 294, adjusted data.

Nigeria: *1977-1982: The Nigeria Fertility Survey, 1981-82: Principal Report* (Lagos, 1984), table 5.3, p. 76, data for Ondo state; *1987-1990: Nigeria Demographic and Health Survey, 1990* (Lagos, Federal Office of Statistics; and Columbia, Maryland, Institute for Resource Development/ Macro International, 1991), table 3.3.

Réunion: *1979-1981*: Patrick Festy (1983) *Croissance et révolution démographiques à la Réunion*, Institut national d'études démographiques (INED), Travaux et documents, Cahier No. 100 (Paris, Presses universitaires de France, 1983), table II-6; *1986: Demographic Yearbook, 1988* (United Nations publication, Sales No. E/F.89.XIII.1), table 11.

Rwanda: *1978-1983*: Office National de la Population, *Rwanda 1983 enquête nationale sur la fécondité*, vol. 1, *Analyse des résultats* (Kigali, 1985), table 4.25.

Senegal: *1976-1978: A Comparative Evaluation of Data Quality in Thirty-Eight World Fertility Surveys* (United Nations publication, ST/ESA/SER.R/50/Rev.1), p. 373; *1981-1986*: Salif Ndiaye, Ibrahim Sarr and Mohamed Ayad, *Enquête démographique et de santé au Sénégal, 1986* (Dakar, Ministère de l'économie et des finances, Direction de la statistique, Division des enquêtes et de la démographie; and Columbia, Maryland, Institute for Resource Development/ Westinghouse, 1988), table 3.3.

Somalia: *1980*: Ministry of National Planning, *National Survey of Population, 1980-1981: Report on Findings* (Mogadiscio, Central Statistical Department, 1986), table IV.4, adjusted data.

South Africa: *1982-1989*: W. P. Mostert, *Recent Trends in Fertility in South Africa's Demographic Future*, W. P. Mostert and J. M. Lötter, eds., (Pretoria, Human Sciences Research Council, 1990), p. 64, black population only.

Sudan: *1974/1975–1978/1979: Fertility Behaviour in the Context of Development: Evidence from the World Fertility Survey* (United Nations publication, Sales No. E.86.XIII.5), tables 10 and 12; *1985/1986–1989/1990: Sudan Demographic and Health Survey, 1989/1990* (Khartoum, Department of Statistics, Ministry of Economic and National Planning, and Institute for Resource Development/Macro International, Inc., 1991), table 3.2.

Swaziland: *1975/1976: Report on the 1976 Population Census*, vol. I, *Administrative and Analytical Reports* (Mbabane, Central Statistical Office, 1980), table XIX.20, adjusted data.

Togo: *1983-1988*: Akoua Agounké, Mensan Assogba and Kodjo Anipah, *Enquête démographique et de santé au Togo, 1988* (Lomé, Direction général de la santé, Direction de la statistique, Unité de recherche démographique; and Columbia, Maryland, Institute for Resource Development/ Macro Systems, Inc., 1989), table 3.3.

Tunisia: *1979-1980: Population and Vital Statistics Report: 1984, Special Supplement* (United Nations publication, Sales No. E/F.84.XIII.2), table 3; *1981: Annuaire statistique de la Tunisie, 1983*, table 2.7; *1983-1988*: Touhami Aloui, Mohamed Ayad and Habib Fourati, *Enquête démographique et de santé en Tunisie, 1988* (Tunis, Office national de la famille et de la population, Direction de la population; and Columbia, Maryland, Institute for Resource Development/Macro Systems, Inc., 1989), table 5.4.

Uganda: *1983/1984–1988/1989*: Emanuel M. Kaijuka and others, *Uganda Demographic and Health Survey, 1988-1989* (Entebbe, Ministry of Health, in collaboration with Ministry of Planning and Economic Development, and Department of Geography and Institute of Statistics and Applied Economics of Makarere University; and Columbia, Maryland, Institute for Resource Development/Macro Systems, Inc., 1989), table 3.4.

Zambia: *1975-1980: Zambia Population and Housing Census, 1980*, vol. IV (Lusaka, Central Statistical office, 1985).

Zimbabwe: *1981: 1982 Population Census: Main Demographic Features of the Population of Zimbabwe* (Harare, Central Statistical Office, 1985), table VI.3; *1983-1988: Zimbabwe Demographic and Health Survey, 1988* (Harare, Ministry of Finance, Economic Planning, and Development, Central Statistical Office; and Columbia, Maryland, Institute for Resource Development/Macro Systems, Inc., 1989), table 3.2.

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Afghanistan: *1979: Demographic Yearbook, 1986* (United Nations publication, Sales No. E/F.87.XIII.1), table 24.

Bahrain: *1989: Demographic Yearbook, 1990* (United Nations publication, Sales No. E/F.91.XIII.1), table 11.

Bangladesh: *1980:* A. K. M. Ghulam Rabbani and others, *Current Demographic Situation in Bangladesh* (Dhaka, Bangladesh Bureau of Statistics, 1983), p. 42, table 29, adjusted data; *1986/1987–1988/1989:* Mitra and Associates, *Bangladesh Contraceptive Prevalence Survey, 1989, Final Report* (Dhaka, 1990), p. 75, table 4.5.

Bhutan: *1984: Statistical Yearbook of Bhutan, 1987* (Thimphu, Central Statistical Office, 1987), p. 4, table 1.6.

China: *1980:* Population Information Centre, *Analysis on China's National One-Per-Thousand Population Fertility Sampling Survey* (Beijing, 1984), appendix 2, p. 168; *1989/1990: Ten Percent Sampling Tabulation on the 1990 Population Census of the People's Republic of China* (Beijing, Population Census Office and State Statistical Office, 1991), table I-22.

Cyprus: *1978-1982: Population and Vital Statistics Report: 1984 Special Supplement* (United Nations publication, Sales No, E/F.84.XIII.2), table 3; *1986-1988: Recent Demographic Developments in the Member States of the Council of Europe, 1989 Edition* (Strasbourg, Council of Europe, 1990), tables V.A and VI.A.

Hong Kong: *1978-1981: Population and Vital Statistics Report: 1984 Special Supplement* (United Nations publication, Sales No. E/F.84.XIII.2), table 3; *1988: Hong Kong Annual Digest of Statistics, 1988* (Census and Statistics Department, 1989), tables 2.10 and 2.11; *1989-1990:* Census and Statistical Department, *Statistical Report, 1991.*

India: *1980:* ESCAP (1985) *Levels and Trends of Fertility in India,* Asian Population Studies Series, No. 62-B, annex table 1; Ministry of Home Affairs, Office of the Registrar-General, *Sample Registration Bulletin* (New Delhi), vol. XXIV (June 1990), table 4.

Indonesia: *1980:* T. H. Hull and G. L. Dasvarma, *The 1985 Intercensal Survey of Indonesia* (Jakarta, 1987), table 1; *1982-1987: National Indonesia Contraceptive Prevalence Survey, 1987* (Jakarta, Central Bureau of Statistics and National Family Planning Coordinating Board; and Columbia, Maryland, Institute for Resource Development/Westinghouse, 1989), table 6.3.

Iraq: *1977: Population and Vital Statistics Report: 1984 Special Supplement* (United Nations publication, Sales No. E/F.84.XIII.2), table 3; *1988-1989: National Child Health Survey, 1989: preliminary report* (Baghdad, Ministry of Health, 1990), table 10.4.

Israel: *1978-1980: Population and Vital Statistics Report: 1984 Special Supplement* (United Nations publication, Sales No. E/F.84.XIII.2), table 3; *1981-1982, 1985: Demographic Yearbook, 1986* (United Nations publication, Sales No. E.87.XIII.1), table 24; *1986: Demographic Yearbook, 1987* (United Nations publication, Sales No. E/F.88.XIII.1), table 11; *1988: Demographic Yearbook, 1988* (United Nations publication, Sales No. E/F.89.XIII.1), table 11.

Japan: *1978-1982, 1988:* Institute of Population Problems, *Latest Demographic Statistics, 1989* (Tokyo, Ministry of Health and Welfare, 1990), tables 5-5 and 5-9, respectively; *1988-1990:* Institute of Population Problems, *Latest Demographic Statistics, 1992* (Tokyo, Ministry of Health and Welfare, forthcoming), table 5.8.

Jordan: *1981-1983, 1987-1990: Jordan Population and Family Health Survey, 1990, Preliminary Report* (Amman, Department of Statistics, Ministry of Health, and Columbia, Maryland, Institute for Resource Development/Macro International, Inc., 1991), table 6.

Kuwait: *1978-1979:* Demographic Yearbook questionnaire; *1980: Demographic Yearbook, 1986* (United Nations publication, Sales No. E/F.87.XIII.1), table 24, *1986: Demographic Yearbook, 1988* (United Nations publication, Sales No. E/F.89.XIII.1), table 11.

Lao People's Democratic Republic: *1988-1990,* Carl M. Frisen, "Population characteristics in the Lao Peoples' Democratic Republic", *Asia-Pacific Population Journal* (Bangkok), vol. 6, No. 2, p. 59, preliminary result.

Malaysia: *1978-1979: Population and Vital Statistics Report: 1984 Special Supplement* (United Nations publication, Sales No. E/F.84.XIII.2), table 3; *1980-1982: Demographic Yearbook, 1986* (United Nations publication, Sales No. E/F.87.XIII.1), table 24; *1985-1987:* Department of Statistics, *Vital Statistics, Peninsular Malaysia* (Kuala Lumpur).

Myanmar: *1982: Burma 1983 Population Census* (Rangoon, Ministry of Home and Religious Affairs, 1986), table A-16.

Nepal: *1981:* Central Bureau of Statistics, *Intercensal Changes of Some Key Census Variables, Nepal* (Kathmandu, 1986), table 7.6, adjusted data; *1985-1986:* Ministry of Health, *Nepal Fertility and Family Planning Survey Report, 1986* (Kathmandu, Nepal Family Planning and MCH Project, Planning, Evaluation and Research Section, 1987), adjusted data.

Oman: *1988/1989: National Child Health Survey, 1989: Preliminary Report* (Oman, Ministry of Health, 1990), table 10.4.

Pakistan: *1979/1980, 1984/1985–1990/1991:* Data derived from the Population, Labor Force and Migration Survey, cited in *Pakistan Demographic and Health Survey, 1990/91* (Islamabad, National Institute of Population Studies; and Columbia, Maryland, Institute for Resource Development/Macro International, Inc., 1992), table 4.3.

Philippines: *1984: Demographic Yearbook, 1987* (United Nations publication, Sales No. E/F.88.XIII.1), table 11; *1988: Demographic Yearbook, 1990* (United Nations publication, Sales No. E/F.91.XIII.1).

Qatar: *1986/1987:* Gulf Child Health Survey, *National Child Health Survey, 1989, Preliminary Report* (State of Qatar, Ministry of Health, 1989), table 7.4.

Republic of Korea: *1978: Population and Vital Statistics Report: 1984 Special Supplement* (United Nations publication, Sales No. E/F.84.XIII.2), table 3; *1979:* Kap Suk Koh and others, *1979 Korea Contraceptive Prevalence Survey Report* (Seoul, Korean Institute for Family Planning, 1980), table 3-6; *Statistics Report: 1984 Special Supplement* (United Nations publication, Sales No. E/F.84.XIII.2), table 3; *1981: Demographic Yearbook, 1986* (United Nations publication, Sales No. E/F.87.XIII.1), table 24; *1982: National Survey of Fertility and Family Health* (Seoul, Korean Institute for Population and Health, 1989), in Korean; *1988:* Korean Institute for Population and Health, *KIPH Bulletin* (Seoul) (1990); *1989-1990:* National Bureau of Statistics, Economic Planning Board, *Korea Statistical Yearbook, 1991* (Seoul, 1991).

Saudi Arabia: *1986-1987:* Yagob Al-Mazron and Samir Farid, eds., *Saudi Arabia Child Health Survey* (Riyadh, Ministry of Health, 1991), table 10.8

Singapore: *1978-1981, 1988: Population and Vital Statistics Report: 1984 Special Supplement* (United Nations publication, Sales No. E/F.84.XIII.2), table 3; *1982: Demographic Yearbook, 1986* (United Nations publication, Sales No.E/F.87.XIII.1), table 24; Singapore *1989-1990:* Department of Statistics, *Yearbook of Singapore, 1990.*

Sri Lanka: *1978-1979: Population and Vital Statistics Report: 1984 Special Supplement* (United Nations publication, Sales No. E/F.84.XIII.2), table 3; *1980-1982: Demographic Yearbook, 1986* (United Nations publication, Sales No.E/F.87.XIII.1), table 24; *1982-1987:* Department of Census and Statistics, *Sri Lanka Demographic and Health Survey, 1987* (Colombo, Ministry of Plan Implementation; and Columbia, Maryland, Institute for Resource Development/Westinghouse, 1988), table 3.4.

Syrian Arab Republic: *1976-1978:* Kamel Abu Jaber, ed., *Levels and Trends of Fertility and Mortality in Selected Arab Countries* (Amman, University of Jordan, Population Studies Programme, 1980), table 21.

Thailand: *1980-1981:* Peerasit Kamnuasilpa and Apichat Chamatrithirong, *Fertility in Thailand: Results from the 1984 Contraceptive Prevalence Survey* (Bangkok, National Family Planning Board, 1985), table 3.11; *1989:* National Statistical Office, *Report of the Survey of Population Change, 1989* (Bangkok, n.d.), table 6.

Turkey: *1978-1983:* Institute of Population Studies, *1983 Turkish Population and Health Survey* (Ankara, Hacetteppe University, 1987), table IV-25; *1985-1988:* Council of Europe, *Recent Demographic Developments in the Member States of the Council of Europe, 1989 Edition* (Strasbourg, 1990), table V.A and VI.A.

United Arab Emirates: *1980:* United Nations Statistical Office questionnaire; *1981:* United Nations Statistical Office; *1986/87: National Child Health Survey, 1989: Preliminary Report* (Ministry of Health, 1989), table 5.4.

Viet Nam: *1978-1982:* "The 1988 Demographic Survey of Viet Nam", *Asia-Pacific Population Journal* (Bangkok), vol. 4, No. 3 (September 1989), p. 5, for ages 15-39; *1988-1989: Vietnam Population Census, 1989: Sample Results* (Hanoi, Central Census Steering Committee, 1990), adjusted data.

Yemen: *1980-1981: A Comparative Evaluation of Data Quality in Thirty-eight World Fertility Surveys* (United Nations publication, ST/ESA/SER.R/50/Rev.1), p. 458.

EUROPE

For all countries except Albania and Malta, rates for the period around 1980 were derived from data in *Patterns of Fertility in Low-fertility Settings* (United Nations publication, Sales No. E.92.XIII.11), annex I. Those for the period around 1990 were derived from data in Statistical Office of the European Communities, *Demographic Statistics, 1992: Population and Social Conditions,* series 3C (Luxembourg, 1992); Eurostat, *Statistiques rapides: population et conditions sociales,* No. 2 (1992), table 2; and for Switzerland, data from the Federal Statistical Office.

Sources for the other two countries are given below:

Albania: *1980:* Ermelinda Meksi and Pietro Iaquinta, "Aspects de l'évolution démographiques en Albanie", *Population* (Paris), vol. 46, No. 3 (1991), table 3; *1981-1982, 1989-1990:* Ministry of Economy, *Statistical Yearbook of Albania* (Tirana, Drejtoria e Statistikes, 1991), table 42.

Malta: *1978-1981:* Council of Europe, *Recent Demographic Developments in the Member States of the Council of Europe: 1989 Edition* (Strasbourg, 1990), tables V.A and VI.A; *Population and Vital Statistics Report: 1984 Special Supplement* (United Nations publication, Sales No. E/F/84.XIII.2), table 3; United Nations, Economic Commission for Europe, data bank; *1982: Demographic Yearbook, 1986* (United Nations publication, Sales No. E/F.87.XIII.1, table 11; Council of Europe, op.cit.; *1988:*

Alain Monnier, "Actualité démographique européenne", *Population et société* (Paris), No. 250 (octobre 1990), p. 3; and Council of Europe, op.cit.

LATIN AMERICA

Argentina: *1979-1980: Demographic Yearbook, 1986* (United Nations publication, Sales No. E/F.87.XIII.1), table 24.

Bolivia: *1976-1980: The 1980 Bolivia National Demographic Survey: A Summary of Results*, Summary Series No. 3 (Chapel Hill, North Carolina, POPLABS, 1981), table 6; *1984-1989: Encuesta Nacional de Demografía y Salud, 1989* (La Paz, Instituto Nacional de Estadística; and Columbia, Maryland, Institute for Resource Development/Macro Systems, Inc., 1990), table 4.2.

Brazil: *1980*: L. A. P. de Oliveira and N. L. P. de Silva, *Tendencias de fecundidade: nos primeros anos de decade de 80*, Anais do V Encontro Nationale de Estados Populacionals (Sao Paulo, 1986), p. 25; *1983-1986:* José Maria Arruda and others, *Pesguisa Nacional Sobre Saúde Materno-infantil e Planejamento Familiar Brasil, 1986* (Rio de Janeiro, Sociedade Civil Bem-Estar Familiar do Brasil; and Columbia, Maryland, Institute for Resource Development/Westinghouse, 1987), p. 26.

Chile: *1978-1981: Population and Vital Statistics Report: 1984 Special Supplement* (United Nations publication, Sales No. E/F.84.XIII.2), table 3, *1982, 1985: Demographic Yearbook, 1986* (United Nations publication, Sales No. E/F.87.XIII.1), table 24; *1986: Demographic Yearbook, 1987* (United Nations publication, Sales No. E/F.88.XIII.1), table 11.

Colombia: *1981-1986: Colombia Encuesta de Prevalencia, Demografía y Salud, 1986* (Bogotá, Ministerio de Salud; and Colombia, Maryland IRD/Westinghouse, 1988), table 3.3; *1987-1990: Colombia Encuesta de Prevalencia, Demografía y Salud, 1990* (Bogotá, Profamilia Asociación Pro-Bienestar de la Familia Colombiana; and Columbia, Maryland, Institute for Resource Development/Macro International, Inc., 1991), table 3.1.

Costa Rica: *1978-1980*: Asociación Demográfica Costarricense and Westinghouse Health Systems, *Análisis de los resultados de la Segunda Encuesta de Prevalencia Anticonceptiva* (San José, Asociación Demográfica Costarricense; and Columbia, Maryland, Westinghouse Health Systems, 1981), table 2.3; *1981-1982: Demographic Yearbook, 1986* (United Nations publication, Sales No. E/F.87.XIII.1), table 12.

Cuba: *1979-1981, 1985: Demographic Yearbook, 1986* (United Nations publication, Sales No. E/F.87.XIII.1), table 24; *1986: Demographic Yearbook, 1987* (United Nations publication, Sales No. E/F.88.XIII.1), p. 363, table 11; *1987*: Comité Estatal de Estadísticas, Instituto de Investigaciones Estadísticas, *Anuario Demográfico, República de Cuba, 1987*, p. 69, cited in Sonia C. Cervera and Juan C. A. Fraga "La transición de la fecundidad en Cuba", paper presented at the Seminar on Fertility Transition in Latin America, Buenos Aires, 3-6 April 1990, organized by the International Union for the Scientific Study of Population, table 4.

Dominican Republic: *1981-1986: República Dominicana Encuesta Demográfica y de Salud, 1986* (Santo Domingo, Consejo Nacional de Población y Familia; and Columbia, Maryland, Institute for Resource Development/Westinghouse, 1987), table 5.4.

Ecuador: *1975-1979: Encuesta Nacional de Fecundidad, 1979: informe general* (Quito, Instituto Nacional de Estadística y Censos, 1984), table 6.3; *1984-89: Encuesta Demográfica y de Salud Materna e Infantil, ENDEMAIN-89* (Quito, Centro de Estudios de Población y Paternidad Responsable and Ministerio de Salud Pública; and Atlanta, Georgia, United States Centers for Disease Control, 1990), table 3.7.

El Salvador: *1980-1981*: Luis Sidney Castro, José Mario Caceres and Jean Carlos Salguero, *Encuesta Nacional de Salud Familiar, FESAL-85* (San Salvador, Asociación Demográfica Salvadoreña; and Atlanta, Georgia, United States Centers for Disease Control, 1989), table 3.3, for females aged 15-44.

Guadeloupe: *1978-1980*: United Nations Statistical Office questionnaire; *1985: Demographic Yearbook, 1987* (United Nations publication, Sales No. E/F.88.XIII.1), table 11.

Guatemala: *1975, 1977: Population and Vital Statistics Report: 1984 Special Supplement* (United Nations publication, Sales No. E/F.84.XIII.2), table 3; *1976*: United Nations Statistical Office questionnaire; *1982-1987: Guatemala, Encuesta Nacional de Salud Materno Infantil, 1987* (Guatemala, Instituto de Nutrición de Centro América y Panamá; and Columbia, Maryland, Institute for Resource Development/Westinghouse, 1989), table 4.2, for females aged 15-44.

Guyana: *1980/1981*: Regional Census Co-ordinating Committee/ CARICOM, *1980-1981 Population Census of the Commonwealth Caribbean, Guyana*, vol. 1 (n.p., n.d.), table 8-4.

Haiti: *1982-1983: Planification familiale fécondité et santé en Haiti, 1983* (Haiti, Département de la santé publique et de la population; and Westinghouse Public Applied Systems, 1985), p. 71, adjusted data; *1988/1989*: Michel Cayemittes, Antoine Augustin and Antonio Riral, *1989 Haiti National Contraceptive Prevalence Survey* (Port-au-Prince, 1991, Child Health Institute; and Atlanta, Georgia, United States Centers for Disease Control), table 3-11, adjusted data.

Honduras: *1981: Demographic Yearbook, 1986* (United Nations publication, Sales No. E/F.87.XIII.1), table 24; *1986/1987: Honduras Epidemiology and Family Health Survey, 1987: Final Report* (Tegucigalpa, Ministry of Public Health and Association for Family Planning in Honduras; and Research Triangle, North Carolina, Family Health International and Management Sciences for Health, 1989), table IV.B1, for females aged 15-44.

Jamaica: *1982: Demographic Yearbook, 1987* (United Nations publication, Sales No. E/F.88.XIII.1), table 11; *1986-1988*: Carmen McFarlane and Charles Warren, *Jamaica Contraceptive Prevalence Survey, 1989: Final Report* (Kingston, National Family Planning Board, 1989), table 3.3.2.

Martinique: *1979: Population and Vital Statistics Report: 1984 Special Supplement* (United Nations publication, Sales No. E/F.84.XIII.2), table 3; *1986*: United Nations Statistical Office questionnaire.

Mexico: *1979: A Comparative Evaluation of Data Quality in Thirty-eight World Fertility Surveys* (United Nations publication, ST/ESA/SER.R/50/Rev.1), p. 277; *1986: Mexico Encuesta Nacional sobre Fecundidad y Salud, 1987* (Mexico, D.F., Secretaría de Salud, Subsecretaría de Servicios de Salud, Dirección General de Planificación Familiar; and Columbia, Maryland, Institute for Resource Development/ Macro Systems, Inc., 1989), table 5.3.

Nicaragua: *1980/1981–1985/1986: Principales resultados de la ESDENIC, 1985* (Managua, Dirección de Población, Instituto Nacional de Estadísticas y Censos, 1990), table 15; because of the conflict, only 88 per cent of the national population is covered.

Panama: *1978-1980: Population and Vital Statistics Report: 1984 Special Supplement* (United Nations publication, Sales No. E/F.84.XIII.2), table 3; *1982, 1986: Demographic Yearbook, 1986* (United Nations publication, Sales No. E/F.87.XIII.1), table 12; *Demographic Yearbook, 1987* (United Nations publication, Sales No. E/F.88.XIII.1), table 11.

Paraguay: *1974-1979: Fertility Behaviour in the Context of Development: Evidence from the World Fertility Survey*, Population Studies, No. 100 (United Nations publication, Sales No. E.86.XIII.5), tables 10 and 12; *1987-1990: Encuesta Nacional de Demografía y Salud, 1990* (Asunción, Centro Paraguayo de Estudios de Población; and Columbia, Maryland, Institute for Resource Development/Macro Systems, Inc., 1991), table 3.1.

Peru: *1980-1982*: Noreen Goldman, Lorenzo Moreno and Charles F. Westoff, *Peru Experimental Study: An Evaluation of Fertility and Child Health Information* (Princeton, New Jersey, Princeton University, Office of Population Research; and Columbia, MD., Institute for Resource Development/Macro Systems, Inc., 1989), table 3.3, for females aged 15-44; *1991-1992: Peru Encuesta Demográfica y de Salud Familiar 1991-1992: Informe preliminar* (Lima, Instituto Nacional de Estadística e Informática, Asociación Benéfica PRISMA; and Columbia, Institute for Resource Development/ Macro Systems, Inc., 1991), table 3.

Puerto Rico: *1980: Population and Vital Statistics Report: 1984 Special Supplement* (United Nations publication, Sales No. E/F.84.XIII.2), table 3; *1981-1982: Demographic Yearbook, 1986* (United Nations publication, Sales No. E/F.87.XII.1), table 24; *1985: Demographic Yearbook, 1987* (United Nations publication, Sales No. E/F.88.XIII.1), table 11, p. 364.

Trinidad and Tobago: *1980: Demographic Yearbook, 1986* (United Nations publication, Sales No. E/F.87.XII.1), table 24; *1982-1987:* Kenneth Heath, Dona Da Costa-Martínez and Amy R. Sheon, *Trinidad and Tobago Demographic and Health Survey, 1987* (Port-of-Spain, Trinidad, Family Planning Association; and Columbia, Maryland, Institute for Resource Development/Westinghouse,1988), table 3.3.

Uruguay: United Nations Statistical Office questionnaire, *1980: Demographic Yearbook, 1986* (United Nations publication, Sales No. E/F.87.XII.1), table 24; *1985: Demographic Yearbook, 1987* (United Nations publication, Sales No. E/F.88.XIII.1), table 11, p. 364.

Venezuela: *1978: Population and Vital Statistics Report: 1984 Special Supplement* (United Nations publication, Sales No. E/F.84.XII.2), table 3; *1980, 1982: Demographic Yearbook, 1986* (United Nations publication, Sales No. E/F.87.XII.1), table 24; *1981: Demographic Yearbook, 1983* (United Nations publication, Sales No. E.84.XII.1), table 11; *1986: Demographic Yearbook, 1987* (United Nations publication, Sales No. E.88.XIII.1), table 11; *1987: Demographic Yearbook, 1988* (United Nations publication, Sales No. E.89.XIII.1), table 11.

NORTHERN AMERICA

Canada: *1978-1981*: Anonymous, "Dix-huitième rapport sur la situation démographique de la France", *Population* (Paris), vol. 44, No. 4-5 (juillet-octobre 1989), table 16; *1982: Demographic Yearbook, 1986* (United Nations publication, Sales No. E/F.87.XIII.1), table 24; *1985-1986*: Anonymous, "Dix-huitième rapport sur la situation démographique de la France", *Population* (Paris), vol. 44, No. 4-5 (juillet-octobre 1989), table 16; *1987: Demographic Yearbook, 1988* (United Nations publication, Sales No. E/F.89.XIII.1), table 11; *1988*: data given to Projection Section of the Population Division, through personal communication with the Government.

United States of America: National Center for Health Statistics, *Advance Report of Final Natality Statistics, 1987*, Monthly Vital Statistics Report, vol. 38, No. 3, supplement (Hyattsville, Maryland, Department of Health and Human Services, 1989); *Final Data from the National Center*

for Health Statistics, Monthly Vital Statistics Report, vol. 39, No. 4, supplement (Hyattsville, Maryland, 1991), table 4.

OCEANIA

Australia: *1978-1979*: *Demographic Yearbook, 1981* (United Nations publication, Sales No. E/F.82.XIII.1), table 24; *1980-1981*: *Demographic Yearbook, 1986* (United Nations publication, Sales No. E/F.87.XIII.1), table 24, p. 651; *1982*: I. Castles, *Projections of the Population of Australia, States and Territories, 1987 to 2301* (Canberra, Australian Bureau of Statistics, 1988), table 4.3; *1986-1988*: Bureau of Immigration Research, *Australia's Population Trends and Prospects, 1989* (Canberra, Publishing Service, 1990), table 1; *1989*: *Demographic Yearbook, 1990* (United Nations publication, Sales No. E/F.91.XIII.1), table 11.

Fiji: *1978, 1982*: *Demographic Yearbook, 1986* (United Nations publication, Sales No. E/F.87.XIII.1), table 24; *1985*: *Demographic Yearbook, 1987* (United Nations publication, Sales No. E/F.88.XIII.1), table 11.

New Zealand: *1978-1979*: *Demographic Yearbook, 1981* (United Nations publication, Sales No. E/F.82.XIII.1), table 24; *1980-1981*: *Demographic Yearbook, 1986* (United Nations publication, Sales No. E/F.87.XIII.1), table 24; *1985*: *Demographic Yearbook, 1987* (United Nations publication, Sales No. E/F.88.XIII.1), table 11; *1987*: *Demographic Yearbook, 1988* (United Nations publication, Sales No. E/F.89.XIII.1), table 11.

Papua New Guinea: *1979-1980*: W. K. A. Agyei, *Fertility and Family Planning in the Third World: A Case Study of Papua New Guinea* (New York, Croom Helm, 1988), table 5.2.

USSR (former): *1978/79, 1980/81, 1982/83, 1987/88*: State Committee on Statistics, *Naselenie SSSR, 1988 (*Population of the USSR, 1988) (Moscow, Finance and Statistics, 1989), p. 328; *1979/80: Vestnik Statistiki* (Moscow), No. 11 (November 1981), p. 71; *1981/82*: Institut national d'études démographiques, "Dix-huitiéme rapport sur la situation démographique de la France", *Population* (Paris), vol. 44, No. 4-5 (juillet-octobre 1989).

TABLE A.3. PERCENTAGE OF MARRIED WOMEN[a] OF REPRODUCTIVE AGE CURRENTLY USING CONTRACEPTION
(MOST RECENT SURVEY DATA AVAILABLE, 1975 OR LATER)

Country or area	Date of last survey	Age range	Percentage using: Any method	Percentage using: Modern[b] method
A. *Less developed regions*				
Africa				
Eastern Africa				
Burundi	1987	15-49	9	1
Ethiopia	1990	15-49[c]	4	3
Kenya	1993	15-49	33[d]	28[d]
Madagascar	1992	15-49	17[d]	5[d]
Malawi	1992	15-49	13[d]	7[d]
Mauritius	1991	15-44	75[d]	46[d]
Réunion	1990	15-49[e]	67	62
Rwanda	1992	15-49	21[d]	13[d]
Uganda	1988/89	15-49	5	3
United Republic of Tanzania	1991/92	15-49	10	7
Zambia	1992	15-49	15	9
Zimbabwe	1988/89	15-49	43	36
Middle Africa				
Cameroon	1991	15-49	16[d]	4[d]
Zaire	1991	12-49	8	2
Northern Africa				
Algeria	1992	15-49	47	43
Egypt	1992	15-49	46[d,f]	45[d]
Morocco	1992	15-49	42	36
Sudan (North)	1989/90	15-49	9	6
Tunisia	1988	15-49	50	40
Southern Africa				
Botswana	1988	15-49	33	32
Lesotho	1991/92	15-49[g]	23[d]	19[d]
Namibia	1992	15-49	29[d]	26[d]
South Africa	1987/89	< 50	50	48
Swaziland	1988	15-49[h]	20	17
Western Africa				
Benin	1981/82	15-49	9[i]	0.5
Burkina Faso	1993	15-49	8[d,j]	4[d]
Côte d'Ivoire	1980/81	15-49	3	0.5
Gambia	1990	15-49	12	7
Ghana	1988	15-49	13	5
Liberia	1986	15-49	6	5
Mali	1987	15-49	5	1
Mauritania	1990	15-49	3[f]	1
Niger	1992	15-49	4	2
Nigeria	1990	15-49	6	4
Senegal	1992/93	15-49	7[d]	5[d]
Togo	1988	15-49	12[j]	3
Asia				
Eastern Asia				
China	1992	15-49	83[d]	80[d]
Hong Kong	1987	15-49	81	75
Republic of Korea	1991	15-44	79	70
South-eastern Asia				
Indonesia	1991	15-49	50	47
Malaysia (Peninsular)	1988	15-49	48	31
Philippines	1993	15-49	40[d]	25[d]
Singapore	1982	15-44	74	..
Thailand	1987	15-49	66	64
Viet Nam	1988	15-49	53	38
Southern Asia				
Bangladesh	1991	< 50	40[d]	31[d]
India	1988	15-44	43	39
Iran (Islamic Republic of)	1992	15-44	65	45
Nepal	1991	15-49	23[d]	22[d]
Pakistan	1990/91	15-49	12	9
Sri Lanka	1987	15-49[k]	62	40
Western Asia				
Bahrain	1989	< 50[l]	53[d,f]	30[d]
Iraq	1989	< 50[l]	14[d,f]	10[d]
Jordan[m]	1990	15-49	35	27
Kuwait	1987	< 50[l]	35	32
Oman	1988/89	< 50[l]	9[d]	8[d]
Qatar	1987	< 50	32[d]	29[d]
Syrian Arab Republic	1978	15-49	20	15
Turkey	1993	15-49	63[d]	34[d]
Yemen	1991/92	15-49	7[d,f]	6[d]
Latin America				
Caribbean				
Antigua	1988	15-44[e]	53	51
Bahamas	1988	15-44[e]	62	60
Barbados	1988	15-44[e]	55	53
Cuba	1987	15-49	70	67
Dominica	1987	15-44[e]	50	48
Dominican Republic	1991	15-49	56[d]	52[d]
Grenada	1990	15-44[e]	54	..
Guadeloupe	1976	15-44[e]	44	31
Haiti	1989	15-49[e]	10	9
Jamaica	1993	15-44[e]	66[d]	64[d]
Martinique	1976	15-44[e]	51	38
Montserrat	1984	15-44[n]	53	52
Puerto Rico	1982	15-44	70	62
St. Kitts and Nevis	1984	15-44[n]	41	37
Saint Lucia	1988	15-44[e]	47	46
Saint Vincent and the Grenadines	1988	15-44[e]	58	55
Trinidad and Tobago	1987	15-49[e]	53	44
Central America				
Belize	1991	15-44[e]	47	42
Costa Rica	1992/93	15-49	75[d]	64[d]
El Salvador	1993	15-44	53[d]	48[d]
Guatemala	1987	15-44	23	19
Honduras	1991/92	15-44	47	34[o]
Mexico	1987	15-49	53	45
Nicaragua	1992	15-49	49[d]	45[d]
Panama	1984/85	15-44	58	54
South America				
Bolivia	1989	15-49	30	12
Brazil	1986	15-44	66	57
Colombia	1990	15-49	66	55
Ecuador	1989	15-49	53	41
Guyana	1975	15-49[e]	31	28
Paraguay	1990	15-49	48	35
Peru	1991/92	15-49	59	33
Venezuela	1977	15-44	49	38
B. *More developed regions*				
Asia				
Japan	1992	< 50	64	57[q]
Europe				
Eastern Europe				
Bulgaria	1976	15-44[r]	76	8
Czech Republic[s]	1993	15-44	69	459
Hungary	1986	15-39	73	62[d]
Poland	1977	< 45	75[t]	26[t]
Romania	1993	15-44[r]	57	14
Slovakia[s]	1991[u]	15-44[n]	74	41
Northern Europe				
Denmark	1988	15-44[n]	78	72
Finland	1977	18-44[r]	80	78
Norway	1988	..[v]	76	72[q]
Sweden	1981	20-44[n]	78	71
United Kingdom[w]	1986	16-49	81	78

TABLE A.3 *(continued)*

Country or area	Date of last survey	Age range	Percentage using: Any method	Percentage using: Modern[b] method
Southern Europe				
Italy	1979	18-44[r]	78[x]	32[x]
Portugal	1979/80	15-49	66[x]	33[x]
Spain	1985	18-49	59[x]	38[x]
Yugoslavia[y]	1976	15-44[r]	55[t]	12[t]
Western Europe				
Austria	1981/82	..[z]	71[x]	56[x]
Belgium[aa]	1991	20-40	79[x]	75[x]
France	1988	18-49	80[x]	64[x]
Germany	1992	20-39	75[x]	72[x]
Netherlands	1988	18-37	76[x]	71[x]
Switzerland	1980	..[bb]	71[x]	65[x]
Northern America				
Canada	1984	18-49	73[x]	70[x]
United States of America.	1988	15-44	74[x]	69[x]
Oceania				
Australia	1986	20-49	76[x]	72[x]
New Zealand	1976	..[cc]	70[x]	62[x]

Sources: World Contraceptive-use Data Diskettes, 1991 (United Nations publication, ST/ESA/SER.R/120), and files of the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat.

[a]Including consensual unions.

[b]Modern or clinic and supply methods include male and female sterilization, intra-uterine device, the pill, injectables, hormonal implants, condoms and female barrier methods.

[c]Excluding Eritrea, Tigrai, Asseb, Ogaden, parts of Gondar and Wello, and nomadic population.

[d]Preliminary or provisional.

[e]Including visiting unions.

[f]Adjusted from source to exclude breast-feeding.

[g]For all women of ages specified.

[h]Including never-married women that have a child.

[i]Women that have not resumed sexual relations since last pregnancy are not counted as users of contraception.

[j]Excluding prolonged abstinence: 17 per cent in Burkina Faso; 22 per cent in Togo.

[k]Excluding areas containing roughly 15 per cent of the population.

[l]Households of nationals of the country.

[m]Excluding the West Bank.

[n]All sexually active women.

[o]Excluding male sterilization and vaginal methods.

[p]Excluding douche, abstinence and folk methods.

[q]Some women reported more than one method; figure shown assumes that modern methods were not used in combination with other modern methods.

[r]Women in first marriage.

[s]The former State of Czechoslovakia was dissolved on 31 December 1992 and became the independent States of Czech Republic and Slovakia on 1 January 1993.

[t]Excluding sterilization.

[u]Data for the former Slovak Socialist Republic, prior to the dissolution of Czechoslovakia.

[v]Women currently married or cohabiting that were born in 1945, 1950, 1955, 1960, 1965 or 1968.

[w]Great Britain.

[x]Use since last pregnancy (since marriage, if no pregnancy).

[y]Data for the former Socialist Federal Republic of Yugoslavia.

[z]Marriage cohorts of 1974 and 1977.

[aa]Flemish population.

[bb]Sample of husbands and wives married between 1970 and 1979.

[cc]Married women aged 15 and over who considered they were at risk of pregnancy.

TABLE A.4. TRENDS IN PERCENTAGE OF WOMEN USING CONTRACEPTION

Major area, region and country or area	Marital status and age range	Earlier date: Year	Earlier date: Percentage currently using contraception	Most recent date: Year	Most recent date: Percentage currently using contraception	Average annual change (percentage points)
A. *Less developed regions*						
Africa						
Eastern Africa						
Kenya	CM 15-49	1984	17	1993	33[a]	1.8
Malawi	CM 15-49	1984	7	1992	13[a]	0.7
Mauritius	CM 15-49	1985	78	1991	75	−0.5
Rwanda	CM 15-49	1983	10	1992	21	1.3
Zimbabwe	CM 15-49	1984	38	1988/89	43	1.1
Middle Africa						
Cameroon	CM 15-49	1978	2	1991	16	1.0
Northern Africa						
Algeria	CM 15-49	1986	36	1992	47	2.0
Egypt	CM 15-49	1980	24	1992	46	1.7
Morocco	CM 15-49	1980	20	1992	42	1.8
Sudan (North)	CM 15-49	1978/79	5	1989/90	9	0.4
Tunisia	CM 15-49	1978	31	1988	50	1.8
Southern Africa						
Botswana	CM 15-49	1984	28	1988	33	1.2
Lesotho	CM 15-49	1977	5	1991/92[b]	23[a]	1.3[c]
Western Africa						
Ghana	CM 15-49	1979/80	10	1988	13	0.4
Mauritania	CM 15-49	1981	1	1990	3	0.3
Nigeria	CM 15-49	1981/82	5	1990	6	0.1
Senegal	CM 15-49	1986	11	1992/93	7	−0.6
Asia						
Eastern Asia						
China	CM 15-49	1982	71	1992	83[a]	1.3
Hong Kong	CM 15-49	1977	72	1987	81	0.9
Republic of Korea	CM 15-44	1978	55	1991	79	2.0

TABLE A.4 *(continued)*

Major area, region and country or area	*Marital status and age range*	*Earlier date*		*Most recent date*		*Average annual change (percentage points)*
		Year	*Percentage currently using contraception*	*Year*	*Percentage currently using contraception*	
South-eastern Asia						
Indonesia	CM 15-49	1979	31	1991	50	1.6
Malaysia (Peninsular)	CM 15-49	1974/75	33	1988	48	1.1
Philippines	CM 15-49	1983	30	1993	40[a]	1.0
Singapore	CM 15-44	1973	60	1982	74	1.6
Thailand	CM 15-44	1978/79	53	1987	68	1.7
Southern Asia						
Bangladesh	CM < 50	1981	19	1991	40	2.1
India	CM 15-44	1980	32	1988	43	1.3
Iran (Islamic Republic of)	CM 15-49	1989	49	1992[d]	65	5.8[c]
Nepal	CM 15-49	1981	7	1991	23	1.5
Pakistan	CM 15-49	1979/80	3	1990/91	12	0.8
Sri Lanka[e]	CM 15-49	1975	34	1987	62	2.4
Western Asia						
Iraq	CM < 50	1974	14[f]	1989	14[f,g]	−0.1
Jordan	CM 15-49	1976	25	1990	35	0.7
Turkey	CM 15-49	1983	51	1993	63[a]	1.2
Latin America						
Caribbean						
Antigua	CM 15-44	1980/81	39	1988	53	2.0
Barbados	CM 15-44	1980	47	1988	55	1.0
Dominica	CM 15-44	1981	49	1987	50	0.1
Dominican Republic	CM 15-49	1980	42	1991	56	1.2
Haiti	CM 15-49	1977	15	1989	10	−0.4
Jamaica	CM 15-49	1975/76	38	1988/89	55	1.2
Puerto Rico	EM 15-49	1968	60	1982	64	0.3
Saint Lucia	CM 15-44	1981	43	1988	47	0.7
Saint Vincent and the Grenadines	CM 15-44	1981	42	1988	58	2.4
Trinidad and Tobago	CM 15-49	1977	52	1987	53	0.1
Central America						
Costa Rica	CM 15-49	1981	65	1992	75[a]	0.8
El Salvador	CM 15-44	1985	48	1993	53	0.6[c]
Guatemala	CM 15-44	1978	18[h]	1987	23[h]	0.6
Honduras	CM 15-49	1981	27	1991/92	47	1.8
Mexico	CM 15-49	1976	30	1987	53	2.1
Panama	CM 20-44	1976	57[i]	1984/85	63[a]	0.7
South America						
Bolivia	CM 15-44	1983	26	1989	32	1.0
Colombia	CM 15-49	1980	48	1990	66	1.8
Ecuador	CM 15-49	1979	34	1989	53	1.9
Paraguay	CM 15-49	1979	36	1990	48	1.1
Peru	CM 15-49	1981	41	1991/92	59	1.8
B. *More developed regions*						
Asia						
Japan	CM 15-49	1979	62	1992	64	0.1
Europe						
Eastern Europe						
Hungary	CM 15-39	1977	73	1986	73	0.0
Poland	CM < 45	1972	60[k]	1977	75[k]	3.0
Romania	CM 15-44	1978	58	1993	57[a]	0.0
Northern Europe						
Denmark	FM < 45	1975	63[k]	1988[l]	78	1.2[c]
Finland	FM 18-44	1971	77	1977	80	0.6
Norway	..[m]	1978	71	1988	76	0.4[c]
United Kingdom	CM 16-49[n]	1976	77	1986	81	0.4[c]
Southern Europe						
Spain	CM 18-49[o]	1976	51	1985	59	0.9
Yugoslavia[p]	FM < 45	1970	59[k]	1976	65[k]	−0.7

TABLE A.4 *(continued)*

Major area, region and country or area	*Marital status and age range*	*Earlier date*		*Most recent date*		*Average annual change (percentage points)*
		Year	*Percentage currently using contraception*	*Year*	*Percentage currently using contraception*	
Europe (*cont.*)						
Western Europe						
Belgium	CM 20-40[q]	1982/83	80	1991	79	−0.1
France	CM 20-44	1978	79	1988	81	0.3
Netherlands	CM 18-37	1982	77	1988	76	−0.2
Northern America						
United States of America	CM 15-44	1976	68	1988	74	0.5

Source: World Contraceptive-use Data Diskettes, 1991: User's Manual (United Nations publication, ST/ESA/SER.R.120) and files of the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat.

NOTE: CM: Currently married (including consensual unions where data are available); EM: ever-married; FM: currently in the first marriage.

[a]Preliminary.
[b]Based on all women of the ages indicated.
[c]Trend may be affected by differences in the base population or geographical coverage at the two dates.
[d]For ages 15-44.
[e]At both dates, excluding areas containing approximately 15 per cent of the population.
[f]Recalculated from source to exclude breast-feeding.
[g]Households of Iraqi nationals only.
[h]Excluding douche, abstinence and folk methods.
[i]Including sterilizations performed for therapeutic reasons.
[j]Special tabulation for the same areas as covered in the other survey shown.
[k]Excluding sterilization.
[l]Sexually active women aged 15-44.
[m]For 1977, base population is women aged 18-44, in first marriage; for 1988, women born in 1945, 1950, 1955, 1960, 1965 or 1968 that were married or cohabiting.
[n]For 1976, the base population is ever-married women aged 18-39.
[o]The 1976 data pertain to currently married women in first marriage aged 15-44.
[p]Data for the former Socialist Federal Republic of Yugoslavia.
[q]Flemish population only.

TABLE A.5. GOVERNMENTS' OVERALL APPRAISAL OF RATES OF FERTILITY AND INTERVENTION TO INFLUENCE RATES, BY LEVEL OF DEVELOPMENT AND GEOGRAPHICAL REGION, 1993

Rates too low		*Rates satisfactory*				*Rates too high*		
No direct intervention reported (1)	*Intervention to raise rates (2)*	*Intervention to raise rates (3)*	*Intervention to maintain rates (4)*	*No direct intervention reported (5)*	*Intervention to lower rates (6)*	*Intervention to lower rates (7)*	*No direct intervention reported (8)*	*Total number of countries (9)*
				World				
3	19	4	26	52	1	77	8	190
				Developed countries				
3	12	2	16	22	0	1	0	56
				Developing countries[a]				
0	7	2	10	30	1	76	8	134
				Least developed countries				
0	1	0	1	13	0	29	3	47
				Regions				
				Africa				
				Eastern Africa				17
—	—	—	Mauritius	Djibouti Somalia	—	Burundi Comoros Eritrea Ethiopia Kenya Madagascar Malawi Mozambique Rwanda Seychelles Uganda United Republic of Tanzania Zambia Zimbabwe	—	

TABLE A.5 *(continued)*

Rates too low		*Rates satisfactory*				*Rates too high*		
No direct intervention reported (1)	*Intervention to raise rates (2)*	*Intervention to raise rates (3)*	*Intervention to maintain rates (4)*	*No direct intervention reported (5)*	*Intervention to lower rates (6)*	*Intervention to lower rates (7)*	*No direct intervention reported (8)*	*Total number of countries (9)*
				Middle Africa				9
—	Gabon	—	—	Chad Equatorial Guinea Zaire	—	Cameroon Congo Sao Tome and Principe	Angola Central African Republic	
				Northern Africa				6
—	—	—	—	Libyan Arab Jamahiriya Sudan	—	Algeria Egypt Morocco Tunisia	—	
				Southern Africa				5
—	—	—	—	—	—	Botswana Lesotho South Africa Swaziland	Namibia	
				Western Africa				16
—	—	Côte d'Ivoire	—	Benin Mauritania Togo	—	Burkina Faso Cape Verde Gambia Ghana Guinea Liberia Mali Niger Nigeria Senegal Sierra Leone	Guinea-Bissau	
				Total				
0	1	1	1	10	0	36	4	53
				Asia				
				Eastern Asia				5
Japan	—	—	Democratic People's Republic of Korea Mongolia Republic of Korea	—	—	China	—	
				South-eastern Asia				10
—	Cambodia Singapore	—	Lao People's Democratic Republic	Brunei Darussalam Myanmar	—	Indonesia Malaysia Philippines Thailand Viet Nam	—	
				Southern Asia				9
—	—	—	—	Bhutan Maldives	—	Bangladesh India Iran (Islamic Republic of) Nepal Pakistan Sri Lanka	Afghanistan	
				Western Asia				14
—	Cyprus Iraq Israel	Kuwait	Oman Quatar Saudia Arabia	Bahrain Lebanon United Arab Emirates	—	Jordan Syrian Arab Republic Turkey Yemen	—	
				Total				
1	5	1	7	7	0	16	1	38

TABLE A.5 *(continued)*

Rates too low		*Rates satisfactory*				*Rates too high*		
No direct intervention reported (1)	*Intervention to raise rates (2)*	*Intervention to raise rates (3)*	*Intervention to maintain rates (4)*	*No direct intervention reported (5)*	*Intervention to lower rates (6)*	*Intervention to lower rates (7)*	*No direct intervention reported (8)*	*Total number of countries (9)*
				Europe				
				Eastern Europe				6
—	Bulgaria Hungary Romania	—	Czech Republic[b] Slovakia[b]	Poland	—	—	—	
				Northern Europe				10
—	Estonia Latvia	Lithuania	Ireland	Denmark Finland Iceland Norway Sweden United Kingdom	—	—	—	
				Southern Europe				14
Slovenia	Greece Italy	—	Albania Bosnia and Herzegovina Croatia Yugoslavia[c]	Andorra Holy See Malta Portugal San Marino Spain	—	The former Yugoslav Republic of Macedonia	—	
				Western Europe				9
Germany	France Luxembourg Monaco Switzerland	—	—	Austria Belgium Liechtenstein Netherlands	—	—	—	
				Total				
2	11	1	7	17	0	1	0	39
				Latin America				
				Caribbean				13
—	—	—	Barbados	Antigua and Barbuda Bahamas Cuba	—	Dominica Dominican Republic Grenada Haiti Jamaica Saint Kitts and Nevis Saint Vincent and the Grenadines Trinidad and Tobago	Saint Lucia	
				Central America				8
—	—	—	—	Belize Panama	—	Costa Rica El Salvador Guatemala Honduras Mexico Nicaragua	—	
				South America				12
—	Uruguay	—	—	Argentina Brazil Chile Guyana Paraguay Suriname Venezuela	Colombia	Ecuador Peru	Bolivia	
				Total				
0	1	0	1	12	1	16	2	33

TABLE A.5 *(continued)*

Rates too low		*Rates satisfactory*				*Rates too high*		
No direct intervention reported (1)	*Intervention to raise rates (2)*	*Intervention to raise rates (3)*	*Intervention to maintain rates (4)*	*No direct intervention reported (5)*	*Intervention to lower rates (6)*	*Intervention to lower rates (7)*	*No direct intervention reported (8)*	*Total number of countries (9)*
				Northern America				2
—	—	—	—	Canada United States of America	—	—	—	
				Total				
0	0	0	0	2	0	0	0	2
				Oceania				
				Australia–New Zealand				2
—	—	—	—	Australia New Zealand	—	—	—	
				Melanesia				4
—	—	—	—	Vanuatu	—	Fiji Solomon Islands	Papua New Guinea	
				Micronesia				4
—	—	—	Nauru	—	—	Kiribati Marshall Islands Micronesia (Federated States of)	—	
				Polynesia				3
—	—	—	—	—	—	Samoa Tonga Tuvalu	—	
				Total				
0	0	0	1	3	0	8	1	13
				Union of Soviet Socialist Republics (former)[d]				12
—	Ukraine	Belarus	Armenia Azerbaijan Georgia Kazakhstan Kyrgyzstan Republic of Moldova Tajikistan Turkmenistan Uzbekistan	Russian Federation	—	—	—	
				Total				
0	1	1	9	1	0	0	0	12

Source: The Population Policy Data Bank maintained by the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat.

[a]Including the least developed countries.

[b]The former State of Czechoslovakia was dissolved on 31 December 1992 and became the independent States of the Czech Republic and Slovakia on 1 January 1993.

[c]Perception: in some republics and provinces, too low; policy to increase rate; in some others, too high, policy to lower rate. Unless otherwise indicated, data for Yugoslavia shown in this publication for the period beginning 27 April 1992 refer to the Federal Republic of Yugoslavia in terms of its boundaries as they exist from that date. Data for the period prior to 27 April 1992 refer to the former Socialist Federal Republic of Yugoslavia in terms of its boundaries as they existed prior to that date.

[d]Not including Estonia, Latvia and Lithuania, which are included in Northern Europe.

TABLE A.6. GOVERNMENTS' POLICIES CONCERNING EFFECTIVE USE OF MODERN METHODS OF FERTILITY REGULATION, BY LEVEL OF DEVELOPMENT AND GEOGRAPHICAL REGION, 1993

Government's policies concerning effective use of modern methods of contraception				
	Access not limited			
Access limited	*No support provided*	*Indirect support provided*	*Direct support provided*	*Total number of countries*
		World		
3	18	14	155	190
		Developed countries		
1	7	7	41	56
		Developing countries[a]		
2	11	7	114	134
		Least developed countries		
1	3	3	40	47
		Regions		
		Africa		
		Eastern Africa		17
—	Djibouti	Somalia	Burundi Comoros Eritrea Ethiopia Kenya Madagascar Malawi Mauritius Mozambique Rwanda Seychelles Uganda United Republic of Tanzania Zambia Zimbabwe	
		Middle Africa		9
—	Equatorial Guinea Gabon	Chad	Angola Cameroon Central African Republic Congo Sao Tome and Principe Zaire	
		Northern Africa		6
—	Libyan Arab Jamahiriya	—	Algeria Egypt Morocco Sudan Tunisia	
		Southern Africa		5
—	—	—	Botswana Lesotho Namibia South Africa Swaziland	
		Western Africa		16
—	—	Côte d'Ivoire	Benin Burkina Faso Cape Verde Gambia Ghana Guinea Guinea-Bissau Liberia Mali	

TABLE A.6 *(continued)*

Government's policies concerning effective use of modern methods of contraception				
	Access not limited			
Access limited	*No support provided*	*Indirect support provided*	*Direct support provided*	*Total number of countries*
			Mauritania Niger Nigeria Senegal Sierra Leone Togo	
		Total		
0	4	3	46	53
		Asia		
		Eastern Asia		5
—	—	—	China Democratic People's Republic of Korea Japan Mongolia Republic of Korea	
		South-eastern Asia		10
Cambodia	Brunei Darussalam Lao People's Democratic Republic	Myanmar	Indonesia Malaysia Philippines Singapore Thailand Viet Nam	
		Southern Asia		9
—	—	—	Afghanistan Bangladesh Bhutan India Iran (Islamic Republic of) Maldives Nepal Pakistan Sri Lanka	
		Western Asia		14
Saudi Arabia	Iraq Kuwait Oman Quatar United Arab Emirates	Cyprus	Bahrain Israel Jordan Lebanon Syrian Arab Republic Turkey Yemen	
		Total		
2	7	2	27	38
		Europe		
		Eastern Europe		6
—	—	—	Bulgaria Czech Republic[b] Hungary Poland Slovakia[b] Romania	
		Northern Europe		10
—	Ireland	—	Denmark Estonia Finland Iceland Latvia	

TABLE A.6 *(continued)*

Government's policies concerning effective use of modern methods of contraception				
	Access not limited			
Access limited	*No support provided*	*Indirect support provided*	*Direct support provided*	*Total number of countries*
			Lithuania	
			Norway	
			Sweden	
			United Kingdom	
		Southern Europe		14
Holy See	Andorra	—	Albania	
	Malta		Bosnia and Herzegovina	
	San Marino		Croatia	
			Greece	
			Italy	
			Portugal	
			Slovenia	
			Spain	
			The former Yugoslav Republic of Macedonia	
			Yugoslavia[c]	
		Western Europe		9
—	Liechtenstein	Austria	Monaco	
	Luxembourg	Belgium		
	Switzerland	France		
		Germany		
		Netherlands		
		Total		
1	7	5	26	39
		Latin America		
		Caribbean		13
—	—	Bahamas	Antigua and Barbuda	
			Barbados	
			Cuba	
			Dominica	
			Dominican Republic	
			Grenada	
			Haiti	
			Jamaica	
			Saint Kitts and Nevis	
			Saint Lucia	
			Saint Vincent and the Grenadines	
			Trinidad and Tobago	
		Central America		8
—	—	Belize	Costa Rica	
			El Salvador	
			Guatemala	
			Honduras	
			Mexico	
			Nicaragua	
			Panama	
		South America		12
—	—	Argentina	Bolivia	
			Brazil	
			Chile	
			Colombia	
			Ecuador	
			Guyana	
			Paraguay	
			Peru	
			Suriname	

TABLE A.6 *(continued)*

Government's policies concerning effective use of modern methods of concraception				
	Access not limited			
Access limited	*No support provided*	*Indirect support provided*	*Direct support provided*	*Total number countries*
			Uruguay	
			Venezuela	
		Total		
0	0	3	30	33
		Northern America		2
—	—	—	Canada	
			United States of America	
		Total		
0	0	0	2	2
		Oceania		
		Australia–New Zealand		2–
—	—	Australia	New Zealand	
		Melanesia		4
—	—	—	Fiji	
			Papua New Guinea	
			Solomon Islands	
			Vanuatu	
		Micronesia		4
—	—	—	Kiribati	
			Marshall Islands	
			Micronesia (Federated States of)	
			Nauru	
		Polynesia		3
—	—	—	Samoa	
			Tonga	
			Tuvalu	
		Total		
0	0	1	12	13
		Union of Soviet Socialist Republics (former)[d]		
—	—	—	Armenia	
			Azerbaijan	
			Belarus	
			Georgia	
			Kazakhstan	
			Kyrgyzstan	
			Republic of Moldova	
			Russian Federation	
			Tajikistan	
			Turkmenistan	
			Ukraine	
			Uzbekistan	
		Total		
0	0	0	12	12

Source: The Population Policy Data Bank maintained by the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat.

[a]Including the least developed countries.

[b]The former State of Czechoslovakia was dissolved on 31 December 1992 and became the independent States of the Czech Republic and Slovakia on 1 January 1993.

[c]Unless otherwise indicated, data for Yugoslavia shown in this publication for the period beginning 27 April 1992 refer to the Federal Republic of Yugoslavia in terms of its boundaries as they exist from that date. Data for the period prior to 27 April 1992 refer to the former Socialist Federal Republic of Yugoslavia in terms of its boundaries as they existed prior to that date.

[d]Not including Estonia, Latvia and Lithuania, which are included in Northern Europe.

Avdeyev, Alexandre (1990). Contraception and abortions in the USSR: the trends of the 1980s and prospects for the 1990s. Paper presented at the International Seminar on Demographic Processes in the USSR in the Context of European Experience, Tbilisi, Georgia, 8-12 October.

_____, and Irina A. Troitskaya (1991). Contraception and abortion in the USSR: experience of the 1980s. Paper presented at the European Population Conference, Paris, 21-25 October.

Bongaarts, John (1984). Implications of future fertility trends for contraceptive practice. *Population and Development Review* (New York), vol. 10, No. 2 (June), pp. 341-352.

_____ (1990). The measurement of wanted fertility. *Population and Development Review* (New York), vol. 16, No. 3 (September), pp. 487-506.

_____ (1991). The KAP-gap and the unmet need for contraception. *Population and Development Review* (New York), vol. 17, No. 2 (June), pp. 293-313.

_____ (1992). Measuring the unmet need for contraception: reply to Westoff. *Population and Development Review* (New York), vol. 18, No. 1 (March), pp. 126-127.

Caraël, Michel (1992). Women, AIDS and STDs in sub-Saharan Africa: the impact of marriage change. Paper presented at the United Nations Expert Group Meeting on Population and Women, Gaborone, Botswana, 22-26 June.

Council of Europe (1990). *Cohort Fertility in Member States of the Council of Europe.* Population Studies, No. 21. Strasbourg.

Hagenfeldt, Kerstin (1992). Contraceptive research and development. Paper presented at the United Nations Expert Group Meeting on Family Planning, Health and Family Well-being, Bangalore, India, 26-30 October.

Horiuchi, Shiro (1991). Measurement and analysis of cohort-size variations. *Population Bulletin of the United Nations* (New York), No. 30, pp. 106-124. Sales No. E.92.XIII.3.

_____ (1992). Stagnation in the decline of world population growth rate during the 1980s. *Science* (New York), vol. 257, No. 5071 (7 August 1992), pp. 761-765.

Jiang Zhenghua (1988). Reasons for fertility decline in China. Paper presented at the Seminar on Fertility Transition in Asia: Diversity and Change, Bangkok, 28-31 March 1988. Sponsored by the International Union for the Scientific Study of Population. Mimeographed.

Johnson-Acsadi, Gwendolyn and Maurice Szykman (1984). Selected characteristics of exposed women wanting no more children and not using contraception. *Survey Analysis for the Guidance of Family Planning Programs,* John A. Ross and Regina McNamara, eds. Liège: Ordina Editions.

Khanna, J., P. F. A. Van Look and P. D. Griffin, eds. (1992). *Reproductive Health: A Key to a Brighter Future.* Biennial Report, 1990-91. Special Programme of Research, Development and Research Training in Human Reproduction. Geneva: World Health Organization.

Lapham, Robert J., and W. Parker Mauldin (1984). Family planning program effort and birthrate decline in developing countries. *International Family Planning Perspectives* (New York), vol. 10, No. 4 (December), pp. 109-118.

Mauldin, W. Parker (1992). Experiences in Asia, Latin America and the Caribbean, Africa, the Arab States and least developed countries. Paper presented at the United Nations Expert Group Meeting on Family Planning, Health and Family Well-being, Bangalore, India, 26-30 October.

_____, and John A. Ross (1991). *Family Planning Programs: Efforts and Results, 1982-89.* Working Paper No. 34. New York: The Population Council.

_____ (1991). Family Planning Programs: Efforts and Results, 1982-89. *Studies in Family Planning*, vol. 22, No. 6 (November/December), pp. 350-367.

Mosher, William D., and William F. Pratt (1990). *Contraceptive Use in the United States, 1973-88.* Advance Data from Vital and Health Statistics of the National Center for Health Statistics, No. 182. Hyattsville, Maryland: United States Department of Health and Human Services.

Muños-Perez, Francisco (1989). The decline of fertility in Southern Europe. *Population* (Paris), vol. 44, No. 5 (septembre), English selection No. 1, pp. 261-290.

Popov, Andrej A. (1991). Family planning and induced abortion in the USSR: basic health and demographic characteristics. *Studies in Family Planning* (New York), vol. 22, No. 6 (November/December), pp. 368-377.

_____ (1992). Induced abortions in the USSR at the end of the 1980s: the basis for the national model of family planning. Paper presented at the annual meeting of the Population Association of America, Denver, Colorado, 30 April-2 May.

_____, Adriaan Ph. Visser and Evert Ketting (1992). Contraceptive knowledge, attitudes and practice in Russia during the 1980s. *Studies in Family Planning* (New York), vol. 24, No. 4 (July-August), pp. 227-235.

Sardon, Jean-Paul (1990). Le remplacement des générations en Europe depuis le début du siècle. *Population* (Paris), vol. 45, No. 6 (novembre-décembre), pp. 947-967.

Statistical Office of the European Communities (1992). *Statistiques rapides: population et conditions sociales.* No. 2. Luxembourg: Eurostat.

Union of Soviet Socialist Republics, State Committee on Statistics (1990). *Demograficheskiy Ezhegodnik SSSR, 1990.* Moscow: Finance and Statistics.

Union of Soviet Socialist Republics, State Statistical Committee (1992a). Questionnaire of the one-time Sample Survey of Labour and Living Conditions of Soviet Women. Moscow. Unpublished.

Union of Soviet Socialist Republics, Committee for Statistics (1992b). *Uslovia Truda i Byeta Zenchin: Statisticheski Sbornik* (Labour and living conditions of women: collection of statistical materials). Moscow.

United Nations (1979). *Manual IX. The Methodology of Measuring the Impact of Family Planning Programmes on Fertility.* Population Studies, No. 66. Sales No. 78.XIII.8.

_____ (1982). *Evaluation of the Impact of Family Planning Programmes on Fertility: Sources of Variances.* Population Studies, No. 76. Sales No. E.81.XIII.9.

_____ (1984). *Levels and Trends of Contraceptive Use as Assessed in 1983.* Population Studies, No. 92. Sales No. E.84.XIII.5.

_____ (1985). *Studies to Enhance the Evaluation of Family Planning Programmes.* Population Studies, No. 87. Sales No. E.84.XIII.9.

_____ (1986). *Addendum. Manual IX. The Methodology of Measuring the Impact of Family Planning Programmes on Fertility.* Population Studies, No. 66/Add.1. Sales No. E.86.XIII.4.

_____ (1987). *Fertility Behaviour in the Context of Development: Evidence from the World Fertility Survey.* Population Studies, No. 100. Sales No. E.86.XIII.5.

_____ (1989). *Levels and Trends of Contraceptive Use as Assessed in 1988.* Population Studies, No. 110. Sales No. E.89.XIII.4.

_____ (1990). *Patterns of First Marriage: Timing and Prevalence.* Sales No. E.91.XIII.6.

_____ (1991). United Nations contraceptive-use data diskette, maintained by the Population Division of the Department for Economic and Social Information and Policy Analysis.

_____ (1992a). *Abortion Policies, A Global Review: Afghanistan to France.* Sales No. E.92.XIII.8.

_____ (1992b). *Long-range World Population Projections: Two Centuries of Population Growth, 1950-2150.* Population Studies, No. 125. Sales No. E.92.XIII.3.

_____ (1992c). 1992 revision of world population prospects: computerized data base and summary tables (computer printouts). New York: Population Division of the Department for Economic and Social Information and Policy Analysis.

_____ (1992d). *Patterns of Fertility in Low-fertility Settings.* Sales No. E.92.XIII.11.

_____ (1992e). *World Population Monitoring, 1991: With Special Emphasis on Age Structure.* Population Studies, No. 126. Sales No. E.92.XIII.2.

_____ (1993a). *Abortion Policies: A Global Review,* vol. II, *Gabon to Norway.* Sales No. E.94.XIII.2.

_____ (1993b). *Population Policies and Programmes.* Proceedings of the United Nations Expert Group Meeting, Cairo, Egypt, 12-16 April 1992. Sales No. E.93.XIII.5.

_____ (1993c). *World Population Prospects: The 1992 Revision.* Sales No. E.93.XIII.7.

United Nations Population Fund (1989). *Amsterdam Declaration: A Better Life for Future Generations.* New York.

_____(1992). *Population Issues. Briefing Kit 1992.* New York.

Vaessen, Martin (1981). Knowledge of contraceptives: an assessment of World Fertility Survey data collection procedures. *Population Studies* (London), vol. 35, No. 3 (November), pp. 357-373.

Weinberger, Mary Beth (1989). Trends in contraceptive prevalence: are prevalence rates stagnating? *IUSSP International Population Conference, New Delhi, 1989*, vol. I. Liège: Ordina Editions.

_____ (1991). Recent trends in contraceptive behavior. *Demographic and Health Surveys World Conference, Washington, D.C., 5-7 August 1991, Proceedings*, vol. I.

Westoff, Charles F. (1991). *Reproductive Preferences*. Demographic and Health Surveys Comparative Studies, No. 3. Columbia, Maryland: Institute for Resource Development/Macro Systems, Inc.

_____ (1992). Measuring the unmet need for contraception: comment on Bongaarts. *Population and Development Review* (New York), vol. 18, No. 1 (March), pp. 123-127.

Westoff, Charles F., and Luis Hernando Ochoa (1991). *Unmet Need and the Demand for Family Planning*. Demographic and Health Surveys Comparative Studies, No. 5. Columbia, Maryland: Institute for Resource Development/Macro Systems, Inc.

IV. MORTALITY

A. LEVELS AND TRENDS

358. The second half of the twentieth century has witnessed an impressive increase in the expected length of life in the world. According to United Nations estimates and projections, life expectancy at birth increased from 46.4 years in 1950-1955 to 57.9 years in 1970-1975, thus gaining an average of over half a year annually between the two periods. According to projected levels for 1990-1995, the expectation of life at birth will further increase by nearly seven years, reaching 64.7 years in 1990-1995 (table 38).

359. In the more developed regions, life expectancy at birth was already high in 1950-1955 (66 years), but it increased by five years between 1950-1955 and 1970-1975 and by about four years from 1970-1975 to 1990-1995. In the less developed regions, life expectancy at birth increased by nearly 14 years from 1950-1955 to 1970-1975, rising from 40.7 to 54.5 years; and it is expected to increase further by eight years between 1970-1975 and 1990-1995. Consequently, the differential in the life expectancy at birth between the more developed and the less developed regions has narrowed considerably since 1950, decreasing from 25 years in 1950-1955 to 17 years in 1970-1975 and declining further to 12 years in 1990-1995.

360. Although the least developed countries[1] also experienced a substantial increase in life expectancy at birth during the period considered (it rose from 35.7 years in 1950-1955 to 43.6 years in 1970-1975), they are expected to reach only 50.2 years in 1990-1995. Thus, there is a considerable potential for extending the average life-span of the population in those countries.

TABLE 38. ESTIMATES AND PROJECTIONS OF LIFE EXPECTANCY AT BIRTH, WORLD, MAJOR AREAS AND REGIONS, 1950-1995

Major area and region	*Life expectancy (years)*			*Increase*			
				1950–1955	*1970–1975*	*1970–1975*	*1990–1995*
	1950-1955	*1970-1975*	*1990-1995*	*Years*	*Percentage*	*Years*	*Percentage*
World	46.4	57.9	64.7	11.5	24.8	6.8	11.7
More developed regions	66.0	71.1	74.6	5.1	7.7	3.5	4.9
Less developed regions	40.7	54.5	62.4	13.8	33.9	7.9	14.5
Least developed countries	35.7	43.6	50.2	7.9	22.1	6.6	15.1
Africa	37.7	46.1	53.0	8.4	22.3	6.9	15.0
Eastern Africa	36.2	44.8	49.0	8.6	23.8	4.2	9.4
Middle Africa	36.0	43.9	51.0	7.9	21.9	7.1	16.2
Northern Africa	41.7	51.1	61.0	9.4	22.5	9.9	19.4
Southern Africa	44.2	53.4	62.5	9.2	20.8	9.1	17.0
Western Africa	35.6	43.3	51.1	7.7	21.6	7.8	18.0
Asia	41.0	56.1	64.8	15.1	36.8	8.7	15.5
Eastern Asia	42.9	64.1	71.7	21.2	49.4	7.6	11.9
South-eastern Asia	40.6	51.9	63.3	11.3	27.8	11.4	22.0
Southern Asia	38.8	49.5	59.4	10.7	27.6	9.9	20.0
Western Asia	43.2	56.5	66.4	13.3	30.8	9.9	17.5
Europe	65.7	71.5	75.2	5.8	8.8	3.7	5.2
Eastern Europe	62.7	70.1	71.3	7.4	11.8	1.2	1.7
Northern Europe	69.2	72.3	76.0	3.1	4.5	3.7	5.1
Southern Europe	63.4	71.4	76.1	8.0	12.6	4.7	6.6
Western Europe	67.6	71.8	76.4	4.2	6.2	4.6	6.4
Latin America	51.4	61.1	68.0	9.7	18.9	6.9	11.3
Caribbean	52.0	63.1	68.8	11.1	21.3	5.7	9.0
Central America	49.3	61.5	69.4	12.2	24.7	7.9	12.8
South America	52.0	60.7	67.4	8.7	16.7	6.7	11.0
Northern America	69.0	71.5	76.1	2.5	3.6	4.6	6.4
Oceania	61.1	66.8	72.6	5.7	9.3	5.8	8.7
Australia-New Zealand	69.5	71.7	76.7	2.2	3.2	5.0	7.0
Melanesia	37.5	50.4	58.5	12.9	34.4	8.1	16.1
Micronesia	47.5	57.5	67.3	10.0	21.1	9.8	17.0
Polynesia	55.9	63.9	70.8	8.0	14.3	6.9	10.8
USSR (former)[a]	64.1	68.6	70.4	4.5	7.0	1.8	2.6

Source: *World Population Prospects: The 1992 Revision* (United Nations publication, Sales No. E.93.XIII.7), table A-15.

[a]Not including Estonia, Latvia and Lithuania, which are included in Northern Europe.

361. Within the less developed regions, there is considerable variation in the life expectancy at birth. Between 1950-1955 and 1990-1995, Asia is expected to gain 24 years in life expectancy, Latin America 17 and Africa 15. Africa would have the lowest life expectancy at birth in 1990-1995 (53 years) and would be lagging 12 years behind Asia and 15 years behind Latin America. Within Africa, however, the expectation of life at birth in Northern and Southern Africa would exceed 60 years in 1990-1995, while that of the Eastern, Middle and Western Africa would be about 50 years. In Asia, the average life-span is expected to reach a low of 59 years in Southern Asia and a high of 72 years in Eastern Asia by 1990-1995. The higher level in Eastern Asia is due in part to the fact that the region includes Japan, a developed country. In contrast to Africa and Asia, the Latin American regions exhibit only small variations in terms of expected life expectancy at birth in 1990-1995, ranging from 67 to 69 years. In the developing countries of Oceania, the life expectancy at birth in 1990-1995 is expected to range from 59 years in Melanesia to 67 years in Micronesia and 71 years in Polynesia.

362. By the early 1950s, the more developed regions had already attained relatively high levels of life expectancy at birth and there were small differentials between them. In Europe, Northern America and Australia–New Zealand, life expectancy was already over 65 years; and in the former USSR[2] it had reached 64 years. However, whereas by 1990-1995 the average life-span in Europe, Northern America and Australia–New Zealand is expected to exceed 75 years, that for Eastern Europe and the former USSR is expected to reach only 70 years.

363. In the following sections, levels and trends of mortality are discussed separately for developed and developing countries. In view of the importance of maternal mortality and AIDS, separate sections are devoted to those issues. The last section deals with mortality policies.

1. *Developed countries*

364. The preceding brief overview of regional mortality trends is based on estimated and projected mortality levels for all countries in the world. In fact, most countries lack information that would allow the estimation of mortality for the period 1990-1995. The levels presented for that period are therefore projected from past trends. Developed countries are characterized by having reliable and relatively up-to-date information that allow the estimation of both expectation of life at birth and infant mortality. Thus, in most countries, estimates of life expectancy are available up to 1989 or 1990, and infant mortality can be estimated for 1991 for about one fourth of all the developed countries. Mortality trends are reviewed below on the basis of those two mortality indicators.

Life expectancy at birth

365. During 1980-1990, there was a slow but continuous increase in life expectancy at birth in all the developed countries. In particular, Albania, Austria, France, Germany, Ireland, Japan, Malta and Portugal experienced an increase of at least two years of life expectancy at birth for both males and females during that period. Whereas in 1980 none of the developed countries had reached a female life expectancy at birth of 80 years, by 1985 in Canada, Japan and Switzerland the average life-span for a newborn girl had reached that level, and five more countries — Australia, France, Iceland, the Netherlands and Sweden — had reached 80 years by 1990. Norway, with a female life expectancy at birth of 79.8 years, is expected to reach that level soon (table 39).

366. Japan, which ranked sixth in terms of female life expectancy at birth in 1980, moved to first place in 1985 and has since maintained that rank. In 1990, a newborn girl in Japan was expected to live 81.8 years on average, while the equivalent figure for a newborn boy was 75.9 years (figure 31). By 1990, France ranked second with a female life expectancy at birth of 80.9 years and Canada third with 80.5 years. Although the most recent estimates available indicate that female life expectancy at birth is over 70 years in all the developed countries, substantial differences prevail among them. Thus, Eastern and Southern European countries have relatively lower life expectancies at birth, for both males and females, than those of Northern and Western Europe (table 39). Romania ranked last; in 1989, its female life expectancy at birth was 72.6 years—9.2 years less than that of Japan. For males, the former USSR had the lowest life expectancy (64.6 years; see box 16), that is, 11.3 years lower than that for Japan (75.9 years). Such a substantial gap in life expectancy suggests that there is considerable room for improvement in the developed countries as a whole.

367. The improvement in life expectancy experienced by the developed countries during the second half of the twentieth century was accompanied by an increasing disparity between female and male mortality that has only recently began to narrow. Thus, the difference between female and male life expectancy at birth in the more developed regions rose from 5.3 years in 1950-1955 to 7.5 in 1980-1985 and declined to 7.1 years in 1985-1990 (United Nations, 1993).

368. The sex differentials in life expectancy at birth between 1980 and the most recent period for individual developed countries are displayed in figure 32. In 1980, those sex differentials ranged from 4.2 years in Malta to 10.2 in the former USSR. In 1989, the range had narrowed slightly, still having a low of 4.2 years for Malta and a high of 9.4 years in the former USSR. Thus, during the 1980s, Malta and the former USSR maintained their position by being those with the smallest and largest sex differentials in life expectancy at birth among the developed countries.

369. During the 1980s, Eastern European countries experienced rising sex differentials in life expectancy at birth, whereas in Northern European countries those differentials narrowed. The pattern among Southern and Western European countries was not as distinct. In a study on the position of women and mortality in the developed countries, Nathanson (1992) notes that women in Northern European countries are more likely to be smokers and smoking has been identified as the strongest predictor of changes in life expectancy at birth. Furthermore, the reduction in the sex differentials in mortality observed in Australia, Austria, Canada, the Netherlands, Switzerland and the United States of America was strongly correlated with the higher proportions of smokers among women in those countries. Indeed, mortality due to lung cancer among women has increased in those countries, while male mortality associated with lung cancer either has decreased or increased less than that among women (Waldron, 1992).

370. In Eastern European countries, the rise in the sex differentials in life expectancy has been attributed to the increase in mortality due to ischaemic heart disease, which is highly associated with cigarette smoking and the consumption of animal fats. Since the female hormones protect women against the negative effects of a high-fat diet, the increased consumption of animal fats elevates the risk of

BOX 16. MORTALITY IN THE SUCCESSOR STATES OF THE FORMER UNION OF SOVIET SOCIALIST REPUBLICS

The estimates of expectation of life at birth and infant mortality rates (IMR) presented elsewhere in this volume (tables 39 and 40) refer only to the former USSR as a whole. That area now comprises 15 independent States: the three Baltic republics, Estonia, Latvia and Lithuania; and the 12 republics that have constituted themselves into the Commonwealth of Independent States. In 1989, life expectancy for males in the former USSR as a whole was 64.6 years and that for females was nearly a decade longer, 74.0 years. The infant mortality rate in 1989 stood at 23 deaths under age 1 per 1,000 live births.

Estimates of life expectancy at birth and IMRs for those countries during the period 1985-1990 show major variations in the levels of mortality (see table).

MORTALITY INDICATORS FOR 15 REPUBLICS OF THE FORMER USSR, 1985-1990

Country	Life expectancy at birth (years)	Infant mortality rate (per 1,000)	Country	Life expectancy at birth (years)	Infant mortality rate (per 1,000)
Armenia	71	23	Lithuania	72	12
Azerbaijan	70	28	Republic of Moldova	68	24
Belarus	72	13	Russian Federation	70	19
Estonia	70	15	Tadjikistan	70	46
Georgia	72	22	Turkmenistan	65	54
Kazakhstan	69	28	Ukraine	71	14
Kyrgyzstan	68	36	Uzbekistan	69	43
Latvia	70	12			

Source: World Population Prospects: The 1992 Revision (United Nations publication, Sales No. E.93.XIII.7), table 16.

Life expectancy for both sexes combined ranged from 72 years in Belarus, Georgia and Lithuania to only 65 in Turkmenistan. The range in IMRs was even greater: from 12 infant deaths per 1,000 births in Latvia and Lithuania to 54 in Turkmenistan. The populations of the Central Asian republics (Kazakhstan, Kyrgyzstan, Tadjikistan, Turkmenistan and Uzbekistan) were, in general, worse off in terms of levels of mortality than those in the European republics, whereas people in the Baltic countries fared best. The average life expectancy for the Central Asian countries was 68 years in 1985-1990, compared with 71 years in the remaining 10 countries. The average infant mortality rate in the Central Asian countries was more than three times that in the Baltic States and more than double that in the European countries (Belarus, Republic of Moldova, Russian Federation and Ukraine). Although differences in life expectancy and IMRs reflect for the most part different development levels among the republics, they may also derive from the varying quality of vital registration statistics.

Most recent mortality estimates for some of the republics reflect a deterioration of conditions related to health. In the Russian Federation, life expectancy decreased from 69.2 years in 1990 to 69 in 1991 and 67.9 in 1992; while the IMR increased from 17.4 deaths per 1,000 births to 18. A similar trend was reported for Ukraine and Kazakhstan, where IMR increased from 12.9 and 26.5 per 1,000 births to 15.1 and 30.7, respectively[a].

[a]Information from United Nations Statistical Division, the Statistical Committee of the Commonwealth of Independent States and national statistical offices.

ischaemic heart disease more among men than among women. Waldron (1992) also notes that, as a result of continued increase in smoking and occupational hazards, mortality due to lung cancer is responsible for a greater proportion of total mortality among men than among women.

Infant mortality

371. As part of the general improvement of survivorship probabilities experienced by the developed countries, the infant mortality rate continued to decline during the 1980s. Whereas in 1980 only eight countries had IMRs of fewer than 10 deaths per 1,000 live births, by 1990, 22 countries had attained similar levels: Australia, Canada, Greece, Italy, Japan, New Zealand, Spain, the United States, and all the countries in Northern and Western Europe (table 40). Infant mortality reached a minimum in Japan and Sweden where it was fewer than five deaths per 1,000 live births in 1991. The only developed countries with IMRs of more than 20 in 1990 were Albania, Romania, the former USSR and Yugoslavia (figure 33).

372. Despite the low levels of infant mortality attained by the developed countries in 1980, several countries continued to experience a marked improvement in the survivorship probabilities of their children. Thus, in most countries, infant mortality dropped by at least one third during the 1980s. Indeed, Germany and Portugal reduced their infant mortality rates by more than half during that period.

2. *Developing countries*

373. In contrast with developed countries, developing countries often lack the data necessary to estimate mortality indicators. As table 41 and annex tables A.7-A.9 indicate, although data availability has clearly improved, many gaps still remain. In particular, estimates of the expectation of life at birth are lacking for most African countries and for many Asian countries. Among the 120 developing countries with an estimated population of 300,000 or more in 1990, estimates of life expectancy at birth are available only for 62 countries (slightly over half), while infant and child mortality estimates are available for 94 (approximately four fifths). There are still 26 countries, 15 in Africa and 11 in Asia and Oceania, that have no data on mortality after 1970. Most of the latter countries have experienced war or civil strife and their mortality levels are likely to be near the higher ranges.

374. The required data are generally available for Latin American countries. The improvement of vital registration in Latin America permits the derivation of estimates of life expectancy at birth for most countries. With the added availability of surveys, estimates of infant and child mortality could be obtained for all Latin American countries.

375. At the level of all the developing countries, infant and child mortality estimates for 1985 or later are available for nearly half the countries, but fewer than one fifth had the data necessary to derive estimates of life expectancy at birth. This is due to the fact that the child survivorship data required to estimate infant and child mortality are becoming

TABLE 39. LIFE EXPECTANCY AT BIRTH, BY SEX, DEVELOPED COUNTRIES, 1980-1990
(Years)

Region and country or area	*Type*[a]	*Males*							*Females*						
		1980	*1985*	*1986*	*1987*	*1988*	*1989*	*1990*	*1980*	*1985*	*1986*	*1987*	*1988*	*1989*	*1990*
Asia															
Eastern Asia															
Japan	A	73.4	74.8	75.2	75.6	75.5	75.9	75.9	78.8	80.5	80.9	81.4	81.3	81.8	81.8
Europe															
Eastern Europe															
Bulgaria	B	68.4	68.3	68.6	68.3	..	68.2	68.2	73.9	74.3	74.7	74.6	. .	74.8	74.8
Czechoslovakia[b]	A,B	66.8	67.3	67.4	67.6	67.8	67.7	67.3	74.0	74.7	74.8	75.1	75.3	75.3	75.8
Hungary	A	65.5	65.3	65.3	65.7	66.2	65.4	65.1	72.7	73.1	73.2	73.7	74.0	73.8	73.7
Poland	A	66.0	66.5	66.8	66.8	67.2	66.8	66.5	74.4	74.8	75.1	75.2	75.7	75.5	75.5
Romania	B	66.6	67.1[c]	..	..	..	66.6	..	71.9	72.7[c]	..	..	..	72.6	..
Northern Europe															
Denmark[d, e]	A	71.1	71.6	71.8	71.8	..	72.0	..	77.2	77.5	77.6	77.7	..	77.7	..
Finland	A	69.2	70.1	70.5	70.7	70.7	70.9	..	77.6	78.5	78.7	78.7	78.7	78.9	..
Iceland[f]	A	73.5	74.1	75.0	74.6[e]	75.2[e]	75.7[e]	..	79.5	79.9	80.4	79.7[e]	79.9[e]	80.3[e]	..
Ireland	B	69.9	70.7	70.8	71.6	71.6	71.6	71.9	75.2	76.5	76.4	77.3	76.9	77.0	77.2
Norway	A	72.5[e]	72.6	72.9	72.8	73.1	73.3	73.4	79.2[e]	79.4	79.7	79.6	79.6	79.9	79.8
Sweden	A	72.8	73.8	74.0	74.2	74.2	74.8	74.8	78.8	79.7	80.0	80.2	80.0	80.6	80.4
United Kingdom[g]	A,B	70.6[h]	71.7[h]	71.9[h]	72.1[h]	72.4[h]	72.1	72.9	76.7[h]	77.5[h]	77.6[h]	77.9[h]	78.0[h]	77.8	78.2
Southern Europe															
Albania[e]	A	67.0	68.5	68.8	69.4	69.6	69.3	..	72.0	73.9	75.5	74.9	75.5	75.4	..
Greece[i]	—	72.2	72.5	73.1	72.9	..	..	..	76.4	77.2	77.6	77.4	..	..	..
Italy	B	71.0	72.2	72.7	73.0	73.0	..	..	77.6	78.7	79.2	79.2	79.3	..	..
Malta	A	68.5	70.8	72.3	72.5	72.8	73.8	..	72.7	76.0	76.8	77.0	77.6	78.0	..
Portugal	B	67.5	69.6	70.1	70.6	70.5	70.5	..	74.6	76.6	77.1	77.5	77.6	77.5	..
Spain[e]	A	72.5	73.3	..	..	..	..	..	78.6	79.7	..	..	..	..	..
Yugoslavia	A	67.7[e]	68.4[e]	..	..	68.4[h]	68.6[h]	..	73.2[e]	73.8[e]	..	..	74.3[h]	74.5[h]	..
Western Europe															
Austria	A	69.0	70.4	71.0	71.5	72.0	72.1	72.5	76.1	77.4	77.7	78.1	78.6	78.8	79.0
Belgium	B	69.8	..	70.9	..	..	..	..	76.6	..	77.7	..	..	..	..
France	A	70.2	71.3	71.5	72.0	72.3	..	72.8	78.4	79.4	79.7	80.3	80.5	..	80.9
Germany[j]	A	69.6	70.9	71.2	71.6	71.7	72.0	..	76.0	77.3	77.6	78.1	78.4	78.6	..
Luxembourg	A	70.0[k]	..	70.6[h]	..	..	. .	..	76.7[k]	..	77.9[h]	..	..	..	..
Netherlands	A	72.5	73.1	73.1	73.5	73.7[e]	73.7[e]	..	79.2	79.7	79.6	80.1	80.2[e]	79.9[e]	..
Switzerland[l]	A,B	72.3	73.6[e]	73.8[e]	73.6	73.9[h]	74.0[e]	..	79.0	80.3[e]	80.5[e]	80.1	80.7[h]	80.0[e]	..
Northern America															
Canada	B	71.5	73.0	73.1	73.4	73.4	73.7	..	78.9	80.0	79.9	80.2	80.3	80.5	..
United States of America	A	70.0	71.2	71.3	71.5	71.5	71.8	..	77.4	78.2	78.3	78.4	78.3	78.6	..
Oceania															
Australia–New Zealand															
Australia[m]	A,B	71.2[k]	72.3	72.8	73.0	73.1	73.3	73.9	78.3[k]	78.8	79.1	79.5	79.2	79.6	80.0
New Zealand	A	70.4[k]	71.0	71.1[h]	71.0[h]	71.6[h]	71.9[h]	..	76.4[k]	76.9	77.1[h]	77.3[h]	77.6[h]	78.0[h]	..
USSR (former)	A	62.3[e]	64.2[e]	65.0[e]	..	...	64.6	..	72.5[e]	73.3[e]	73.8[e]	..	..	74.0	..

Sources: National publications; World Health Organization data bank; and data supplied by the United Nations Statistical Division; for Germany, *Demographic Yearbook, 1991* (United Nations publication, Sales No. E.92.XIII.1); *World Population Monitoring, 1991: With Special Emphasis on Age Structure*, Population Studies, No. 126 (United Nations publication, Sales No. E/F.92.XIII.2).

[a]Type A refers to official life-tables prepared by the countries; type B to life-tables constructed by the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat from data on registered deaths and population estimates in the WHO data bank and the United Nations Statistical Division.

[b]For 1989, type B.

[c]For 1984.

[d]Excluding Faeroe Islands and Greenland.

[e]Data are for a two-year period, with the first year corresponding to the year shown in the column heading.

[f]1980, 1985 and 1986 refer to 1976-1980, 1981-1985 and 1985-1986, respectively.

[g]For 1989 and 1990, type B.

[h]Data are for a three-year period centred on the year shown in the column heading.

[i]1985-1987, estimated values. Because of substantial differences in life expectancy values between the official life-table for Greece for 1980 and the life-table calculated by the United Nations for 1980, the life expectancy values shown for 1985, 1986 and 1987 have been estimated by adding the increments in life expectancy observed between 1980 and later years (namely, 1985, 1986 and 1987) in the life-tables calculated by the United Nations to the official life expectancy values for 1980.

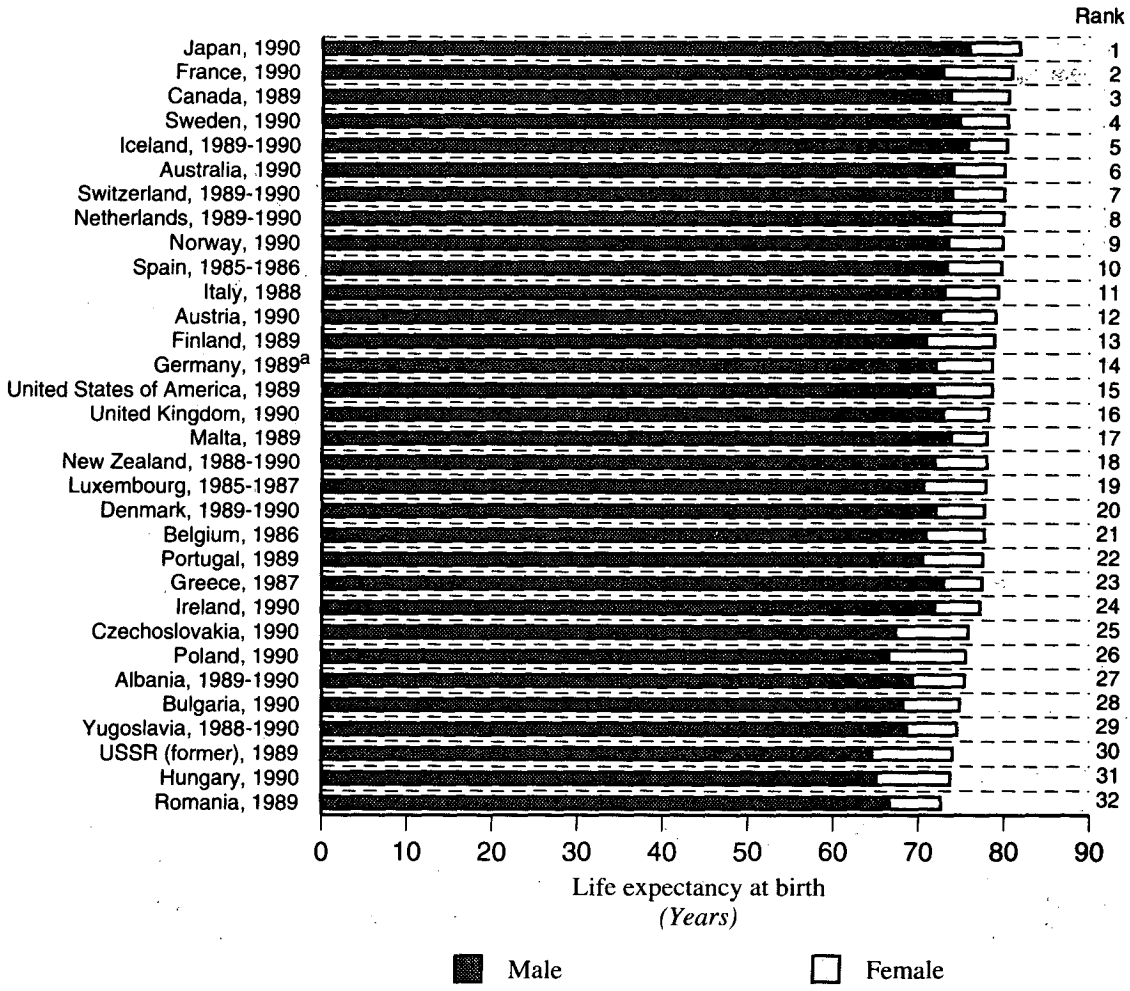
[j]Data for Germany prior to 3 October 1990 are averages of the separate life expectancies of the former Federal Republic of Germany and the former German Democratic Republic, weighted by live births.

[k]For 1980-1982.

[l]For 1980 and 1987, type B.

[m]For 1988, type B.

Figure 31. Male and female life expectancy at birth, developed countries or areas ranked according to female life expectancy at birth, most recent available data



[a]Data for Germany prior to 3 October 1990 are averages of the separate life expectancies of the former Federal Republic of Germany and the former German Democratic Republic, weighted by live births.

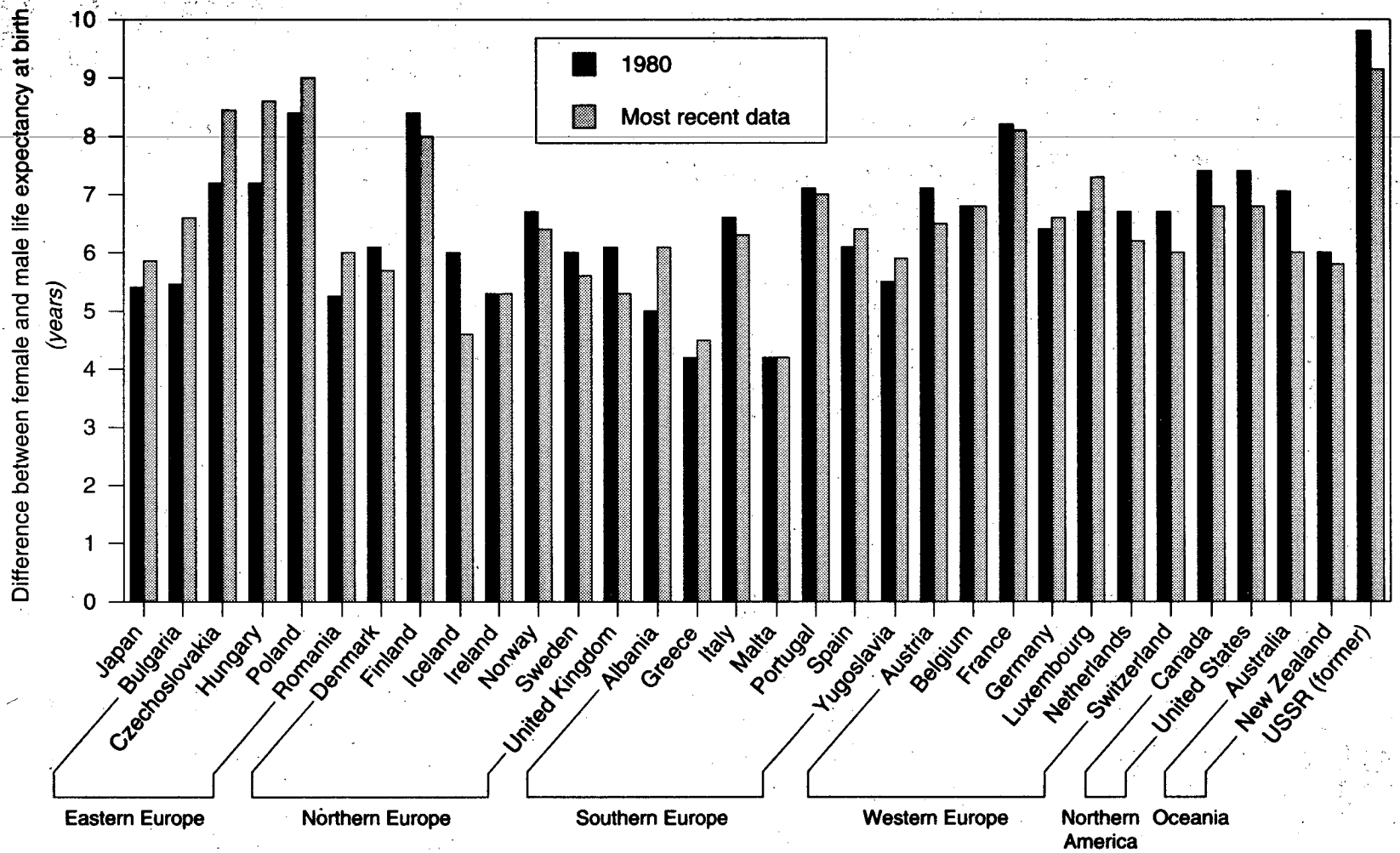
widely available from censuses and surveys, whereas the data needed to derive expectation of life at birth, namely, the number of deaths by age and sex, cannot be obtained with sufficient reliability from those sources.

376. The following estimates of expectation of life and infant and child mortality for the developing countries of Africa, Asia and Oceania, and Latin America are derived from a variety of sources, including censuses, sample surveys and vital registration referring to a period since 1970 (annex tables A.7-A.9). The estimates, which are updated and revised versions of those included in *World Population Monitoring, 1991* (United Nations, 1992c), were obtained by applying standard estimation techniques for countries with reasonably reliable data. Because reliable estimates of life expectancy at birth are not available for many African and some Asian countries, in the discussion of levels and trends of mortality, the information available is supplemented by estimates and projections prepared by the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat. Those estimates, which are not shown here in their totality, are available in *World Population Prospects: The 1992 Revision* (United Nations, 1993) and were derived mainly from estimates of child mortality on the basis of assumptions concerning the relation between child and adult mortality. As noted earlier, as more information is available on infant and child mortality than on life expectancy at birth, the mortality situations are elucidated by considering them separately.

Life expectancy at birth

377. Annex table A.7 and figure 34 show not only that mortality is high in most African countries but that only a few countries have the necessary data. Indeed, in sub-Saharan Africa, only Mauritius, Réunion and Seychelles have a reliable vital registration system allowing the derivation of life-tables. Because all three are small island countries with low mortality (the most recent estimated life expectancy at birth is 69 years), they are scarcely representative of the subcontinent. Among African countries with a population of 300,000 or more, Algeria and South Africa have attained a life expectancy at birth of over 60 years. In contrast, a majority of countries in sub-Saharan Africa were estimated to have a life expectancy at birth of less than 50 years in 1985-1990 (United Nations, 1993).

Figure 32. Difference between female and male expectancy at birth, developed countries or areas, 1980 and most recent data



Source: table 39.

[a]Data for Germany prior to 3 October 1990 are averages of the separate life expectancies of the former Federal Republic of Germany and the former German Democratic Republic, weighted by live births.

TABLE 40. INFANT MORTALITY RATES, DEVELOPED COUNTRIES, 1980-1991
(Per 1,000 live births)

Region and country or area	Infant mortality rates								Change, 1980-1990 (percentage)
	1980	1985	1986	1987	1988	1989	1990	1991	
Asia									
Eastern Asia									
Japan	7.5	5.5	5.2	5.0	4.8	4.6	4.6	...	39
Europe									
Eastern Europe									
Bulgaria	20.2	15.4	14.7	14.7	13.6	14.4	14.8	16.9	16[a]
Czechoslovakia	18.4	14.0	13.4	12.9	11.9	11.3	11.3	11.5	38[a]
Hungary	23.2	20.4	19.0	17.3	15.8	15.7	14.8	..	36
Poland	21.3	18.5	17.5	17.5	16.2	16.0	16.0	14.8	30[a]
Romania	29.3	25.6	..	28.9	25.4	26.9	26.9	..	8
Northern Europe									
Denmark	8.4	7.9	8.2	8.3	7.6	8.1	7.5	..	11
Finland	7.6	6.3	5.8	6.2	6.0	5.8	..	..	24[b]
Iceland	7.7	5.7	5.4	7.2	6.2	5.3	5.9	5.5	29[a]
Ireland	11.1	8.8	8.9	7.9	8.9	8.1	8.2	..	26
Norway	8.1	8.5	7.8	8.4	8.0	7.8	6.9	..	15
Sweden	6.9	6.8	5.9	6.1	5.8	6.0	5.6	3.8	45[b]
United Kingdom	12.2	9.4	9.5	9.1	9.0	8.4	7.9	..	35
Southern Europe									
Albania	50.3	30.1	..	28.2	25.2	30.8	28.3	..	44
Greece	17.9	14.1	12.3	12.6	11.0	9.8	..	..	45[a]
Italy	14.6	10.9	9.9	9.5	9.5	8.8	8.5	..	42
Malta	15.2	13.6	10.1	7.3	7.9	10.4	11.3	..	26
Portugal	24.3	17.8	15.9	14.2	13.1	12.2	11.0	..	55
Spain	12.3	8.5	9.2	9.0	8.1	7.8	7.7	..	37
Yugoslavia[c]	31.4	28.2	26.7	25.1	24.5	23.7	20.2	..	36
Western Europe									
Austria	14.3	11.2	10.3	9.8	8.1	8.3	7.9	7.5	48[a]
Belgium	12.1	9.4	9.7	9.7	9.2	8.6	7.9	..	35
France	10.0	8.3	8.0	7.8	7.8	7.4	7.3	7.2	28[a]
Germany[d]	12.5	9.1	8.8	8.4	7.6	7.4	5.6	..	55
Luxembourg	11.5	9.0	7.9	9.4	8.7	9.9	7.3	..	37
Netherlands	8.6	8.0	7.7	7.6	6.8	6.8	7.1	6.5	24[a]
Switzerland	9.1	6.9	6.8	6.8	6.8	6.8	6.8	6.8	25[a]
Northern America									
Canada	10.4	7.9	7.9	7.3	7.2	7.1	..	..	32[b]
United States of America	12.6	10.6	10.4	10.1	10.0	9.7	9.1	..	28
Oceania									
Australia-New Zealand									
Australia	10.7	9.9	8.8	8.7	8.7	8.0	..	..	25[b]
New Zealand	12.9	10.8	11.2	10.0	10.8	10.2	8.3	..	36
USSR (former)	27.3	26.0	25.1	25.4	24.9	23.0	..	..	16[b]

Sources: Demographic Yearbook, 1986 (United Nations publication, Sales No. E/F.87.XIII.1), table 9; *Demographic Yearbook, 1990* (United Nations publication, Sales No. E/F.91.XIII.1), table 15; *Population and Vital Statistics Report: Data Available as of 1 January 1993*, Statistical Paper Series A, vol. XLV, No. 1 (United Nations publication, ST/ESA/STAT/SER.A/184); *World Health Statistics Annual, 1987* (Geneva, 1987), table 10; and national publications. For Germany, *Demographic Yearbook, 1991* (United Nations publication, Sales No. E.92.XIII.1); *World Population Monitoring, 1991: With Special Emphasis on Age Structure*, Population Studies, No. 126 (United Nations publication, Sales No. E/F/92./XIII.2).

[a]For 1980-1991.

[b]For 1980-1989.

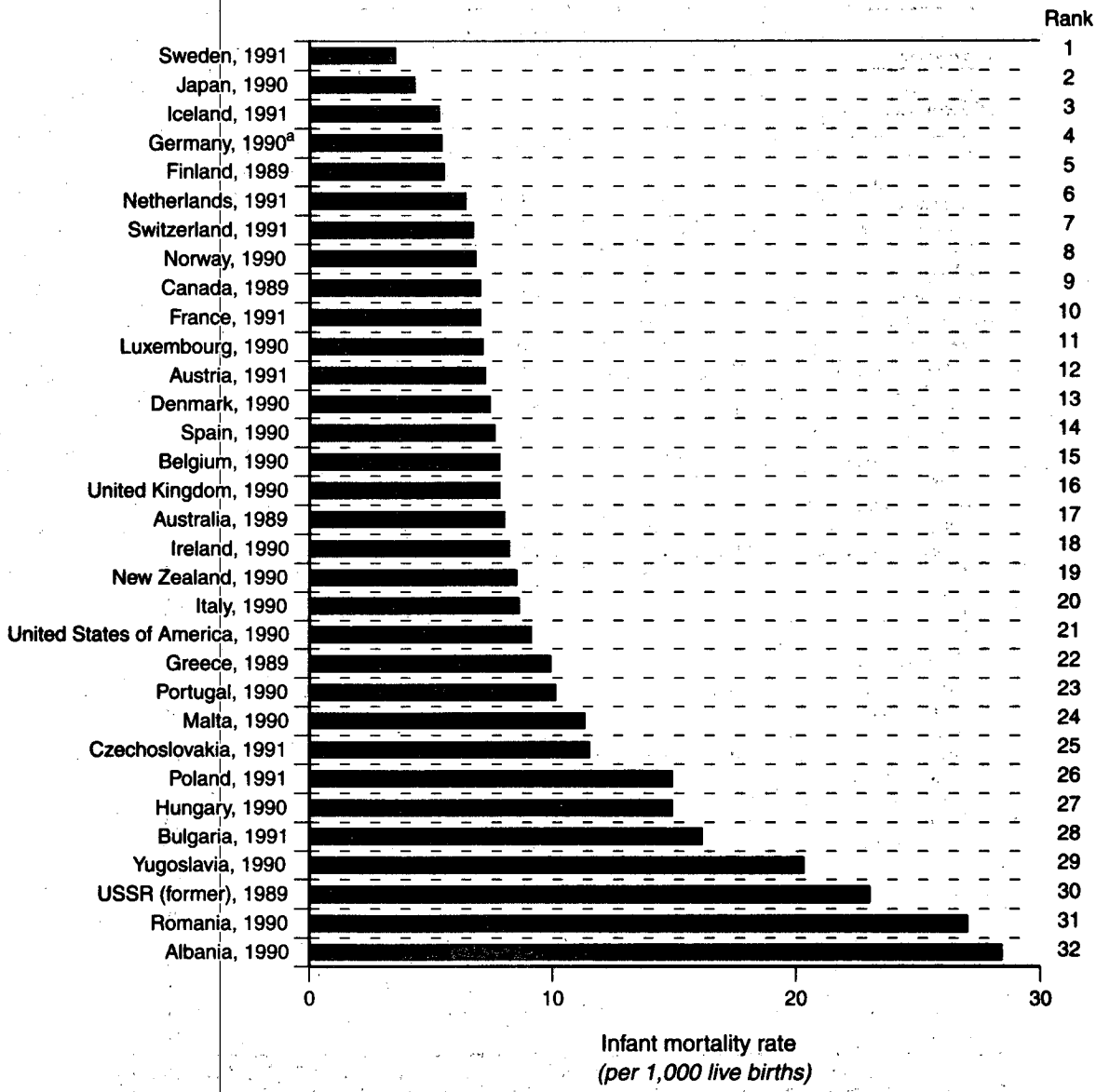
[c]Data for the period prior to 27 April 1992 refer to the former Socialist Federal Republic of Yugoslavia in terms of its boundaries as they existed prior to that date.

[d]Data for Germany prior to 3 October 1990 are averages of the separate life expectancies of the former Federal Republic of Germany and the former German Democratic Republic, weighted by live births.

378. Data on life expectancy at birth for at least two points in time are available for eight African countries, allowing the estimation of the rate of change. In Algeria, the only country in Northern Africa with a series of life-tables derived from vital registration, life expectancy rose from 57 years in 1978 to 64 in 1985, an increase of one year per annum. In Réunion, it increased from 62 to 69 years between 1970 and 1980-1983. In Seychelles, life expectancy reached the relatively high level of 68 years in 1974-1978 and remained at 69-70 years during 1980s. In Mauritius, where mortality was already low in 1971-1973 (the expectation of life was 63 years), it decreased further to yield a life expectancy of 68 years in 1983 and 69 in 1988-1990. Burundi, Morocco, South Africa and Swaziland, where life expectancies have been estimated from censuses and surveys, also experienced a significant mortality decline, with life expectancy rising by at least half a year annually.

379. Life expectancy in the countries or areas of Asia and Oceania varies over a relatively wide range. As annex table A.8 and figure 34 show, several of them have shown a sig-

Figure 33. Infant mortality rates, developed countries or areas ranked according to level of infant mortality, most recent available data



Source: Table 40.

[a]Data for Germany prior to 3 October 1990 are averages of the separate life expectancies of the former Federal Republic of Germany and the former German Democratic Republic, weighted by live births.

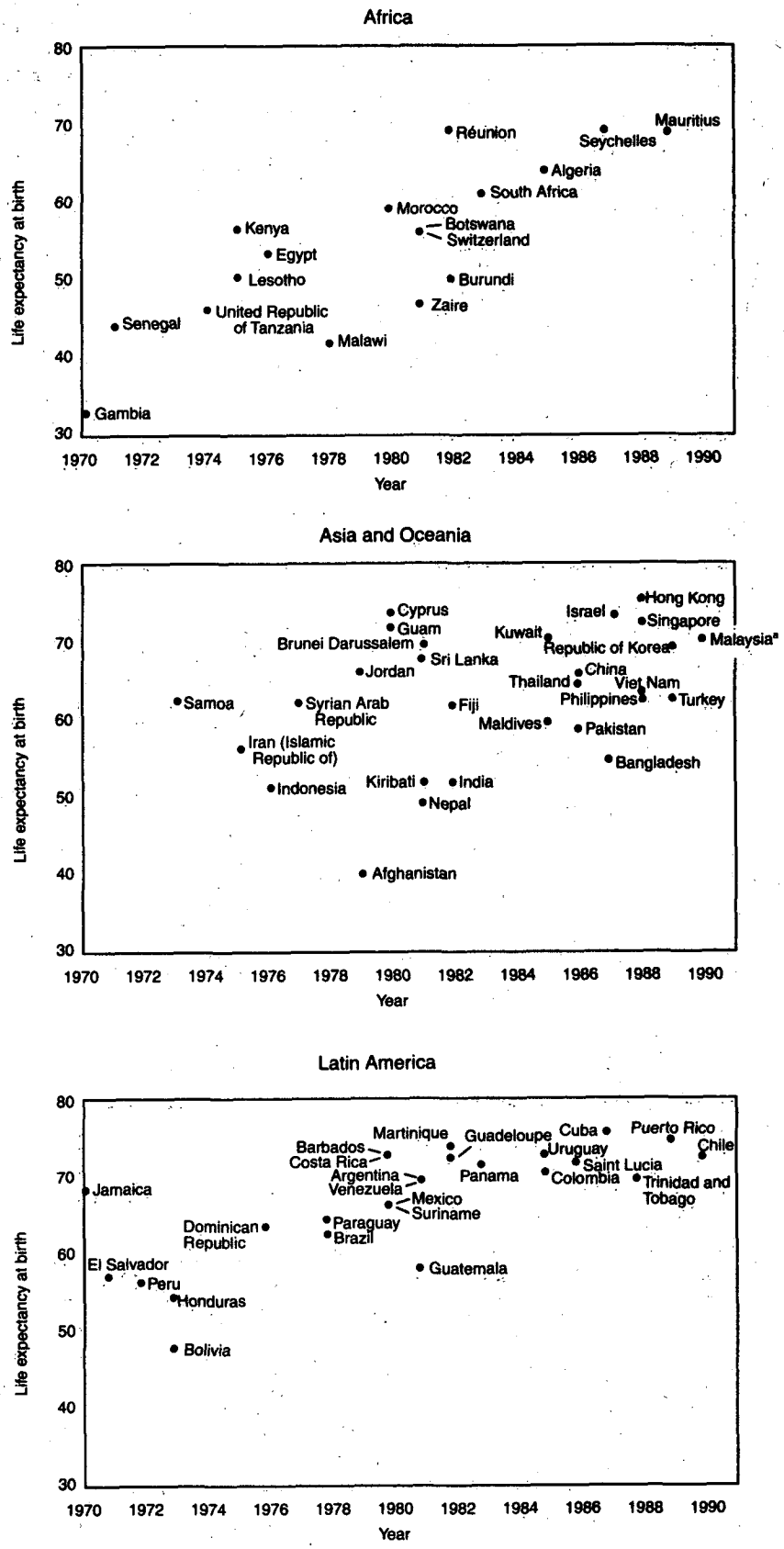
TABLE 41. DISTRIBUTION OF DEVELOPING COUNTRIES[a] WITH RELATIVELY RELIABLE DATA ACCORDING TO REFERENCE PERIOD OF THE MOST RECENT ESTIMATE SINCE 1970

		Number of countries									
		With estimates of life expectancy at birth					With estimates of infant and child mortality				
Major area	*Number of countries in area*	*Total*	*Prior to 1975*	*1975-1979*	*1980-1984*	*1985- and later*	*Total*	*Prior to 1975*	*1975-1979*	*1980-1984*	*1985- and later*
Africa	51	16	3	4	7	2	36	2	9	12	13
Asia and Oceania	42	23	--	5	5	13	31	--	3	5	23
Latin America	27	23	5	3	9	6	27	--	--	5	22
TOTAL	120	62	8	12	21	21	94	2	12	22	58

Sources: Annex tables A.7-A.9.

[a]Countries with an estimated population of 300,000 or more in 1990.

Figure 34. Life expectancy at birth in developing countries or areas, most recent available data



Sources: Annex tables A.7-A.9.
[a]Data for Peninsular Malaysia only.

nificant improvement in survivorship, reaching a life expectancy at birth of over 70 years during the 1980s.

380. In Eastern Asia, Hong Kong and the Republic of Korea have recorded impressive declines in mortality. According to the life-tables derived from the vital registration system, Hong Kong has reached the lowest mortality among all the developing countries and areas of the world, having a life expectancy of 77 years in 1987-1989 (80 years for females and 74 years for males). In China, however, life expectancy appears to have changed little during the 1980s.

381. Brunei Darussalam, Malaysia (Peninsular) and Singapore in South-eastern Asia have also attained mortality levels comparable to those of the developed countries, with recent life expectancy estimates exceeding 70 years. Moderate improvements in survivorship were recorded by Thailand and the Philippines, where expectation of life at birth reached 66 years in 1985-1986 and 64 in 1987-1989, respectively. In contrast, Cambodia, East Timor and the Lao People's Democratic Republic still have very high mortality levels, with life expectancy estimated at below 50 years (United Nations, 1993).

382. In Southern Asia, only Sri Lanka has achieved low mortality: life expectancy at birth reached 69 years in 1980-1981 and is estimated to exceed 70 years in 1985-1990. Maldives and Pakistan attained a life expectancy of 60 years in the mid-1980s. Although in Bangladesh and Nepal life expectancy increased by one year per annum and in India by half a year per annum during the 1970s and 1980s, life expectancy remained relatively low: 50 years in Nepal (1981); 53 in India (1981-1983); and 56 in Bangladesh (1987). In the Islamic Republic of Iran, the expectation of life was estimated to be 57 years in 1973-1976 and has probably increased further. In Afghanistan and Bhutan, mortality was and remains high, with life expectancy estimated to be still under 50 years.

383. In Western Asia, several countries have experienced very rapid declines in mortality. Cyprus and Israel have achieved the lowest mortality in the region with life expectancies of 75 years, followed by 72 years in Kuwait. Turkey had a life expectancy at birth of 64 years in 1989, while Jordan and the Syrian Arab Republic had reached that level in the late 1970s. Estimates for 1985-1990 show that, excluding Yemen where life expectancy was only 50 years, all the countries in the region have attained low mortality, having an expectation of life of 65 years or more. In Bahrain and the United Arab Emirates, the estimated life expectancy in 1985-1990 was 70 years (United Nations, 1993).

384. In Oceania, Guam is the only developing country that has attained low mortality, with life expectancy estimated at 73 years for 1979-1981. The expectation of life at birth was estimated at 63 years for Samoa in 1973 and for Fiji in 1982.

385. In comparison with those in other less developed regions, Latin American countries have a relatively high life expectancy at birth, exceeding 70 years in the majority of cases (annex table A.3 and figure 34). Cuba, with 75 years of life expectancy at birth in 1987, had the highest level in Latin America, followed by Puerto Rico (74 years in 1988-1990) and Martinique (73 years in 1981-1983). All the Caribbean countries except the Dominican Republic and Haiti have an estimated life expectancy of over 70 years.

386. Costa Rica and Panama in Central America have also achieved very low mortality and a life expectancy of more than 70 years. Mexico experienced a modest decline in mortality during the 1970s, with its life expectancy rising from 61 years in 1969-1971 to 66 in 1979-1981 and estimated to be 69 in 1985-1990. In South America, Chile and Colombia have shown a significant increase in life expectancy at birth: in the former country, it rose from 62 years in 1969-1971 to 71 in 1981-1983, while in the latter it increased from 60 years in 1973 to 70 in 1985. In Brazil, life expectancy increased from 58 years in 1970 to 60 in 1975 and is currently estimated at 65 years.

387. As shown in figure 34, only five Latin American countries had a life expectancy at birth of less than 60 years, according to the most recent figures available, namely, El Salvador, Guatemala and Honduras in Central America, and Bolivia and Peru in South America. For all of them, however, the most recent data available refer to 1981 or earlier. According to the comprehensive estimates prepared by the Population Division of the Department for Economic and Social Information and Policy Analysis, for projection purposes, only two Latin American countries, namely, Haiti in the Caribbean and Bolivia in South America, had an estimated life expectancy below 60 years in 1985-1990 (United Nations, 1993).

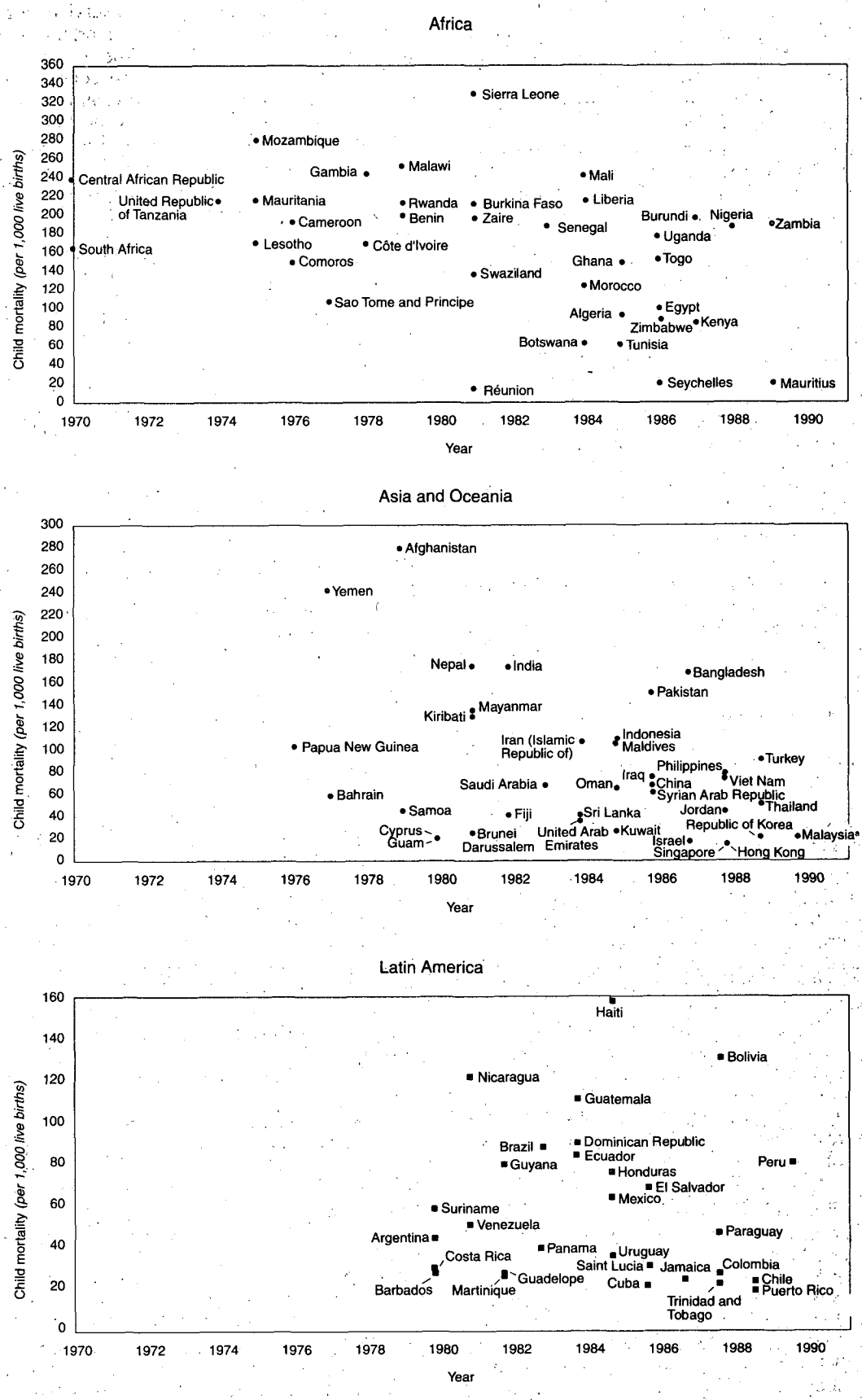
Infant and child mortality

388. As noted earlier, estimates of infant and child mortality are more readily available for the developing countries than estimates of life expectancy. Hence, a more comprehensive picture of mortality change in the developing world can be obtained from the former data. Annex tables A.7-A.9 (see end of chapter) present estimates of infant mortality rates and under-five mortality (probability of dying before age 5) for the developing countries of Africa, Asia and Oceania, and Latin America. Country-specific estimates of under-five mortality for the most recent available year by region are also depicted graphically in figure 35.

389. Figure 35 exhibits a wide dispersion not only in the level of under-five mortality but also in the dates to which the estimates refer. In Africa in particular, about one third of the countries had child mortality estimates dating back to earlier than 1980 and only about one third had estimates available for the recent period, that is, 1985 or later. In contrast, most of the countries in Asia and Oceania and all the countries in Latin America had child mortality estimates available for the 1980s. Indeed, over two thirds of countries in Asia and Oceania and over three fourths in Latin America had child mortality estimates available for the period 1985 or later. Africa is also characterized by the widest disparity in the level of under-five mortality, ranging from fewer than 20 deaths per 1,000 live births in Réunion to over 300 per 1,000 in Sierra Leone. According to the most recent estimates available, in several African countries mortality before age 5 is more than 200 per 1,000. All the countries in Asia and Oceania, except Afghanistan and Yemen, have reduced their child mortality to fewer than 180 deaths per 1,000 live births. In Latin America, excluding Bolivia, Guatemala, Haiti and Nicaragua, under-five mortality is fewer than 100 per 1,000.

390. As noted earlier, Africa has both a generally higher level and the most varied picture of levels and trends of infant and child mortality. In the late 1980s, an under-five mortality rate of fewer than 25 deaths per 1,000 live births was attained by Mauritius, Réunion and Seychelles, the small island countries in sub-Saharan Africa characterized by very low overall mortality. Indeed, IMR in Réunion was 7 per 1,000 in 1988-1989, the lowest in Africa. In contrast, Western Africa had the highest child mortality in Africa. Sierra Leone, in particular, recorded the highest child mortality in the world, with 364 children dying before age 5 out

Figure 35. Child mortality in developing countries or areas, most recent available data



Sources: Annex tables A.7-A.9.
[a]Data for Peninsular Malaysia only.

of every 1,000 born alive in 1971 and 334 out of every 1,000 in 1981. Similarly, in Malawi and Mozambique in Eastern Africa and in the Gambia and Mali in Western Africa, estimated under-five mortality was about 250 per 1,000. However, the most recent estimates available for the Gambia, Malawi and Mozambique refer to the 1970s. Only for Mali do estimates refer to the early 1980s.

391. Only a few African countries have experienced sustained declines in child mortality. In mainland sub-Saharan Africa, Kenya and Zimbabwe in Eastern Africa and Botswana in Southern Africa have achieved the lowest mortality. According to recent DHS data, in Botswana, under-five mortality was 65 per 1,000 in 1984; in Kenya it averaged 89 during the period 1984-1989; and in Zimbabwe it was estimated at 91 in 1986.

392. The countries of Northern Africa made remarkable progress in reducing mortality in childhood. In Egypt, IMR declined from 134 to 73 per 1,000 and under-five mortality fell by more than half, from 215 to 102 per 1,000, between 1975-1977 and 1984-1988. The decline was even more impressive in Tunisia, where under-five mortality dropped from 192 to 65 per 1,000 between 1972 and 1983-1987. A significant decline in mortality was also recorded in Algeria, where IMR dropped from 146 to 78 per 1,000 and under-five mortality from 219 to 97 per 1,000 between 1969-1971 and 1985.

393. Asia and Oceania show marked variations in infant and child mortality. In Eastern Asia, the Republic of Korea saw its IMR decline from 36 to 11 per 1,000 between 1978-1979 and 1988-1989. In Hong Kong, despite the low levels of infant and under-five mortality reached in 1976 (14 and 17 per 1,000, respectively), child survivorship continued to improve so that by 1987-1989 only seven children out of every 1,000 born alive were expected to die by age 1 and only nine by age 5. In China, recent evidence suggests that infant and under-five mortality levels for earlier periods had been underestimated and that, during the 1980s, IMR remained at about 50 deaths per every 1,000 live births, being considerably higher among female children than among males.

394. In South-eastern Asia, Brunei Darussalam, Peninsular Malaysia and Singapore continued to make remarkable progress in reducing infant and child mortality. In Peninsular Malaysia, infant and under-five mortality levels of 42 and 60 per 1,000 estimated for 1969-1971 had dropped to 26 and 35 per 1,000 by 1979-1981 and reached 12 and 16 per 1,000 in 1990. In Singapore, infant and under-five mortality levels were already fairly low during the period 1969-1971 (20 and 26 per 1,000, respectively), and they reached 8 and 9 per 1,000 in 1988. Although mortality before age 5 remained fairly high in Thailand, the country also registered an important increase in child survivorship. Thus, whereas in 1969-1971, 105 out of every 1,000 children born alive were expected to die by age 5, that number had dropped to 68 in 1979-1981 and it further declined to 44 in 1989.

395. In Southern Asia, Sri Lanka, the Islamic Republic of Iran and Maldives all experienced significant reductions in child mortality. In Sri Lanka, IMR dropped from 55 to 25 per 1,000 between 1970-1972 and 1982-1987 and under-five mortality from 77 to 35 per 1,000 over the same period. In the Islamic Republic of Iran, under-five mortality fell from 182 to 99 per 1,000 between 1973-1976 and 1984; and in Maldives, IMR dropped from 150 to 66 per 1,000 and under-five mortality from 224 to 97 per 1,000 between 1973 and 1985.

396. Most of the countries of Western Asia experienced considerable improvements in child survivorship. In Cyprus, for instance, infant and under-five mortality fell by half in about seven years, from 28 and 32 per 1,000, respectively, in 1973 to 13 and 15 in 1978-1982. A considerable mortality reduction was also observed in Israel and Kuwait. In the former country, under-five mortality declined from 25 per 1,000 in 1971-1973 to 13 in 1986-1988; and in the latter, from 55 per 1,000 in 1974-1976 to 22 in 1984-1986. In Bahrain, IMR dropped from 43 per 1,000 in 1977 to 20 in 1986-1988 and remained at the same level in 1989-1990. Indirect estimates based on sample surveys indicate that under-five mortality declined continuously in the United Arab Emirates, from 86 per 1,000 in 1971 to 43 in 1975 and to 33 in 1984. In Yemen, however, mortality remained high, with under-five mortality estimated at 237 per 1,000 in 1975-1979 on the basis of the World Fertility Survey in 1979.

397. Infant and child mortality have been declining steadily in the developing countries of Oceania. Guam had the lowest mortality in the region, with an IMR of 11 per 1,000 in 1985-1987. Although most of the islands have achieved moderately low mortality, it is still high in Kiribati, where the probability of dying by age 5 was estimated at 123 per 1,000 in 1981, and in Papua New Guinea, where it was estimated to be 96 per 1,000 in 1976.

398. Since most Latin American countries have vital registration systems providing a relatively complete coverage of vital events, they both have more recent estimates of mortality in childhood and a better basis to assess trends in infant and child mortality. Mortality is generally lower in Latin America than in Africa, Asia or Oceania. Thus, under-five mortality of fewer than 25 per 1,000 has been attained by several countries in Latin America and some have experienced a remarkable mortality decline.

399. Except for the Dominican Republic and Haiti, all the Caribbean countries have attained low infant and child mortality levels. Barbados and Cuba, in particular, experienced more than a threefold decline in infant mortality in less than two decades: in Barbados, IMR fell from 41 to 13 per 1,000 between 1970 and the late 1980s; and in Cuba, it declined from 41 to 12 per 1,000 over the same period. Puerto Rico also experienced a significant decline; its IMR of 29 per 1,000 and under-five mortality of 32 per 1,000 in 1969-1971 dropped by half in 1988-1990.

400. In Central America, Costa Rica and Panama attained the lowest level of infant and child mortality but whereas in Costa Rica IMR declined sharply from 51 to 15 per 1,000 between 1972-1974 and 1989-1990, in Panama it only dropped from 32 per 1,000 in 1975-1980 to 21 in 1987-1989.

401. In South America, Chile experienced a dramatic reduction in mortality in childhood: IMR dropped by 75 per cent, from 78 to 17 per 1,000 between 1969-1971 and 1989-1990, and a similar decline was recorded with respect to under-five mortality, from 91 to 20 per 1,000. Argentina, Colombia, Uruguay and Venezuela also registered significant reductions in infant and child mortality. For instance, in Argentina, IMR fell by more than half, from 56 to 23 per 1,000 between 1968-1970 and 1989; and in Uruguay, it declined from 47 to 21 per 1,000 between 1974-1976 and 1988-1990.

402. Thus far, the discussion has focused on country-specific mortality estimates for the developing countries of Africa, Asia and Oceania, and Latin America. Focusing only on the developing countries that were expected to have a

population of 1 million or more in 1990, a recent report on the overall trends in under-five mortality (United Nations, 1992a) shows that among countries with adequate estimates for two points in time between 1960 and 1985, child mortality declined by about 3 per cent per annum. On average, child mortality declined slightly faster in Asia and Latin America than in Africa (with an estimated 2 per cent per annum). These figures would, however, be somewhat different if data for all the developing countries were available. In a few countries in sub-Saharan Africa, the data available suggest that child mortality may have remained constant or even increased, but poor data quality cannot be ruled out as the main cause of such trends. Data are so defective in some countries, both in Africa and elsewhere, that it is difficult to establish how mortality has evolved. Yet, wherever data are adequate, child mortality appears to have declined either at a constant or at an accelerating rate.

Maternal mortality

403. Maternal mortality, that is, deaths due to the complications of pregnancy, childbirth and the puerperium, is one of the leading causes of death among women of reproductive age in the developing world. The evidence available suggests that in poor countries, from one fourth to one half of all deaths of women of child-bearing age result from pregnancy and its complications (Herz and Measham, 1987). Maternal mortality is a tragedy not only for the women concerned but for their immediate families, especially if they have young children. A study in Bangladesh showed that if the mother died, the newborn child had a 95 per cent chance of dying within a year. It is estimated that, on average, for every mother who dies, two children are left motherless (Chen and others, 1974).

404. There are striking differences in the maternal mortality levels typical of developing countries and those prevalent in the developed countries. In the developed countries, pregnancy-related deaths are rare and registered maternal mortality rates are generally below 10 deaths per 100,000 live births. In contrast, in high-mortality developing countries, maternal mortality rates as high as 1,000 deaths per 100,000 live births have been reported (Mahler, 1987). This disparity is further compounded by the higher fertility levels prevailing in most developing countries.

405. For an individual woman, therefore, the risk of maternal death is influenced not only by the risk associated with pregnancy but by the number of times she becomes pregnant. In the developed countries, the average lifetime risk for a woman of dying because of pregnancy-related causes varies between one in 6,000 and one in 10,000, while in the developing countries such risk ranges from one in 20 to one in 140 (Maine, 1991).

406. Maternal mortality is also measured in terms of deaths per 100,000 women of reproductive age. In Bangladesh, Egypt, India and Indonesia, for example, more than one out of every five deaths among women of child-bearing age is related to pregnancy. In contrast, in the United States, only about one out of every 200 deaths among such women is a maternal death (Maine, 1991).

407. In terms of absolute numbers, maternal mortality accounts for a much larger share of deaths in the developing countries than in the developed countries. According to the most recent WHO estimate for around 1988, over 500,000 women die each year from causes related to pregnancy and childbirth. The vast majority of these deaths, 99.2 per cent, occur in developing countries. Although different measures of maternal mortality illustrate different facets of the overall picture, they all show that maternal deaths are far too common in the developing countries.

408. Despite these disturbing statistics, maternal mortality was until recently a neglected tragedy. The problem of maternal mortality received global attention only after the Safe Motherhood Initiative was officially launched at Nairobi, Kenya, in 1987, at the first international conference to focus specifically on the health of women. That conference was followed by one on safe motherhood, held at Lahore, Pakistan, in 1990. The problem was further highlighted in the regional plan of action for the reduction of maternal mortality in the Americas adopted by the Pan American Health Organization (PAHO) and WHO. Although the main causes of maternal mortality are well known and the knowledge and appropriate technology to reduce it have long been available, maternal mortality still represents a major social and health problem in Latin America (PAHO/WHO, 1990), as well as in other areas characterized by higher overall mortality.

409. Table 42 presents the trends in maternal mortality rates for the developed countries from 1970 to 1991. Although maternal mortality was already low in the 1970s, it continued to decline: in the majority of the developed countries, rates registered recently show fewer than 10 deaths per 100,000 live births. In a few small countries, maternal deaths are almost non-existent. For example, Iceland reported only one maternal death in 1987 and in 1990, and none over most of the past 20 years. Similarly, Luxembourg had only one death attributed to pregnancy-related causes during the 1980s and one in 1990. In contrast, Romania and the former USSR had relatively high maternal mortality among the developed countries. If both are excluded, the weighted average of maternal mortality rates for the developed countries in the late 1980s would have been fewer than 10 deaths per 100,000 live births. Including Romania and the former USSR, the weighted average increases to 21 maternal deaths per 100,000 live births.

410. Reaching and maintaining low levels of maternal mortality have been significant achievements in public health in the developed countries. The advancement in obstetric and prenatal care, the introduction of antibiotics and blood transfusions, the increasing proportion of deliveries taking place in hospitals, and the better general health and nutritional status of pregnant women, along with the introduction of effective means of contraception and the provision of safe and legal abortion, have all been important factors in the reduction of maternal mortality in those countries.

411. The provision of abortion under modern medical conditions has reduced mortality due to abortion and its complications to an extremely low level in the developed countries that have legalized the procedure. The number of abortion deaths in the United States, for example, declined by 97 per cent during the period 1970-1981 and the abortion mortality rate dropped from 72 deaths per 100,000 abortions during 1963-1968 to 0.5 death per 100,000 abortions in 1980. Data from Sweden exhibited a similar decline, from 250 deaths per 100,000 abortions during 1946-1948 to 2.4 deaths per 100,000 abortions in 1964-1979 (Winikoff and Sullivan, 1987).

412. In contrast, Romanian data show a dramatic increase in abortion-related deaths as a result of the restrictions placed in November 1966 on the previously liberal abortion law. Thus, the maternal mortality rate reached up to 169 deaths per 100,000 live births in 1989—the highest recorded rate in Europe. An estimated 87 per cent of the maternal

TABLE 42. MATERNAL MORTALITY RATES, DEVELOPED COUNTRIES, 1970-1991
(Per 100,000 live births)

Region and country	Maternal mortality rate					
	1970-1974	1975-1979	1980-1984	1985-1989	1990	1991
Asia						
Eastern Asia						
Japan	42.1	24.7	17.8	12.4	8.6	9.0
Europe						
Eastern Europe						
Bulgaria	34.6	25.5	20.1	17.0	14.3	8.3
Czechoslovakia	17.1	12.8	10.2	8.0	7.6	..
Hungary	39.5	20.9	19.2	17.4	20.7	6.3
Poland	21.0	14.6	14.2	12.4	12.8	12.8
Romania	126.3	132.0	152.0	152.7	83.0	66.5
Northern Europe						
Denmark	5.5	6.2	5.6	5.3	1.6	3.1
Finland	9.9	7.7	3.1	5.8	6.1	3.1
Iceland	23.0	0.0	0.0	4.7	21.0	..
Ireland	26.7	13.0	7.2	4.1	3.8	..
Norway	9.5	9.5	3.9	4.7	3.3	..
Sweden	7.2	5.1	4.3	5.4	..	..
United Kingdom	15.7	12.0	9.0	6.9	7.6	6.9
Southern Europe						
Greece	28.2	18.6	13.1	5.9	1.0	..
Italy	44.8	19.4	11.3	6.1	..	..
Malta	0.0	17.5	17.9	7.4	0.0	18.9
Portugal	57.9	40.0	18.7	9.5	10.3	12.0
Spain	29.6	15.8	8.9	4.6	..	..
Yugoslavia[a]	41.6	20.8	21.0	7.6	..	..
Western Europe						
Austria	25.0	17.1	10.9	6.4	7.4	..
Belgium	17.1	9.9	7.5	3.4[b]	..	..
France	24.4	16.1	14.3	10.1	..	..
Germany[c]	43.1	28.7	16.1	8.5	..	..
Luxembourg	48.4	49.8	0.0	4.6	20.3	0.0
Netherlands	12.3	9.1	7.4	7.0	7.6	..
Switzerland	20.7	10.8	6.7	5.9	6.0	1.2
Northern America						
Canada	15.0	6.6	4.8	4.0	2.5	..
United States of America	17.9	11.1	8.3	7.6	..	..
Oceania						
Australia	15.9	8.4	8.9	3.4[d]	..	..
New Zealand	21.0	14.9	11.8	14.5	..	..
USSR (former)	..	72.6[e]	56.4[f]	45.3	40.7	..
Weighted average, excluding Romania and former USSR	27.7	16.5	11.7	8.4	8.5	..

Sources: World Health Organization, *World Health Statistics Annual, 1986-1992* (Geneva, 1986-1989 and 1991-1993), table 11; tables 6 and 9; table 10, table 11 and table D-1, respectively. For Germany, *Demographic Yearbook, 1991* (United Nations publication, Sales No. E.92.XIII.1); and *World Population Monitoring, 1991: With Special Emphasis on Age Structure*, Population Studies, No. 126 (United Nations publication, Sales No. E/F.92.XIII.2).

Note: Because of the small number of maternal deaths, the annual rates, particularly in the smaller countries, are subject to large random fluctuations. The high rates were based on only one death for Iceland and Luxembourg in 1990 and for Malta in 1991.

[a]Data for the period prior to 27 April 1992 refer to the former Socialist Federal Republic of Yugoslavia in terms of its boundaries as they existed prior to that date.

[b]Data refer to 1986-1987.

[c]Data for Germany prior to 3 October 1990 are averages of the separate life expectancies of the former Federal Republic of Germany and the former German Democratic Republic, weighted by live births.

[d]Data refer to 1985-1988.

[e]Data refer to 1975.

[f]Data refer to 1980.

deaths recorded in Romania were caused by illegal and unsafe abortions. With the change of government in December 1989, all prohibitions on abortion and on the importation or sale of contraceptives were revoked. Such a change has already resulted in a dramatic fall in maternal mortality to 66 deaths per 100,000 live births in 1991—fewer than half those recorded in 1989.

413. Table 43 presents the trends in maternal mortality in selected developing countries having vital registration that is considered to be complete. Note that most of these countries have lower overall mortality because they are generally more advanced than developing countries with no data. Therefore, the maternal mortality rates presented here should not be considered representative of all the less devel-

TABLE 43. MATERNAL MORTALITY RATES, SELECTED DEVELOPING COUNTRIES, 1970-1991
(Per 100,000 live births)

Region and country or area	Maternal mortality rate					
	1970-1974	1975-1979	1980-1984	1985-1989	1990	1991
Africa						
Mauritius	147.8	116.6	87.1	76.4	68.8	70.0
Asia						
Hong Kong	16.4	10.1	6.0	4.4	..	..
Israel	..	12.6	3.1	4.2	..	..
Kuwait	..	12.9	11.3	3.7[a]	..	..
Singapore	25.6	17.4	9.6	6.7	2.0	..
Latin America						
Argentina	..	84.6	69.0	52.0	..	..
Barbados	118.8	67.4	22.3	10.0	..	..
Chile	145.1	103.1	53.5	45.2	..	..
Costa Rica	81.6	51.5	27.4	27.9	..	..
Cuba	60.7	53.0	51.6	44.6	41.8	..
Panama	110.1	82.9	66.0	56.0	..	..
Puerto Rico	26.0	13.7	11.4	16.4	19.5	..
Uruguay	65.5	59.4	44.8	33.5	15.9	..

Sources: World Health Organization, *World Health Statistics Annual, 1986-1992* (Geneva, 1986-1989 and 1991-1993), table 11; tables 6 and 9; table 10, table 11, table 9, table 10 and table D-1, respectively.
[a]1985-1987.

oped regions. According to the data available, there were impressive declines in maternal mortality in the developing countries between 1970 and the late 1980s.

414. The majority of the developing countries lack reliable data on maternal mortality. Until fairly recently, hospital-based studies were the main sources of maternal mortality data. Such information is highly inadequate in many developing countries, since hospital-delivery cases do not normally represent the general population. Alternative data-gathering mechanisms, such as population-based studies through sample surveys and networking, have been attempted in some developing countries. This new development has not only provided maternal mortality rates for national and subnational populations but has increased the knowledge of the causes of maternal deaths and has suggested efficient ways to reduce maternal mortality (Kwast, Rochat and Kidane-Mariam, 1986; Khan, Jahan and Begum, 1986; Bhatia, 1988; Boerma and Mati, 1989). Furthermore, the recent development of an indirect estimation technique, known as "the sisterhood method", has added new dimension to the estimation of maternal mortality (Graham, Brass and Snow, 1989). The information required for the application of that technique has been gathered by major survey programmes, such as DHS (Rutenberg and others, 1990).

415. WHO has made a systematic effort to gather information on maternal mortality from different sources and, on the basis of that information, has produced estimates of maternal mortality rates in the early and late 1980s for the more developed and less developed regions (table 44). According to those WHO estimates, the maternal mortality rate in the developed countries declined from 30 deaths per 100,000 live births around 1983 to 26 around 1988. In contrast, in the developing countries, the maternal mortality rate was estimated to be 420 deaths per 100,000 live births around 1988, about 5 per cent lower than it was five years earlier. Within the developing world, there was a sizeable regional variation in the prevalence of maternal deaths. Pregnancy and childbirth were somewhat safer for women in most of Asia and parts of Latin America. The risk of maternal death, however, remained high in most parts of sub-Saharan Africa (WHO, 1991b).

TABLE 44. ESTIMATES OF MATERNAL MORTALITY RATES, LESS DEVELOPED REGIONS, AROUND 1983 AND 1988

Major area and region	Maternal deaths			
	(thousands)		(per 100,000 live births)	
	1983	1988	1983	1988
World	500	509	390	370
More developed regions	6	4	30	26
Less developed regions	494	505	450	420
Africa	150	169	640	630
Eastern Africa	46	60	660	680
Middle Africa	18	21	690	710
Northern Africa	24	18	500	360
Southern Africa	8	4	570	270
Western Africa	54	66	700	760
Asia	308	310	420	380
Eastern Asia	12	30	55	120
South-eastern Asia	52	42	420	340
Southern Asia	230	224	650	570
Western Asia	14	12	340	280
Latin America	34	25	270	200
Caribbean	2	2	220	260
Central America	9	6	240	160
South America	23	17	290	220

Source: World Health Organization, *Maternal Mortality Ratios and Rates: A Tabulation of Available Information, 3rd ed.* (Geneva, 1991).

416. The major causes of maternal death in the developing countries are the same as they were in the developed countries 50 years ago, namely, haemorrhage, infection, toxaemia and obstructed labour. That is, the main causes of maternal death have changed very little over time. Several studies have shown that about three fourths of maternal deaths in the developing countries are direct obstetric deaths (Rosenfield and Maine, 1985; Royston and Armstrong, 1989).

417. Factors that contribute to maintain a high maternal mortality in the developing countries include the relatively large number of pregnancies among women at the extremes of the child-bearing range, maternal depletion through pregnancies that are too closely spaced and the high prevalence of high-parity births. The risk of death related to pregnancy is further exacerbated if the women are poor, malnourished, uneducated and beyond the reach of adequate health care.

418. Maternal mortality resulting from complications of poorly performed abortion constitutes a significant percentage of total maternal deaths. Many of the women resorting to abortion lack adequate family-planning services as well as access to legal and safe abortion options. They often seek clandestine abortion, which is usually crudely performed and risky. A study in Ethiopia showed that about half of the pregnancies were unwanted and over half of the maternal deaths occurred among women that had unwanted pregnancies. About one third of all maternal deaths and half of the direct obstetric deaths resulted from clandestine abortion (Herz and Measham, 1987). In Bolivia, 30 per cent of maternal deaths occurred to single women and abortion was a leading cause of death among all women (Rutenberg and others, 1990).

419. The goal of reducing maternal mortality by at least 50 per cent by the year 2000 adopted by the World Summit for Children, 1990, poses a monumental challenge (UNICEF, 1992). Given the limited resources of developing countries, efforts need to be concentrated on the identification of the most practical and cost-effective means of reducing maternal mortality (Kwast, Rochat and Kidane-Mariam, 1986). In many countries, it has been established that increased provision and improvement of existing maternity services at all levels of the health system are the most effective means of reducing maternal mortality (see box 17).

420. Family-planning programmes together with good primary health care represent important interventions to achieve reductions in maternal mortality in the developing countries. The efficacy of such programmes in reducing maternal mortality would be greatly enhanced by the inclusion of safe and readily accessible menstrual regulation and abortion services. Family planning is already preventing a large number of maternal deaths, and it is estimated that more than one fourth of maternal deaths would be prevented if all women that want no more children were to use effective methods of contraception (Maine and others, 1987). Promotion of a higher age at marriage would also contribute to a reduction of maternal mortality.

421. As a result of increasing research on maternal mortality, a framework to analyse its determinants has recently been developed by McCarthy and Maine (1992). According to this framework, all determinants of maternal mortality operate through a sequence of three intermediate outcomes, namely, pregnancy, complication and death/disability. The authors conclude that family planning programmes, safe abortion services and improvements in labour and delivery services are the critical interventions necessary to reduce maternal mortality in the developing world.

B. THE DEMOGRAPHIC, PUBLIC HEALTH AND SOCIAL ASPECTS OF HIV/AIDS*

422. AIDS was first recognized among homosexual males in the United States of America in 1981. By 1984, HIV, the aetiological agent, had been identified. By the mid-1980s, it had become clear that the virus had spread unnoticed throughout the world.

423. Widespread transmission of the virus began in the late 1970s in sub-Saharan Africa, Northern America and the Caribbean. In Western Europe and Oceania, the same trend began a few years later. The epidemic was also establishing itself more firmly in Eastern Europe and Latin America. By the mid-1980s. HIV had been introduced into parts of South-eastern and Southern Asia. Currently, transmission continues in all continents.

424. At first located primarily in urban areas, the HIV pandemic has now spread deeply into rural areas in some countries. In addition, the gap in transmission rates between sexes has narrowed, in both developed and developing coun-

* Prepared by the World Health Organization, Geneva.

BOX 17. EFFECTIVENESS OF MATERNITY SERVICES IN REDUCING MATERNAL MORTALITY

In Cuba, an increase in medical care at the time of delivery by adequately trained personnel under hygienic conditions has been identified as a major factor leading to a decline in maternal mortality from 117 maternal deaths per 100,000 live births in 1962 to 31.3 in 1984, a reduction of 73 per cent in 22 years. In Cuba, the proportion of women delivering their children in health institutions increased from 63.2 per cent in 1963 to 98.7 in 1984. In addition, efforts were made to provide prenatal care to all pregnant women. Today, access to such care is practically universal.[a]

In Portugal, a health policy directed to providing universal primary health care to the entire population has led to almost a 50 per cent reduction in maternal mortality, from 30.8 maternal deaths per 100,000 live births in 1979 to 16.1 in 1983. Prenatal care covered from 65 to 70 per cent of pregnant women in rural areas and about 90 per cent in urban areas. In 1983, 80 per cent of all births occurred in hospitals.[b]

In Ethiopia, a community-based survey showed that the maternal mortality rate for women that had received prenatal care was 250 deaths per 100,000 live births as opposed to 1,060 for those that had not received such care.[c] In Egypt, Saleh[d] noted that although medical care was easily accessible throughout the governorate of Menoufia, in terms of both the number of facilities and their location, most women in the villages of that governorate delivered their children at home with the help of *dayas* (traditional birth attendants). Saleh concluded that measures to change those traditions were crucial to promote the proper utilization of prenatal care services.

The high maternal mortality observed in Bolivia (332 deaths per 100,000 live births) is in part accounted for by the low percentage of women (47 per cent) receiving prenatal care and the even lower percentage (42 per cent) delivering their children in health institutions. Measures to increase the use of prenatal care have therefore been suggested as the first step to improve the detection and referral of high-risk pregnant women.[e]

[a]Ubaldo Farnot Cardoso, "Maternal mortality in Cuba", in *World Health Organization Interregional Meeting on the Prevention of Maternal Mortality, Geneva, 11-15 November* (Geneva, World Health Organization, 1985).

[b]Maria da Purificaçao Araújo, "Maternal mortality in Portugal", in *World Health Organization Interregional Meeting on the Prevention of Maternal Mortality, Geneva, 11-15 November* (Geneva, World Health Organization, 1985).

[c]Barbara E. Kwast and others, "Epidemiology of maternal mortality in Addis Ababa: a community-based study", *Ethiopian Medical Journal* (Addis Ababa), vol. 23, No. 7, pp. 7-15.

[d]Saneya Saleh, "Maternal mortality in Menoufia, Egypt, 1981-1983", in *High Risk Mothers and Newborns*, Abdel R. Omran, J. Martin and B. Hamza, eds. (Switzerland, Ott Publishers, 1987).

[e]Naomi Rutenberg and others, "Direct and indirect estimates of maternal mortality with data on the survivorship of sisters: results from the Bolivia Demographic and Health Survey", paper presented at the annual meeting of the Population Association of America, Toronto, Ontario, 3-5 May 1990.

tries, as heterosexual transmission has become more common. Women's rising infection rates are accompanied by a corresponding rise in the number of children born to them infected with HIV. The emergence of a projected total of from 12 to 18 million AIDS cases throughout the world by the year 2000 could lead to demographic and socio-economic changes.

425. The modes of HIV transmission and the natural history of HIV infection are described below. Estimates of the current levels of infection, illness and death are presented. The potential for demographic impact is discussed; and an overview is provided of HIV prevention strategies, drug and vaccine developments.

1. *Global situation*

426. As of 1 January 1993, 173 countries had reported 611,589 cases of AIDS to WHO. Because of underdiagnosis, underreporting and reporting delays, WHO estimates that this figure represents only 25 per cent of all AIDS cases that have occurred and that the actual number of cases is higher than 2.5 million (figure 36). Globally, more than 1 million adults have died from AIDS.

427. According to data of the WHO Global Programme on AIDS, as of January 1993 between 11 million and 12 million adults had been infected with HIV, the causal agent of AIDS, since the epidemic began, geographically[3] distributed as shown below:

Place	*Total*
Africa	
Northern Africa/Middle East	75,000+
Sub-Saharan Africa	7,500,000+
Asia	
Eastern Asia/Pacific	25,000+
South/South-eastern Asia	1,500,000+
Australasia	25,000+
Europe	
Eastern Europe and Central Asia	50,000+
Western Europe	500,000+
Latin America and the Caribbean	1,000,000+
Northern America	1,000,000+

The majority of the cases in the world have been infected through heterosexual transmission and the male-to-female ratio of current infections is approximately 1.2:1. By 2000, the ratio is expected to approach 1:1. In addition, it has been estimated that over 500,000 children have been infected with HIV from their infected mothers. These children rapidly develop AIDS and die, usually before age 5.

2. *The epidemiology of HIV and AIDS*

428. Two features, the modes of transmission of HIV and the latency period of the disease, are central to understanding the pandemic.

Modes of transmission

429. HIV is transmitted exclusively through body fluids. Three means of transmitting the virus have been identified by laboratory and epidemiological investigation.

430. Sexual transmission accounts for approximately 75 per cent of HIV infections worldwide and includes both heterosexual and homosexual intercourse, both vaginal and anal intercourse.

431. Transmission through blood and blood products includes infections resulting from the transfusion of infected blood and from injections of infected blood, either nosocomially or through injecting drug use; it also includes infections resulting from the use of infected blood products, such as factor VIII. In many parts of the world, more rational use of blood and universal screening for HIV are making the blood supply safer.

432. Transmission from mother to child includes both perinatal and post-partum infection. Approximately one third of children born to HIV-infected mothers will be infected with HIV. Although the majority of mother-to-child transmission occurs during pregnancy and delivery, recent data confirm that HIV is transmitted from an infected mother to an uninfected child through breast milk (Van de Perre and others, 1991; Dunn and others, 1992).

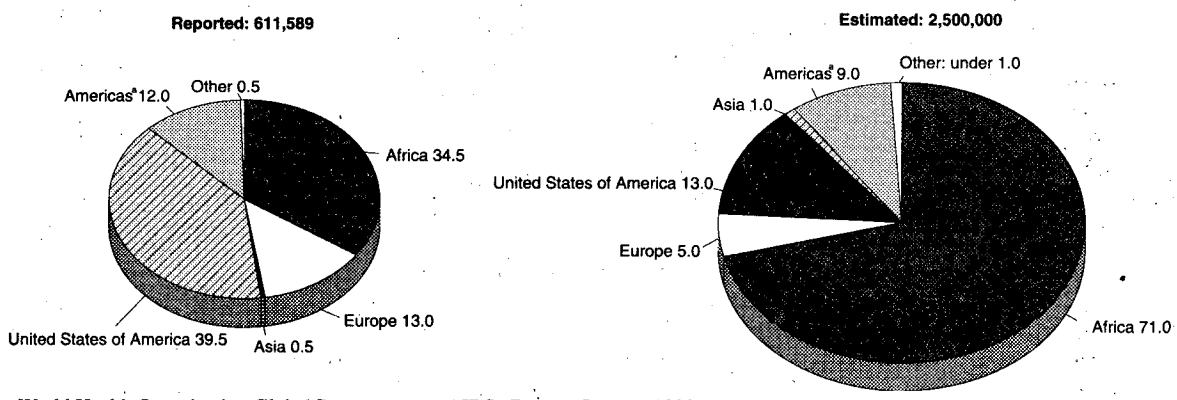
433. There is no evidence that any ethnic group has either greater susceptibility or greater resistance to the virus. HIV is not transmitted by casual contact, by kissing or by mosquito bites.

Progression from infection to onset of illness

434. The latency period—the time between becoming infected with HIV and the onset of clinical symptoms—is unusually long and varies widely from person to person. Approximately 50 per cent of those infected become ill within from 8 to 10 years after infection. Current evidence

Figure 36. Cumulative AIDS cases in men, women and children, late 1992

(Percentage)



Source: World Health Organization Global Programme on AIDS, Geneva, January 1993.
[a]Not including the United States of America.

suggests that almost all HIV-infected people will ultimately die of AIDS. Once a person develops AIDS, the average survival time appears to be between one and three years. In some developing countries, survival time may be less than one year.

435. Several factors may influence the progression from HIV infection to onset of severe clinical illness. Different strains of HIV may be more pathogenic. Genetic factors, such as the presence of human leukocyte antigen (HLA) phenotypes, may speed the progression to disease. Other factors, including nutritional status and other concurrent infections, may also promote the progress to disease. There is clear evidence that young children and older adults progress to disease faster than young adults. Research into the factors that lead to immunodepression continues and offers promise in helping to slow the onset of illness.

436. In the light of recent reports of the presence of severe immunodepression in the absence of either HIV-1 or HIV-2, concern has been raised that another, undetected, virus may be spreading. Between June and September 1992, an extensive worldwide investigation was conducted by WHO and the Centers for Disease Control (United States of America). No evidence of a new HIV-like virus was discovered.

Tuberculosis and HIV infection

437. High rates (20-67 per cent) of HIV infection in patients with pulmonary and extrapulmonary tuberculosis have been reported from various regions in Africa (De Cock and others, 1992). Furthermore, an alarming increase in tuberculosis cases has been reported along with the emergence of AIDS cases in many countries. Tuberculosis has become one of the major infections associated with HIV infection in Africa and is soon expected to increase in other areas of the world.

3. *Levels and distribution of HIV/AIDS*

438. HIV infection is not uniformly distributed geographically. Some areas have experienced widespread transmission for more than 15 years, while the virus has only recently been introduced into other areas. Although all adults are potentially at risk of infection, the epidemic has affected some groups more than others.

Northern America, Europe and Australia

439. First identified in Northern America, in the early 1980s the epidemic began to spread in Northern America, Western Europe and Australia. Early in the epidemic, most infections occurred in homosexual men, but the incidence in this group levelled off around 1985 (United States of America, 1987). The incidence of HIV among injecting drug users has been increasing steadily, with a consequent increasing spread in the heterosexual population and an accompanying increase in perinatal transmission.

440. In Europe, Canada, Australia and New Zealand, the incidence of HIV has been much lower. The majority of HIV infections occur among homosexual men and injecting drug users, but heterosexual transmission is increasing.

441. Although the epidemiology of HIV infection in Eastern Europe and the former USSR is poorly documented, homosexual transmission appears to be the predominant mode of spread in some countries while injecting drug use is the main risk factor in others. In Poland, a national HIV seroprevalence of 15 per cent was reported among injecting drug users. In the late 1980s, in Romania and Elista (former USSR), localized outbreaks occurred through unsterile injections and unscreened blood. In Romania, over 90 per cent of the cases have occurred in children, mainly abandoned infants and children living in public institutions (Hersh and others, 1991).

Sub-Saharan Africa

442. As of 1 January 1993, over 200,000 cases of AIDS had been reported from Africa, but WHO estimates that as of 1992 close to 1,500,000 adults in the continent had developed AIDS (WHO, 1992a). More than 7 million people in Africa are thought to have been infected with HIV-1. The epidemic is relentlessly expanding, both geographically and within specific populations. This picture is further complicated by the presence of HIV-2 infection, which occurs mainly in Western Africa.

443. The impact of the epidemic on the continent is devastating. Even in areas where the epidemic has only recently become visible, such as Abidjan, Côte d'Ivoire, AIDS has already become the leading cause of death in sexually active males and the second leading cause of death in sexually active women, after deaths related to pregnancy and abortion (De Cock and others, 1990). Similar observations have been made at Kinshasa, Zaire, where AIDS was the leading cause of adult medical hospital admission and in-hospital mortality (Hassig and others, 1990).

444. Apart from the suffering of AIDS patients themselves, the impact of HIV infection on their families and on society is considerable. In rural areas with high HIV seroprevalence, such as the Rakai district in Uganda, entire populations have been severely disrupted in their ability to sustain themselves. Children of parents dying of AIDS become orphaned. While the extended family structure has been able to provide for most of the orphans' needs where AIDS is relatively rare, the AIDS epidemic is threatening this structure in high-prevalence areas, and thus increasing numbers of orphans are left without support (Barnett and Blaikie, 1991).

Asia

445. The spread of HIV in South-eastern Asia became detectable in the second half of the 1980s, at first among injecting drug users. In several cities in Thailand and at Yangon in Myanmar, HIV seroprevalence among injecting drug users rose from zero to between 30 and 53 per cent within 18 months (WHO, 1992h; Ford and Koetsawang, 1991).

446. However, heterosexual transmission has been rapidly increasing and currently appears to be the predominant mode of HIV transmission in Asia. In Thailand in 1990, HIV seroprevalence rates of between 2 and 45 per cent in brothel-based female sex workers, between 0.4 and 5.4 per cent in non-brothel prostitutes and between 1 and 18 per cent among clinic patients with sexually transmitted diseases were reported, with the highest rate at Chiang Mai, intermediate rates at Bangkok and lower rates elsewhere (Ford and Koetsawant, 1991; Weniger and others, 1991; Phanuphak, 1992). As of mid-1992, the total number of HIV seropositive individuals in Thailand was estimated to be about 400,000. In the year 2000, the cumulative of HIV total infections in Thailand may reach from 2 million to 4 million people (WHO, 1992h).

447. In India, HIV is spreading rapidly and the predominant mode of transmission is also heterosexual. Between 1988 and the end of 1992, up to 1 million persons are estimated to have become infected (WHO, 1992a). At Bombay, approximately 18 per cent of the female sex workers have become infected, and high-risk populations at Madras and Pune also appear to have significant levels of HIV infection

(WHO, 1992b). In addition, transmission through injecting drug use has been reported in north-eastern India, where, at Manipur, HIV prevalence in this group may reach 50 per cent.

448. As of January 1993, only 2,582 cases of AIDS had been reported to WHO from South-eastern and Southern Asia. Although the impact of HIV infection is not yet obvious, it is anticipated that in the years to come, countries in this region will be confronted with an AIDS epidemic equal to or more severe than that in Africa. The extent of the epidemic in Asia will largely depend upon the promptness and effectiveness of the response of Governments and communities.

449. Fewer than 700 AIDS cases have been reported to WHO from Eastern Asia and the Pacific, mostly haemophilic patients. This estimate is thought to be a reasonably accurate reflection of the current status of the AIDS epidemic, but the number of HIV-infected persons in those countries is probably much higher (WHO, 1992h). A significant sex industry in several of the countries may make them particularly vulnerable; and in Yunnan Province of China, an outbreak among injecting drug users has been reported (WHO, 1992h).

Latin America

450. Latin America has experienced the simultaneous occurrence of different epidemiological patterns, with heterosexual and bisexual transmission becoming the driving forces of the AIDS epidemic. The spread of HIV began around 1980, among homosexual and bisexual men and injecting drug users in large cities. Since the mid-1980s, heterosexual transmission, at first mainly between bisexual men and their female partners, has become more important (Quinn, Narrain and Zacarias, 1990).

451. The AIDS epidemic has had a differing impact in different countries. The Caribbean in general and urban areas of Brazil (São Paolo and Rio de Janeiro) are the worst affected. WHO currently estimates that there are about 1 million HIV-infected persons in Latin America, although the lack of surveillance data makes the estimation process difficult.

Northern Africa and Western Asia

452. As of January 1993, Northern Africa and Western Asia reported only 1,539 cases of AIDS, with 915 cases reported by Djibouti and the Sudan. Little information is available concerning the extent of high-risk behaviour for HIV, except that there appear to be substantial numbers of cases of sexually transmitted diseases and trade in injecting drugs also appears to be substantial in some parts of these regions.

4. *Demographic impact*

453. The current and future demographic impact of the HIV pandemic depends not only upon the level and distribution of HIV infections but upon the demographic, economic and cultural milieux within which the epidemic occurs.

454. Although the types of behaviour that promote HIV transmission are found in every country, they do not take place with the same frequency and are not uniformly distributed. Some areas will experience higher levels of HIV infection than others. Even if similar levels are reached, variation in the populations affected will influence the impact. For example, an epidemic among homosexual males is likely to have a smaller demographic impact than would an epidemic among the heterosexual population.

455. Of the three fundamental determinants of population size—births, deaths and migration—the most obvious effect of the epidemic will be on the death rate. Current evidence suggests that it is reasonable to assume that infection with HIV is ultimately 100 per cent fatal. Most die within 6-18 months after developing AIDS. Currently available drugs appear to improve the quality of life but may not substantially prolong it; furthermore, they are unavailable to the majority of HIV-infected people in the developing countries because of their relatively high cost.

456. Unlike most other diseases, the majority of deaths due to AIDS occur during the most productive years of life. For example, in Thailand, 78 per cent of the reported AIDS cases are persons between the ages of 20 and 49. In some cities in the United States and sub-Saharan Africa, AIDS is the leading cause of death among adults aged 15-49 years.

457. Very high levels of AIDS in the "general" population may be sufficient to jeopardize previous gains in child survival rates. For example, it is estimated that at least 5 million women in Asia and the Pacific will have been infected by the year 2000, leading to a conservative estimate of 2 million extra deaths among children under age 5.

458. Fewer women surviving their full reproductive period of life will most likely cause only a small decrease in the number of births. However, an additional possible influence of HIV upon birth rates may be a change in fertility. The influence of HIV upon fertility might result from either biological changes or from psychosocial pressures that lead parents to adjust in response to increased child mortality. It is likely that the biological influences will remain similar across culture, ethnic groups and geography. The psychosocial influences are more likely to be determined by local customs, perceptions and practices.

459. The excess mortality from adult and child HIV infection has raised concerns that AIDS may be so devastating that positive population growth rates may be reversed and entire populations wiped out. In a workshop organized by the Population Division of the then Department of Economic and Social Development of the United Nations Secretariat and the WHO Global Programme on AIDS in December 1989, six mathematical models were used to examine the demographic consequences of the AIDS epidemic (United Nations/WHO, 1991). In a population with a 3 per cent growth rate, a negative growth rate was achieved only when HIV prevalence in the population exceeded 40 per cent (United Nations/WHO, 1991). It is theoretically possible that a combination of the low growth rates exhibited in some of these countries, in conjunction with the high HIV levels in the "general" population, might be sufficient to cause a reversal. Although this may happen to some small communities, nowhere at country level has HIV prevalence reached the level that would reverse growth rates over the next 10 years (see box 18).

460. The influence of the HIV epidemic upon rural-urban migration is likely to be minor. Several scenarios relating to the epidemic can be envisaged. In one scenario, urban areas, where HIV is usually identified first, might be seen as riskier and the rate of migration to cities may slow. This outcome is unlikely, given the economic motives for migration and the individual's perception of personal risk. In another scenario, migration to cities might increase if effective treatment and care remains located in the urban centres. People with AIDS in the rural areas may begin migrating into the city in search of care. A substantial proportion of those patients may then return to rural areas when terminally ill. The impact is likely to be small. This scenario may change rapidly, however,

BOX 18. AIDS: THE CASE OF BOTSWANA

AIDS is a major concern in Botswana, as it is in most of sub-Saharan Africa. The first AIDS case in the country was reported in 1985; and by January 1991, a total of 180 cases of full-blown AIDS and 57 deaths had been reported in Botswana. However, these figures understate the real extent of AIDS infection. Although some 1,900 HIV carriers had been identified by January 1991, the Ministry of Health estimated that between 20,000 and 47,000 people were infected. The number of people recorded as being infected with HIV has been doubling every 12-15 months. Approximately 25 per cent of reported cases are children under age 5; slightly more women than men constitute the adult cases.

In 1986, in an effort to address the growing problem of AIDS, the Government of Botswana established the National AIDS Control Programme, which seeks to curb the spread of AIDS through both medical and educational channels. The goal is to minimize further infections. Screening of blood, which was begun in 1986, continues, with laboratory capacity to be enhanced during 1991-1997, the period of National Development Plan 7. The Medium-term Plan for the Prevention and Control of AIDS was outlined in 1987 and is to be updated regularly. There are plans for anonymous surveys to be carried out to determine the severity and trends of HIV infection in selected population groups. There will also be an integrated programme to control all sexually transmitted diseases because such diseases (for example, syphilis) increase the chances of the spread of HIV. Indeed, it is believed that the presence of a large number of people infected with other sexually transmitted diseases contributes to the current HIV epidemic. Health workers at all levels will receive specialized training to enable them to educate the public, and to identify, counsel and treat victims. Worker educators in AIDS prevention training programmes and traditional birth attendants will also be trained to provide AIDS information. Further support will be given to incorporate AIDS issues into information, education and communication (IEC) projects for rural youth and women, and into IEC activities in the workplace. AIDS education will also form an integral part of the revised school health curriculum in Botswana.

Besides encouraging intraregional cooperation in the exchange of data, training and research, the Government of Botswana will ensure that other organizations, especially schools and non-governmental organizations, shall be actively involved in AIDS prevention.

Sources: Botswana, Ministry of Finance and Development Planning, *National Development Plan, 1991-1997* (Gaborone, 1991); and United Nations Population Fund, *AIDS Update, 1991* (New York).

depending upon the types of therapies that become available and upon policies concerning the decentralization of health-service delivery.

461. Not only will the pandemic contribute to the ageing of the population in many countries, it will change the dependency ratio and require increased social services, both to provide care for the ill and to mitigate the impact on surviving family members.

5. *Prevention of HIV infection*

462. Major strategies for preventing HIV infection include promoting safer sexual behaviour, effective management of sexually transmitted diseases and safer and appropriate use of blood transfusion.

463. As the overwhelming majority of people with HIV acquire their infection sexually, only effective prevention of sexual transmission can have a significant impact on the spread of HIV. Preventing heterosexual transmission of HIV is also the major strategy to prevent mother-to-child transmission.

464. Recent experience has shown that large-scale condom use is possible even in areas where condoms have not been popular as a family planning method. Experience at Kinshasa with a social marketing programme of condoms has indicated that it is possible to increase dramatically condom use for the prevention of AIDS, as long as their cost is affordable (Lamptey and Goodridge, 1991).

465. Early diagnosis, treatment and primary prevention of sexually transmitted diseases have been advocated as an AIDS prevention strategy (WHO, 1991a). As control of sexually transmitted diseases relies heavily upon services for their management and prevention, the general performance of the health system may largely determine the capability of a country to control them. Programmes specifically focused on training health professionals to improve their performance together with increasing acceptability and access to health services are thought to improve the health-service performance.

466. In addition, effective treatment of sexually transmitted diseases relies heavily upon drug regimens. In many countries, the cost of those drugs reduces their availability (Over and Piot, 1992).

467. Media campaigns, peer group education and counselling programmes have been implemented to improve people's awareness, the knowledge of HIV and AIDS, and skills to prevent infection. These same activities spread the message of partner reduction and condom use. Increasingly, local and national authorities are approving, supporting and funding those activities—once considered offensive because of the explicitness of their messages and now considered necessary to halt the spread of the virus.

468. In most countries, a concerted effort has been made to ensure a safe blood-supply for transfusion. Programmes encouraging the rational use of transfusion are decreasing both the chance of infection and decreasing the amount of blood required. Self-deferral programmes for donors with high-risk behaviour have decreased the prevalence of donated infected blood. Screening of donated blood is also essential to prevent transfusion of infected blood.

469. Due to rational use of blood, systematic HIV screening of blood donors and deferral of donors at high risk for HIV infection, the number of AIDS cases among recipients of blood products is declining in developed countries, and the risk of acquiring HIV infection through blood transfusion is currently estimated to be far less than 1/100,000 per unit transfused (Cummings and others, 1989). Although considerable progress in blood transfusion safety has also been made in developing countries, an important proportion of blood donations remains unscreened for HIV infection and blood is still too often transfused when it is not appropriate. As a result, many blood transfusion recipients, especially children with malaria-induced anaemia and women with pregnancy-related anaemia, are still acquiring HIV infection through blood tranfusions, which could have been

prevented (Jäger, Jersild and Emmanuel, 1991). Rapid agglutination tests may make screening more widely practised and, together with more rational use of blood, may achieve substantial improvements in blood safety.

470. Preventing women from becoming infected before and during pregnancy is undoubtedly the best approach to preventing mother-to-child transmission. However, several millions of women of child-bearing age are already infected with HIV. Women known to be HIV-infected should receive counselling about the risks of perinatal transmission of HIV and should have easy access to contraception and, where legal, pregnancy termination services. Although transmission of HIV from mother to child through breast milk is becoming increasingly important due to the greater number of infected women of child-bearing age, WHO nevertheless recommends that breast-feeding should continue to be promoted and supported because of the important benefits of breast-feeding for child survival. Where the primary causes of infant deaths are infectious diseases and malnutrition, an infant's risk of becoming infected with HIV through breast milk is likely to be lower than its risk of dying of other causes if deprived of breast-feeding. In these settings, breast-feeding should remain the standard advice to pregnant women, including those known to be HIV-infected.

471. In settings where infectious diseases are not the primary cause of death during infancy, pregnant women known to be infected with HIV should be advised not to breast-feed but to use a safe feeding alternative. Where voluntary, confidential testing is feasible and affordable, women whose infection status is not known should be advised to seek counselling and testing to guide their decision about breast-feeding.

472. In all countries, the first and overriding priority is to prevent women of child-bearing age from becoming infected with HIV before pregnancy during pregnancy or post-partum (WHO, 1992d).

6. *Drugs and vaccines*

473. Drug research continues along several fronts: treatment of HIV infection (antiretroviral treatment), prophylaxis and treatment of important HIV-related diseases; and prevention of transmission of HIV and other sexually transmitted diseases.

474. Antiretroviral treatment still largely rests on use of nucleoside analogue inhibitors of the viral reverse transcriptase, such as zidovudine (AZT), didanosine (ddI) and zalcitabine (ddC). From the limited data that are available it appears that treatment with a combination of zidovudine and didanosine or zidovudine and zalcitabine confers longer-lasting benefits than treatment with zidovudine monotherapy. Didanosine monotherapy is emerging as an alternative to zidovudine. The cost of these drugs and the level of monitoring required for toxicity, however, prohibit their large-scale use in developing countries. The initial promise of the very potent non-nucleoside analogue reverse transcriptase inhibitors has been thwarted by the extremely rapid development of viral resistance to these drugs. New classes of drugs, like inhibitors of the viral protease or tat proteins, are undergoing early clinical evaluation (Lange, Cooper and Danner, 1991).

475. In the current situation, prophylaxis and treatment of important secondary HIV-related diseases are more cost-effective approaches (than antiretroviral treatment) to alleviate suffering and decrease mortality due to HIV disease in most developing countries. Priority areas here are prophylaxis and treatment of tuberculosis, candidiasis, toxoplasmosis and cryptococcosis. All are feasible; the main challenge is to identify the most cost-effective regimens. An important new pathogen that is emerging in HIV-infected patients in South-eastern Asia, and that requires identification of the most effective treatment strategies, is the fungus *Penicillium marneffei* (Khuanchai and others, 1992).

476. Vaccines are currently under development for the prevention of HIV infection, for the treatment of HIV-infected persons and for the reduction of HIV transmission from mother to child. Fourteen candidate vaccines have been tested in Phase I/II trials both in HIV-seropositive and in HIV-seronegative volunteers. These trials have shown that most candidate vaccines were safe and well tolerated, and some were able to induce immune responses that may correlate with protection.

477. Phase III trials of preventive vaccines to determine their protective efficacy may begin within two or three years. Before that, candidate vaccines that induce higher and more sustained levels of broadly reactive immune responses would have to be developed, and some information would be available on their potential to prevent infection with different strains of HIV or by different routes, including sexual transmission. Phase III trials would last from three to four years before results become available, and it is likely that several efficacy trials would be required before a safe and effective vaccine, appropriate for public health purposes, would be developed (Esparza and others, 1991).

478. Once such a vaccine is developed, the next challenge will be to make the vaccine available, at affordable prices, to the population in need, especially to those populations where the use of the vaccine will result in a decrease of the epidemic spread of HIV.

7. *Conclusion*

479. The HIV/AIDS pandemic is not geographically uniform. Depending upon social and behavioural factors, the pandemic will manifest itself differently in different countries. Within a given country, multiple epidemics will most likely occur; first, among people whose behaviour places them at increased risk of HIV infection and then among members of other population groups in most countries.

480. Some parts of the world still have the opportunity, denied to many others, of reducing the impact of HIV/AIDS by preventing infections through effective and timely interventions and by creating and supporting social institutions that minimize the impact of infections that have already occurred.

C. HEALTH AND MORTALITY POLICIES

481. Success in combating morbidity and mortality is one of the most important human achievements of the latter part of the twentieth century. Life expectancy at birth, a measure that reflects overall health and mortality, increased worldwide from 47.5 years during the period 1950-1955 to 63.9 years in 1985-1990, an increase of 16.4 years, or 34.5 per cent. Developed countries increased their life expectancy at birth by 8.0 years, or 12.1 per cent, from 66.0 years during the period 1950-1955 to 74.0 years in 1985-1990. Developing countries increased their life expectancy at birth by 19.2 years, or 45.5 per cent, from 42.2 years during the period 1950-1955 to 61.4 years in 1985-1990. Thus, from 1950-1955 to 1985-1990, the length of human life was increased by 16 years for the world as a whole, by 8 years in the developed countries and by 19 years in the developing countries.

482. These positive gains in life expectancy were not experienced to the same degree in all regions of the world; indeed, there are considerable variations at the major-area and regional levels, and, even more so, among individual countries. For example, life expectancy in Africa was 49.5 years for the period 1985-1990, at a time when Asia had a life expectancy of 62.7 years; Europe, 74.4 years; Latin America, 66.7 years; Northern America, 75.6 years; Oceania, 71.3 years; and the former USSR, 70.0 years. There is also diversity within regions; for example, Western Africa had a life expectancy of 48.8 years during the period 1985-1990, compared with 59.7 years in Southern Africa; Southern Asia had a life expectancy of 56.8 years, compared with 70.4 years in Eastern Asia.

483. Despite the considerable progress made in increasing life expectancy worldwide, in reality, there is no acceptable level of mortality, and no Government considers the levels of mortality in a country to be fully satisfactory. However, Governments do, within a highly qualified sense, characterize levels of mortality as "acceptable", given the level of medical technology and the resources available for reducing mortality.

484. The percentage of Governments that viewed their current level of mortality as unacceptable increased from 62 to 67.4 per cent during the period 1976-1992 (figure 37). As of 1992, 128 countries regarded their level of life expectancy at birth as unacceptable. More than half (51.8 per cent) of the developed countries considered their mortality levels to be unacceptable. Not surprisingly, almost three fourths (73.9 per cent) of the developing countries regarded their mortality levels as unacceptable, whereas all of the least developed countries maintained that view.

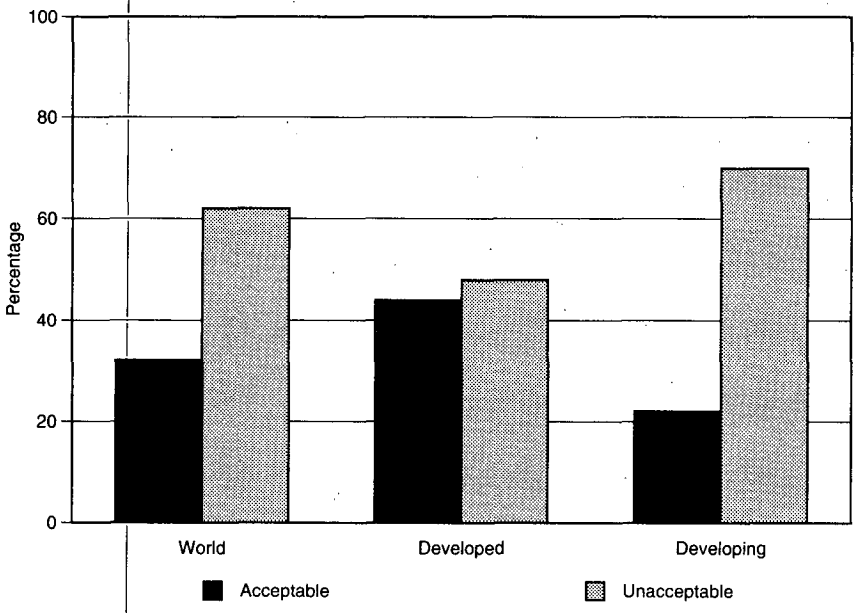
485. Life expectancy is increasing worldwide, with the global average currently at 65 years. Although almost all the developed countries have an average life expectancy of over 70 years, the majority of the least developed countries still have life expectancies under 50 years. Overall mortality rates, as well as infant and child mortality rates, are continuing to decrease globally. Certain childhood diseases, such as measles, poliomyelitis, pertussis and neonatal tetanus, are decreasing due to a rapid increase in coverage by immunization programmes. Cardiovascular diseases in the developed countries (except those in Eastern Europe) are decreasing as a result of the spread of health education and health promotion activities.

486. Despite those advances, the world health situation is not altogether bright. Infectious and parasitic diseases account for almost half of all deaths occurring in the developing countries, and diarrhoeal diseases remain a major cause of morbidity and mortality among infants and young children in those countries. Over 500,000 women die each year from causes related to pregnancy and childbirth. Acute respiratory infections are the chief cause of child mortality in the developing countries, claiming the lives of 4.3 million children under age 5 each year. Tropical diseases are increasing, with cholera spreading to the Americas for the first time in the twentieth century, yellow fever and dengue epidemics affecting greater numbers of people, the malaria situation worsening and one third of the world population at risk of developing tuberculosis. Sexually transmitted diseases remain among the most frequent infectious conditions worldwide; the AIDS pandemic is spreading globally, with over 1 million people newly infected with HIV each year. Diabetes is on the rise everywhere, and approximately 7 million new cancer cases occur each year, half of them in the developing countries, which, in addition to being plagued by communicable diseases (including AIDS, cholera, malaria and tuberculosis), have begun to experience epidemics of such diseases as cancer, heart disease, stroke and diabetes, which used to be considered restricted to developed countries (figure 38).

487. An analysis of policies intended to lower mortality brings into focus wide regional, intercountry and intracountry disparities in health conditions. Moreover, there are signs

Figure 37. Mortality levels, 1992: Governments' views of acceptability

(Percentage)



Source: Population Policy Data Bank maintained by the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat.

that the gap in life expectancy at birth between the least developed and other developing countries may be widening.

488. In the developed countries, policy concerns have focused on the health needs of their growing elderly populations and on diseases connected with individual lifestyles and environmental conditions (e.g., cardiovascular disease, diabetes, cancer). In the developing countries, the double burden of communicable and chronic diseases has been aggravated by the spread of the AIDS pandemic and by the reappearance of old scourges, such as tuberculosis, cholera and malaria. Indeed, the resurgence of cholera in Africa and Latin America has been one of the more unfortunate recent public-health events. Although cholera cases can be adequately treated by administering a solution of oral rehydration salts, in the long term, the only effective means of eliminating cholera lies in promoting the sanitary disposal of human waste, improving access to safe water and ensuring safe food preparation.

489. More than 1 million lives are lost to malaria every year, one death every 30 seconds. Indeed, malaria threatens 40 per cent of the world population, debilitating the active population, undermining the survival of children and straining the resources of both individuals and countries. Moreover, the situation appears to be deteriorating in many areas, particularly in the "frontiers" of economic development where there is deforestation, mining and migration of large numbers of workers. The disease has also spread in parts of the world where there are wars and civil conflicts. These difficulties are compounded by the increasing resistance of malaria to various antimalarial drugs and the development of resistance to commonly used insecticides.

490. Schistosomiasis, a water-borne parasitic disease that ranks second (after malaria) among the major tropical diseases, is currently endemic in 76 tropical developing countries, afflicting an estimated 200 million people and threatening from 500 million to 600 million others. Although schistosomiasis can now be controlled, efforts are endangered by the high cost of the drugs required to control it in relation to the limited financial resources of the endemic countries.

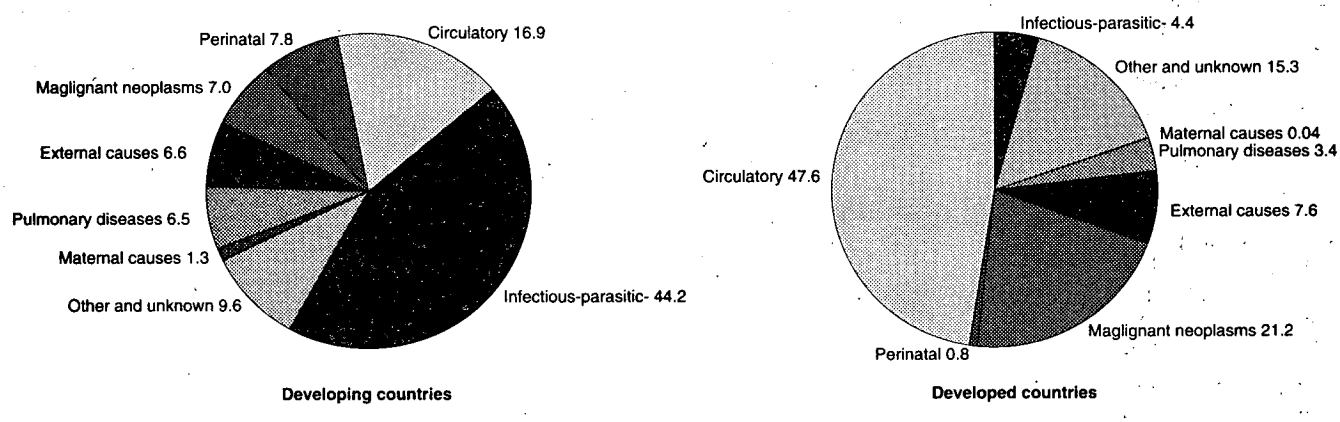
491. The picture in the developing countries is not entirely bleak. Encouraging progress has been made in such areas as poliomyelitis eradication, control of acute respiratory infections and of diarrhoeal diseases and immunization. Worldwide, the proportion of the world children immunized against the six killer diseases in childhood has increased from only 5 per cent in 1974 to about 80 per cent in 1990. As a result, over 3 million child deaths and over 400,000 cases of paralytic polio are currently being prevented each year. Moreover, an outreach system was set up which is capable of delivering vaccines to over 100 million children on from four to five separate occasions in their first year of life. In most countries, the system is now being used for other essential services. For example, in Asia, the immunization network is used to combat diarrhoeal diseases, acute respiratory infections and vitamin A deficiency. India is using the system for its Safe Motherhood Initiative, and Bangladesh is using it to strengthen family planning services.

492. Although pregnancy and childbirth have become somewhat safer in many countries, over 500,000 women die each year from maternal causes. Indeed, WHO estimates that about half of the women in the developing countries still give birth without any trained assistance and cannot reach medical help in an emergency. As part of the Global Strategy for Health for All, WHO is collaborating with countries to ensure that all women shall have community-based maternity care during pregnancy and delivery, and access to a hospital or clinic in the case of life-threatening obstetric complications.

493. A health concern common to both the developed and the developing countries is the spread of AIDS, which not only has diverted attention from other health-care issues but has threatened to siphon off a significant proportion of the funds devoted to medical research. At the beginning of the 1980s, only about 100,000 persons worldwide were infected with HIV. During the 1980s, between 5 million and 10 million people became infected. The WHO Global Programme on AIDS reports that there have been about 2.5 million AIDS cases. Approximately 13 million men, women and children had been infected with the AIDS virus from the beginning of the pandemic to January 1993. HIV infection is generally and sometimes dramatically increasing in already affected areas. Moreover, the epidemic has expanded its geographical scope. The pandemic has become extraordinarily complex and increasingly diverse at the national, provincial and community levels, reflecting the great variety of social, economic and cultural circumstances which cre-

Figure 38. Causes of death, developing and developed countries, 1990

(Percentage)



Source: World Health Organization, *Implementation of the Global Strategy for Health for All by the Year 2000: Second Evaluation; Eighth Report on the World Health Situation*, vol. 1, *Global Review* (Geneva, 1993), p. 106.

ate, enlarge and maintain the potential for exposure to HIV. The global AIDS strategy focuses, among other things, on better treatment and prevention programmes for other sexually transmitted diseases; greater focus on prevention of HIV infection through improvement of women's health, education and status; and greater support to prevention programmes. Recently, WHO announced that it would place greater emphasis on the relation between the role of women in the developing countries and their inability to exercise power in sexual practices that put them at risk for the virus.

494. Whereas about 80 per cent of new AIDS cases are in poor countries, more than 90 per cent of the funds spent on the treatment of the disease have been in the United States, Western Europe and other more developed regions. In the developed countries, for example, persons with AIDS are routinely treated with zidovudine at an annual cost of about $2,500, five times more than the per capita gross national product in sub-Saharan Africa.

1. *Africa*

495. Mortality has declined steadily in Africa over the past several decades. Nevertheless, this major area still has the highest levels of mortality in the world. The estimated life expectancy at birth in Africa was only 51.7 years during the period 1985-1990. Moreover, in 1992, life expectancy at birth was under 50 years in 24 out of 53 African countries. Only one country, Seychelles, had a life expectancy at birth of 70 years or over.

496. In the past decade, war and internal strife in many African countries have disrupted desperately needed health-care systems and supplies. Large-scale movements of refugees and displaced persons have resulted in escalating morbidity and mortality rates and have stretched the already weakened national health-care systems to the breaking-point.Other factors contributing to poor health conditions in Africa include drought, famine and poor sanitation.

497. Cholera has been sweeping through Africa at a catastrophic pace, challenging the effectiveness of such measures as vaccination and the cordon sanitaire, which have been used for more than 20 years to try to prevent its spread. Although the number of cholera cases is lower than that in Latin America, mortality from cholera in Africa is considerably higher. Indeed, the overall fatality rate from cholera in Africa is about 10 per cent, compared with about 1 per cent in Latin America.

498. In addition to those major problems, many tropical and intestinal parasitic diseases exist in sub-Saharan Africa that are unknown or rare in temperate and developed countries. WHO estimates, for example, that malaria afflicts more than 250 million Africans. Over 90 per cent of the cases in Africa are due to the most dangerous malaria parasite, *Plasmodium falciparum*, which is rapidly developing resistance to the most widely used and affordable antimalarial drug, chloroquine. A further problem is that malaria has extended to some originally malaria-free areas and to other areas where it had been controlled in the past, causing severe outbreaks with high mortality. In addition, schistosomiasis afflicts some 141 million Africans; filariasis affects an estimated 28 million; onchocerciasis (river blindness), 17 million; leprosy, from 1 million to 2 million; and leishmaniasis, about half a million.

499. Progress has been made in several areas. Whereas fewer than 5 per cent of Africans were being immunized a decade ago, coverage is currently over 50 per cent. During the past decade, a dramatic reduction has also occurred in the number of cases of dracunculiasis (guinea-worm disease).

500. AIDS continues to plague the continent; sub-Saharan Africa has been the hardest-hit part of the world, with over 7.5 million adults and children infected with HIV since the beginning of the pandemic. According to WHO, by mid-1991, more than 500,000 paediatric AIDS cases resulting from perinatal transmission may have occurred, with over 90 per cent of that total in sub-Saharan Africa. In some countries in Africa, the disease has wiped out entire villages, while up to 80 per cent of adults hospitalized in medical wards in some African cities have HIV-related diseases. Although AIDS will have a substantial impact on mortality rates, which will be greater in some countries than in others, it is expected to result in an actual shrinking of the population in only one or two countries. Moreover, besides the death toll, which by the end of the century will be approximately the same as that of malaria, AIDS has disproportionate effects on already weakened economies, and weakened family structures, in the developing countries. The destabilizing effect of AIDS is also reported as one of the causes of urban migration in those countries.

501. Of the 53 countries in Africa, 90.6 per cent considered the current level of mortality to be unacceptable; and only 9.4 per cent, or five countries (Côte d'Ivoire, the Libyan Arab Jamahiriya, Mauritius, Tunisia and Seychelles), considered it acceptable. Most Governments in Africa also viewed their current levels of infant and child mortality as unacceptable, and the majority considered their current expectation of life at birth to be unacceptable as well.

502. Many countries have identified quantitative targets for mortality levels, some planning to reduce mortality by as much as 50 per cent by the year 2000. Specific population groups whose mortality levels are of particular concern in most African countries are infants and children under age 5, and women of child-bearing age. In addition, pregnant women, mothers, adolescent girls and the rural population are of concern in many countries. Conditions or diseases that are typically of major concern in the majority of countries in Africa include diarrhoeal diseases, respiratory infections, AIDS, malaria, malnutrition and, to a lesser extent, complications of pregnancy, tuberculosis, measles and diseases of early childhood.

503. AIDS is a major concern of the overwhelming majority of countries in Africa. Although most Governments have adopted special measures to prevent or reduce the occurrence of AIDS, many have experienced major difficulties with regard to the availability of resources needed to address the problem. These difficulties have included the need for additional human and financial resources, the lack of coordination among donor organizations and the lack of testing equipment and resources for training, as well as cultural resistance. Among the measures taken are the establishment of AIDS control and prevention programmes, emphasis on IEC, training of health workers, epidemiological surveillance of AIDS cases, sensitivization and public awareness campaigns, systematic testing of blood donors, promotion of the use of condoms as a preventive measure and screening of high-risk groups.

504. In Eastern Africa, particularly in Uganda where the epidemic is advanced, the general attitude regarding AIDS prevention is one of great openness. In Malawi, the Government has publicly acknowledged the tragedy of AIDS, particularly among women and children, and has been making use of explicit educational messages. In Kenya, a vigorous campaign against AIDS has been con-

ducted through the media and various other economic mechanisms, including the "social marketing" of condoms. A direct marketing campaign for condoms has also been undertaken at Kinshasha, Zaire. The Congo has established the National Committee to Fight AIDS and has tried to sensitize the population to the damaging effects of the disease through use of the mass media. The Government of Mauritius is promoting the use of condoms as a preventive measure and is screening high-risk groups. Namibia has established the National AIDS Control Programme, which includes the development and dissemination of national guidelines on AIDS prevention; social mobilization of activities at the national, regional, district and community levels; production and dissemination of information, education and communication materials on prevention and control of AIDS; training of health workers; HIV testing of all blood donations, promotion of the use of condoms and establishment of a surveillance system. In several African countries, non-governmental organizations have spearheaded a number of innovative projects to combat the pandemic. In Cameroon, for example, in one regional capital, a non-governmental organization has attempted to train prostitutes to be peer educators. In Swaziland, AIDS prevention efforts have involved a nationwide project directed to out-of-school youth, members of literacy groups, traditional healers, firemen and owners of local bars. In Zimbabwe, AIDS prevention is being integrated into an existing child survival project, focusing on training of community-level health and development workers and local leaders.

2. *Asia*

505. In recent years, Asia has been experiencing a rapid rise in lifestyle-related diseases and pressing environmental health issues. Diseases of the heart and vascular system pose a major health challenge in most parts of Asia. Stroke is a serious problem in China, Japan and the Republic of Korea. Coronary disease is on the rise in Malaysia, the Philippines and Singapore. Population ageing, abandonment of traditional diets, tobacco smoking and sedentary behaviour are some of the principal factors which have contributed to this trend. On the positive side, in 1990 Asia passed the mark of 90 per cent coverage for immunization against the six major killer diseases in childhood, 10 per cent above the level set by WHO. Although there have been significant improvements in health-care services in many countries, more than two thirds (68 per cent) of Governments in Asia viewed their levels of mortality as unacceptable: all of the Governments in Southern Asia considered their mortality level to be unacceptable, as did 70 per cent of Governments in South-eastern Asia, 60 per cent in Eastern Asia and 50 per cent in Western Asia. The mortality levels of infants and children under age 5 and of women of child-bearing age are of particular concern for most developing countries in Asia. Conditions or diseases that are typically of major concern to the majority of the developing countries in Asia include diarrhoea, respiratory infections, nutritional problems in children, complications of pregnancy, communicable diseases, malaria and tuberculosis. Developed countries in Asia are concerned about such problems as AIDS, cancer, neoplasms, cardiovascular diseases and vehicular accidents.

506. Malaria has been a growing problem in Asia. In Cambodia, a particularly virulent and drug-resistant strain of malaria threatens the United Nations peacekeeping forces, as well as several hundred thousand refugees awaiting repatriation. Resistance to chloroquine is present throughout the area of distribution of the most virulent malaria parasite, *Plasmodium falciparum*, having lost nearly all its therapeutic effect in Thailand and parts of Myanmar. Resistance to other antimalarial drugs has developed in vast areas of Thailand, in some parts of Myanmar, and in Bangladesh, Bhutan and Indonesia. The problem of insecticide resistance in malaria vectors has also been increasing resistance to dichloro-diphenyl-trichloro-ethane (DDT) among the principal vectors in India, Indonesia, Nepal and Sri Lanka.

507. The AIDS virus is currently showing dramatic epidemic spread in Southern and South-eastern Asia. From almost no reported cases in the mid-1980s, more than 1 million adults have already been infected. Although the pandemic in Asia is still at an early stage, there is serious concern that the virus may be spreading at a pace reminiscent of sub-Saharan Africa in the early 1980s. With more than twice as many adults as in sub-Saharan Africa, Southern and South-eastern Asia have an even greater potential for epidemic spread. Indeed, WHO predicts that by the mid- to late 1990s, more Asians than Africans will be infected each year. In India, the Government has reported that there already may be as many as 1 million persons infected. Over a four-year period, Thailand went from a situation where there was virtually no HIV infection to one where in certain parts of the country perhaps 4 per cent of the general adult population are HIV-positive. In China, there is a considerable problem in the south associated with drug use.

508. Governments throughout Asia have adopted population policies to address morbidity and mortality issues. In Bangladesh, for example, the Government has adopted a policy of Health for All by the Year 2000, focusing on consolidation and strengthening of health-care coverage; prevention, control and treatment of major communicable diseases; improvement of the nutritional status of the population, and especially of mothers and children; and adequate production, supply and distribution of essential drugs, vaccines and other diagnostic and therapeutic agents. Sri Lanka, which is concerned with the mortality of low-income groups, and especially with malaria, tuberculosis, leprosy, sexually transmitted diseases, filariasis and human rabies, has also adopted the policy of Health for All by the Year 2000, with primary health care as the key approach. The Population Programme of the Philippines is especially concerned with infants, children, and mothers under age 20 and over 35, as well as those with more than four births. Government programmes were designed to reduce infant and child mortality and to improve health conditions, with malnutrition, anaemia and endemic diseases, such as tuberculosis, measles, malaria, hepatitis and typhoid, being of particular concern. The Government of the Islamic Republic of Iran is committed to improving the health of all population groups and to reducing foetal, infant and child mortality, and maternal morbidity and mortality. The Government of Nepal is focusing on offering different types of immunization to over 30 million children during the period 1992-1997; programmes are under way to reduce mortality from respiratory infections and diarrhoeal diseases. In Viet Nam, major efforts have been made to control diarrhoeal diseases; in the late 1980s, the United Nations Children's Fund (UNICEF) and WHO assisted in an expanded immunization programme which vaccinated children against the six dangerous childhood diseases. Singapore continues to strive for a high standard of health care, with special emphasis on the promotion of health through the prevention of diseases, education of the public and improvement of primary health and hospital services. Japan has established recommended dietary and exercise guidelines to be included in health edu-

cation and has conducted research in health education, implemented the Hygiene Education Assembly and encouraged the dissemination of knowledge about health and fitness by the Japan Health Promotion and Fitness Foundation.

509. The Republic of Korea desires to shift the primary focus of its population policy from fertility to policies to improve the quality of life of the population, with morbidity and mortality at the top of its list of priorities. The Government is concerned about the very high mortality levels among the male population aged 40-49 years; specific areas of concern are accidents (traffic, industry, violence) and smoking and alcohol consumption that can cause cancer, cardiovascular diseases and liver disease. The Government of the Republic of Korea has strived to improve the level of national health and medical care by implementing programmes to improve nutrition and maternal and child health; to prevent diseases and effectively manage severe acute and chronic diseases through increased health education; to improve and expand medical services; and to strengthen hygienic and safe control of foods and medicines. The Government has opened 89 MCH centres, expanded the immunization programme, implemented systematic surveillance, put a warning phrase on cigarette packs, designated non-smoking areas and distributed health education materials to local governments and other related authorities. Special attention also has been given to AIDS, leptospirosis, hepatitis B and legionellosis; moreover, plans have been formulated to eradicate malignant neoplasms, hypertension and cerebrovascular disease.

510. As concerns policy responses to the AIDS pandemic in Asia, the Government of China has established a network of epidemiological prevention centres, testing sites and wide-ranging sexuality education/HIV prevention programmes. Monitoring stations have been set up in a number of cities. In the Republic of Korea, the law now requires people in "high-risk groups" to be tested for HIV. At the discretion of local officials, persons that are HIV-positive may be quarantined if they are considered likely to infect others. In Thailand, the Ministry of Health has drafted a law allowing health officials to test persons for HIV against their will. Persons that do not cooperate can be held for up to 180 days at special rehabilitation centres. Moreover, the Government of Thailand has emphasized surveillance, and information, education and communication in its fight against AIDS, has set up counselling teams in villages and has encouraged 100 per cent condom use. The Government of India has pursued various initiatives in different cities, including screening of blood donors at Ahmedabad, introduction of condoms for prostitutes at Madras and a newsletter for homosexual men at Bombay. In its reply to the Seventh United Nations Population Inquiry Among Governments, the Government of Sri Lanka reported that it had established a special unit within the Ministry of Health to monitor the situation and provide information to the general public; the Government also reported that foreigners in Sri Lanka that were found to be suffering from the disease were repatriated as quickly as possible. The Government of Bangladesh has formed the National AIDS Committee and technical committee in order to curb the spread of AIDS; a World Bank project has been undertaken to control and prevent sexually transmitted diseases and AIDS. In Pakistan, attention has focused on blood transfusion services; the country is promoting safe sex, the screening of blood, the use of disposable syringes and an extensive health education campaign. The Government of Nepal has undertaken a project to prevent and reduce the occurrence of AIDS, and plans are under way to establish a 20-bed hospital for AIDS patients. Japan has emphasized health education through various measures; such as videos, leaflets and pamphlets. Singapore has emphasized surveillance, public education, and counselling and support services for high-risk persons. Measures adopted by the Republic of Korea include health education for the prevention of AIDS and other sexually transmitted diseases, early detection of HIV and development of an AIDS control system.

511. Among the countries in Western Asia, the Islamic Republic of Iran, Iraq, Oman, Saudi Arabia, the Syrian Arab Republic, the United Arab Emirates and Yemen have experienced varying degrees of malaria transmission. As a consequence of mass movements of the population and refugee problems, the malaria situation had deteriorated in recent years in Oman and in the southern part of the Islamic Republic of Iran. Considerable progress had been made, however, in Saudi Arabia and in the Syrian Arab Republic, where the pilgrimage areas are currently considered malaria-free.

512. The Islamic Republic of Iran, whose Government is specifically concerned about the health of infants, children under age 5 and pregnant women, and such conditions as diarrhoeal diseases, respiratory infections and AIDS, is committed to reducing morbidity and mortality levels, especially foetal, infant, early childhood and maternal mortality, and to improving the health of the entire population. Yemen is concerned about the mortality levels of women, mothers, children, inhabitants of rural communities and migrants returning because of the Gulf War. Specific conditions that currently are of major concern are the six immunizable childhood diseases, diarrhoea, infectious diseases, malnutrition, malaria and complications of pregnancy. The Government of Yemen has formulated its National Population Strategy 1990-2000 and Population Action Plan, whose objectives for the year 2000 are to reduce infant and child mortality by 54 and 50 per cent, respectively, and maternal mortality by 50 per cent; to raise the coverage of immunization of children under one year of age to 85 per cent or more and to expand coverage of immunization against tetanus among women of child-bearing age; to reduce the number of deaths of children due to diarrhoeal diseases and acute respiratory infections and to reduce the number of cases of severe or moderate malnutrition in children under age 5; to raise the life expectancy at birth from 46 years in 1991 to 60 years; and to raise primary health care coverage from 40 per cent in 1990 to 90 per cent. The Government of Jordan is concerned about cardiovascular diseases; AIDS is also a major concern. To improve levels of morbidity and mortality in the country, the Government of Jordan has set the following policies and priorities: improvement and development of a health information system that would provide accurate statistical information that could be used by health planners and researchers; improvement and development of a health-care delivery system that would promote maternal and child health services, including the establishment of a modern paediatric hospital, well-equipped intensive premature care units, prenatal and postnatal clinics in all general hospitals and maternity homes in large cities; support of training and research; development of administrative and supervisory systems, including decentralization of the public-health sector, improvement of the medical supply system, establishment of the Higher Nursing Council; initiation of monitoring, evaluation and quality assurance; strengthening cooperation and coordination with international and voluntary agencies; and support of the national child-spacing programme.

513. In its reply to the Seventh United Nations Population Inquiry Among Governments, the Government of Jordan reported that, in response to the AIDS pandemic, it was conducting surveillance, emphasizing health education and requiring compulsory testing of immigrants. Problems, however, were lack of resources and "traditions which prevent open discussion regarding sexual behaviour". The Islamic Republic of Iran has emphasized public health education, manpower training, serological surveys for high-risk groups and blood and blood product safety.

3. *Europe*

514. All countries in Europe, except Romania, have an average life expectancy at birth of 70 years or over. As a result, a higher proportion of Governments in Europe (61.5 per cent) than in most other major areas considered their levels of mortality to be acceptable. However, whereas 70 per cent of the Governments in Northern Europe and 50 per cent of those in Southern Europe considered their mortality levels acceptable, 100 per cent of the Governments in Western Europe held that view. In contrast, 83.3 per cent of the Governments in Eastern Europe considered mortality levels to be unacceptable. In those countries, infant and general mortality rates are the highest in Europe. Moreover, mortality in Eastern Europe has been rising among certain age groups, particularly among middle-aged males, largely as a result of alcoholism, industrial accidents, poor nutrition and smoking.

515. The primary healths concerns of European countries are cardiovascular diseases, cancer and malignant neoplasms; for most, AIDS is also a great concern. Some countries, notably Denmark, Finland and Norway, are concerned with suicide; others, including Italy, Latvia and Lithuania, about accidents. In Lithuania and Poland, levels of infant mortality are a cause of concern. Lithuania is also concerned about harmful working environments, air and water pollution, and bad habits, including smoking and alcohol abuse.

516. In recent years, tuberculosis has been making a powerful comeback in a number of Western European countries, particularly among underprivileged groups. Countries with the highest percentage of increase in tuberculosis notification rates include Austria, Denmark, Finland, Ireland, Italy, Norway and Switzerland. In Denmark, the Netherlands, Norway, Sweden and Switzerland, it appears that the number of cases has been increasing mainly among the foreign-born.

517. The Government of Denmark has established a health promotion programme that gives priority to preventing accidents, cancer and cardiovascular disease; its goals are to reduce the number of premature deaths, to reduce the number of people that are disabled or suffering and to enable more people to maintain their quality of life when they grow old. Finland, whose Government is concerned about the mortality levels of men with cardiovascular diseases, unskilled labour and farmers, has adopted a policy of Health for All by the Year 2000; the Government's strategy is to promote lifestyles conducive to health, to eliminate or reduce preventable conditions by measures directed to the individual and the environment, and to further develop the health-services system. The goal is to add years (and health) to life and life to years. The Government of Germany is giving increasing priority to prevention, especially to preclude late-onset complications in chronically ill persons, including those suffering from diabetes, bronchial asthma and other chronic lung diseases, allergies and mental health. Italy, which is concerned about males aged 20-25 years and about road accidents for young people, has already taken some action to attain the specific targets set by WHO, especially those pertaining to the health care of women, mothers and children, the disabled, drug addicts, alcoholics, the mentally disturbed and the elderly. The Government of the Netherlands, which is paying particular attention to differences in health and in infant-mortality levels in various socio-economic groups, and differences in health and mortality between the native population and foreign-born residents of the Netherlands, has recently focused its attention on the chronically ill. Its goal is to reduce illness and death resulting from cancer, cardiovascular diseases and accidents. The Government of Poland, whose goal is to reduce mortality levels, has undertaken a number of projects intended to lower infant mortality by at least 50 per cent and to extend the average life expectancy, along with health promotion programmes directed to prevention of cancer and cardiovascular diseases, which are the main causes of death in Poland. The Government of Hungary is committed to reducing morbidity and mortality levels, strengthening preventive and curative medicine and changing the self-destructive lifestyles and health-impairing habits of its population in order to prevent certain diseases and causes of death. The United Kingdom of Great Britain and Northern Ireland is committed to reducing mortality rates for coronary heart disease and stroke, cancer, suicides and mental illness, accidents, with emphasis on smoking, diet and nutrition, blood pressure and HIV/AIDS.

518. Governments in Europe have adopted various measures to prevent or reduce the occurrence of AIDS. The Government of Austria, for example, has organized information campaigns, established AIDS centres in all the provinces, cooperated with schools and issued publications. Denmark, which had recorded 1,014 AIDS patients and 684 AIDS-related deaths as of July 1992, has the highest number of cases per capita in Northern Europe. The Ministry of Health in Denmark established the National AIDS Committee to formulate a general policy and to implement measures to reduce HIV infection. An AIDS secretariat was established in 1986 within the National Board of Health to initiate and coordinate measures to combat HIV and AIDS. A regional organization with a local network of AIDS committees and AIDS informants was established; an AIDS hotline, a monthly newspaper, mass media campaigns, locally organized activities and many voluntary groups help disseminate information on AIDS. Finland, which has a low prevalence of AIDS, has adopted public information campaigns and campaigns in schools. Germany has organized an AIDS-prevention campaign for the general population and certain high-risk groups, using the mass media, pilot projects and research. The Government of Italy is stressing the dissemination of information and education as a means of reducing the occurrence of AIDS. Ireland has adopted education campaigns, surveillance programmes, primary care services, palliative care and acute hospital services. Liechtenstein has undertaken information campaigns for the general population and for high-risk groups, as well as HIV screening. The Netherlands has adopted measures and education campaigns directed to both the general public and specific target groups; it also strives to enhance diagnosis and treatment of persons with HIV or AIDS and to reduce stigmatization and discrimination. Norway stresses the dissemination of information on AIDS and campaigns directed to high-risk populations. The Government of Estonia has approved an AIDS prevention programme which would include disseminating information about AIDS, counselling and treating HIV-infected persons and AIDS patients, organ-

izing educational programmes for schools and for health-care and social workers, and screening all blood donations. Latvia is screening high-risk groups. The United Kingdom has emphasized prevention through public awareness campaigns and education; monitoring, surveillance and research by improving the understanding of HIV infection, its transmission, prevention and treatment; and treatment, care and support.

4. *Latin America*

519. Most countries in Latin America have already exceeded the goal prescribed by the global Strategy of Health for All by the Year 2000: a life expectancy of at least 60 years. Despite this achievement, Governments in Latin America continue to be concerned about the level of mortality. Out of 33 countries, over half considered their life expectancy to be unacceptable. Of the 14 countries that considered their life expectancy to be acceptable, six are in the Caribbean, four in Central America and four in South America.

520. The health situation in Latin America has been affected by the worsening economic situation in many countries, involving devaluation, inflation and overall deterioration of levels of living. Economic policies of structural adjustment have been characterized by a marked reduction in public spending on so-called "non-productive activities", such as education and health, translating into a lack of funds for health-care services and shortages of critical supplies. Indeed, as PAHO has noted, with few exceptions (such as the eruption of cholera), public health was not included among the political or economic priorities in Latin America.

521. A clear manifestation of declining levels of living was the outbreak of cholera in late January 1991, for the first time in the twentieth century. Seventy per cent of world cases were reported from 13 Latin American countries, with Peru alone reporting almost 300,000 cases. Malaria is also becoming a serious problem in frontier areas, with two thirds of the cases in Latin America occurring in the Amazonian basin as a result of colonization and the mining of the forest environment. In addition to malaria, as many as 18 million Latin Americans are currently infected with the parasite which can lead to disabling and potentially fatal Chagas disease; transmission through blood transfusion has been responsible for the "urbanization" of what until recently has been a disease of the rural poor. In addition, dengue continues to claim victims, the AIDS pandemic continues, other sexually transmitted diseases are on the rise, pulmonary tuberculosis has rebounded and yellow fever continues to occur.

522. As PAHO has noted, the countries in Latin America continue to experience changes in their mortality profiles, with an ongoing increase in the importance of cardiovascular diseases, tumours and other chronic degenerative diseases. One of the major changes in the epidemiological profile in the major area is the increasing relative importance of external causes of mortality. Indeed, accidents of all types and violent deaths, especially homicides, have increased alarmingly in several countries, such as Brazil and Colombia.

523. With regard to policies, all countries in Latin America have adopted national health policies and strategies that are coherent and consistent with the strategy of primary care and health for all. The adjustment of those policies and strategies, however, has been limited by financial, human and material restrictions, and, in some countries, by political and social instability.

524. In the Caribbean, the Government of Barbados has continued to focus on developing programmes to control chronic non-communicable diseases, particularly diabetes and hypertension. In Cuba, the establishment of the "family physician and nurse model" as the basic element in the national health system is one of the most important developments in recent years. In the Dominican Republic, despite the acute contraction of basic services, the Government has continued to advance towards its goals of eradicating diseases preventable by vaccination, preventing and controlling AIDS, reducing malaria and strengthening epidemiological surveillance and timely public-health responses to epidemic outbreaks. In Haiti, despite political upheaval, the Government has continued to focus on programmes to achieve universal immunization of all infants, as well as programmes to control diarrhoeal diseases, promote breast-feeding, combat tuberculosis and control malaria and other vector-transmitted diseases. After outbreaks of typhoid fever, Jamaica undertook special efforts, within its environmental health programme, to improve water quality and sanitation. The Government also continued to emphasize the prevention of communicable diseases (including sexually transmitted diseases and AIDS) and of chronic diseases, and the prevention and control of drug abuse.

525. In Central America, after decades of activity devoted to developing social institutions, the health indicators in many countries are currently favourable. However, risk factors and health problems linked to marginality and underdevelopment persist in some areas. In El Salvador, the Government has focused on strengthening health-care services, controlling communicable diseases, improving nutrition and strengthening environmental sanitation. The Government has also continued its malaria control programme and the programme to control diseases preventable by vaccination. In Guatemala, diseases preventable by vaccination remain a priority for the national authorities. In Honduras, the Government has assigned priority to the following problems: malnutrition; diseases preventable by vaccination; diarrhoeal diseases; acute respiratory infections; maternal and child health; and control and prevention of tuberculosis. In Nicaragua, given the major social adjustments (migration, resettlements, repatriations, demobilization) that have taken place in recent years, the Ministry of Health decided to continue coping with the critical problems of maternal and infant morbidity and mortality, mortality from violent causes, disability, communicable diseases, and morbidity and mortality due to chronic and degenerative diseases and malignant tumours. Panama has experienced a deterioration in overall health conditions. Whereas tuberculosis, meningitis and malaria were once largely overcome, they are again a concern of the national health authorities. Although there have been intensive national efforts to improve health conditions in the country, economic problems have limited the results.

526. Of the countries in South America, Guyana has continued to face severe economic problems; as a result, Government health services suffered from a lack of foreign exchange for drugs, equipment and supplies. The national health budget was cut back, and health professionals are in short supply. In Bolivia, the Government has assigned priority to implementing the National Plan for Survival, Child Development and Maternal Health, which encompasses comprehensive care for children under age 5, schoolchildren and adolescents, and for women of reproductive age, environmental sanitation, epidemiological surveillance and control, and strengthening of health-care institutions. In its

reply to the Seventh United Nations Population Inquiry Among Governments, Bolivia reported that it was also conducting large-scale information, education and communication activities both in Spanish and in native languages, with the goal of improving hygiene and encouraging popular participation in improving public health. In its reply to the Seventh United Nations Population Inquiry Among Governments, Colombia reported that it was conducting a massive vaccination campaign against childhood diseases, a campaign against cholera and campaigns against smoking and drug use. It was also making efforts to improve the coverage and quality of service of the Social Security Institute. In Ecuador, the goal of projects and programmes has been to offset the deterioration of health-care services caused by the economic and social crisis of recent years. The Government's national health policy has focused on comprehensive family and community health, food and nutrition, basic sanitation, drug supply and improved hospital care.

527. In 1991, Peru experienced a fulminant cholera epidemic which caused enormous economic consequences to an already fragile economy. The epidemic spread rapidly throughout the country, beginning in northern Peru, at first along the coast, and then reaching the mountains and lastly the jungle. In the light of those conditions, the Ministry of Health developed a proposed plan of action for 1990-1995 that outlines basic policies for the sector, including decentralization and regionalization of services, strengthening of health-care facilities and human resources, reorganization of the social security structure and coordination of technical cooperation.

528. With regard to the AIDS pandemic in Latin America, the largest number of cases are in Brazil, with an estimated 750,000 persons infected, followed by countries of the Latin Caribbean, the Andean area, Mexico, the Southern Cone, the Central American isthmus and, lastly, the English-speaking Caribbean. In recent years, the profile of AIDS has changed in more and more countries, shifting from the predominantly homosexual and bisexual pattern to a heterosexual one, with a consequent increase in the number of cases of the disease and of HIV infections among women and children. Policy responses have included strengthening of laboratory services and promotion of universal blood-screening, which has decreased blood-borne transmission in most countries of Latin America. The National Council for the Control and Prevention of AIDS in Mexico, for example, has been using the mass media in various ways to provide the general public with information on AIDS; one innovative approach has been an AIDS information campaign centred around the Mexico City metro. In Chile, the Centre for Education and Prevention and Social Health has produced a special video and sponsored AIDS-awareness skits in various public places (e.g., at beaches and discotheques). The Government of Colombia has undertaken testing and conducted educational campaigns intended to encourage the use of condoms. In its reply to the Seventh United Nations Population Inquiry Among Governments, Suriname reported that it was implementing a wide range of IEC activities through its National Aids Programme, including condom distribution, counselling services tailored to the cultural and linguistic diversity of the Surinamese population, prevention and control of transmission through screening of blood products, training for nurses, "train-the-trainer" workshops, AIDS hotlines and a project involving female sex workers. The AIDS policy in Cuba has included mandatory screening of the entire population and the quarantine of all HIV-positive persons.

5. *Northern America*

529. Despite high levels of life expectancy and highly developed, state-of-the art health-care systems, both Canada and the United States of America still considered their levels of mortality to be unacceptable. The Canadian approach to health care is defined by a number of basic principles: all Canadians have access to the system regardless of income; moving from one province to another does not change a person's coverage; all services provided by hospitals and all physician visits are paid for by the Government; moreover, health facilities are reasonably accessible to everyone. Although the system is administered by the Government, the provision of services rests with the private sector. The federal Government refunds to the provinces about 50 per cent of the cost of care; provincial governments cover the remainder with funds raised through taxation, individual premiums, premiums shared by employers and employees, and other methods. Among its major health initiatives, Canada has continued to promote its anti-smoking campaign and in 1991 prohibited all types of public advertising for tobacco. The National AIDS Strategy was introduced in 1990.

530. In the United States, the Government is particularly concerned about families and individuals whose incomes fall below the poverty level because they are at increased risk for the same causes of mortality as the rest of the population. Groups of special concern to the Government are African-Americans, American Indians, Asian and Pacific Islander Americans and Hispanic Americans. The leading causes of death in the United States are cancer, heart disease, injury and stroke; the major causes of infant mortality are low birth weight, sudden infant death syndrome, congenital anomalies and respiratory distress syndrome; the leading cause of death among children aged 1-14 years is unintentional injury. The main causes of death among adolescents and young adults are associated with substance abuse, violence and risk-taking; young African-American males are at particularly high risk for violent death. The African-American population has a significantly higher infant mortality rate than the rest of the United States population, a problem accentuated by lower income levels.

531. The Government of the United States is particularly concerned about cancer, heart disease, injury, stroke, homicide, HIV/AIDS and low birth weight. Healthy People 2000: National Health Promotion and Disease Prevention Objectives, a national strategy for improving the health of the country over the coming decade, addresses the prevention of major chronic diseases, injuries and infectious diseases. It includes over 300 measurable objectives to increase the span of healthy life for Americans, reduce health disparities and achieve access to preventive services for all the people, regardless of race, ethnicity or income. HIV infection is recognized as one of the priorities for health promotion and disease prevention; emphasis is also placed on the reduction of infant mortality among special populations.

532. What was once considered a sexually transmitted disease among a limited segment of the population is currently recognized as an overlapping series of epidemics among all population groups (box 19). The HIV epidemic is expanding most rapidly in communities of colour and among women and adolescents, while most cases remain among homosexual males and intravenous drug users. It is estimated that the number of people living with AIDS will increase from 90,000 in January 1992 to 120,000 by January 1995, due in part to longer survival after diagnosis. Nearly one half of all

BOX 19. AIDS: THE CASE OF THE UNITED STATES OF AMERICA

The United States of America has the largest number of AIDS cases in the world. Of all the AIDS cases reported worldwide, almost half have been in that country. As of April 1993, a cumulative total of 289,320 AIDS cases and 179,748 AIDS-related deaths in the United States were reported to the Centers for Disease Control. These figures are lower than the actual numbers because only about 80 per cent of cases are officially reported to the Centers for Disease Control and because many people that died of HIV-related diseases in the past did not meet earlier definitions of AIDS. More than 90 per cent of those cases were young adults. The price of caring for one person with AIDS in the United States has soared to $38,000 per annum.

HIV infection continues to spread nationwide, with poor inner-city blacks, Hispanics, women, children and intravenous (IV) drug users affected disproportionately. Although homosexual males still account for the majority of AIDS cases reported each year, AIDS is becoming more prominent in the young and in heterosexual men and women; indeed, AIDS is currently one of the three main causes of death for men and women aged 25-44 years and among the top 10 causes of death for children aged 1-4 years. HIV transmission by intravenous drug users sharing drug paraphernalia is increasing, while transmission through contaminated blood transfusion has virtually been eliminated, as has transmission in haemophiliacs receiving blood-clotting factor concentrates.

The Centers for Disease Control estimate that approximately 1 million Americans—1 in every 250 persons—is currently infected with HIV, approximately 1 out of every 100 men and 1 out of every 800 women in the United States. Approximately 40,000 new infections occur each year. HIV infection, which affects persons in early adult life, has become a leading cause of death among young adults.

In its report *Healthy People 2000*, the United States Department of Health and Human Services underscored two important components of HIV prevention: increasing the number of persons that receive HIV counselling and testing; and encouraging the adoption of low- or no-risk behaviour. New therapies have been developed that extend the life of people with AIDS and that slow the progression of HIV infection to AIDS. A serious obstacle to the prevention of the spread of the HIV infection is the failure of infected persons to be tested. Health status objectives include confining the annual incidence of diagnosed AIDS cases to no more than 98,000 cases and the prevalence of HIV infection to no more than 800 per 100,000 people in the year 2000. Risk reduction objectives include: reducing the proportion of adolescents that have engaged in sexual intercourse to no more than 15 per cent by age 15 and no more than 40 per cent by age 17; increasing to at least 50 per cent the proportion of sexually active, unmarried people that used a condom at last sexual intercourse; increasing to at least 50 per cent the estimated proportion of all intravenous drug users that are in drug abuse treatment programmes; increasing to at least 50 per cent the estimated proportion of intravenous drug users that are not in treatment but use only uncontaminated drug paraphernalia; and reducing the risk of HIV infection transmitted by transfusion to no more than 1 per 250,000 units of blood and blood components. Service and protection objectives include: increasing to at least 80 per cent the proportion of HIV-infected people that have been tested for HIV infection; increasing to at least 75 per cent the proportion of providers of primary care and mental health care offering counselling on the prevention of HIV and other sexually transmitted diseases; increasing to at least 95 per cent the proportion of schools with HIV education curricula for students in grades 4-12, preferably as part of quality school health education; providing HIV education for students and staff in at least 90 per cent of colleges and universities; increasing to at least 90 per cent the proportion of cities with a population of over 100,000 that have outreach programmes to contact drug users to deliver HIV risk reduction messages; increasing to at least 50 per cent the proportion of family planning clinics, maternal and child health clinics, sexually transmitted disease clinics, tuberculosis clinics, drug treatment centres and primary health care clinics that screen, diagnose, treat, counsel and provide or refer for partner notification services for HIV infection and bacterial sexually transmitted diseases; and extending to all facilities where workers are at risk for occupational transmission of HIV regulations to protect workers from exposure to blood-borne infections. Health and human services providers should receive training about HIV infection, high-risk behaviour, and infection control measures at least once every three years.

Sources: Antonia Coello Novello, *Surgeon General's Report to the American Public on HIV Infection and Aids* (Washington, D.C., 1992); United States of America, National Commission on Aids, *An Expanding Tragedy: The Final Report of the National Commission on Aids*, (Washington, D.C., 1992); United States of America, Department of Health and Human Services, *Healthy People, 2000* (Washington, D.C., 1990); Department of Health and Human Services, *Strategic Plan to Combat HIV and AIDS in the United States* (Washington, D.C., 1992).

AIDS cases have occurred among African-Americans and Hispanics, even though these groups comprise only 21 per cent of the total United States population. AIDS cases among women increased by 9 per cent between 1991 and 1992, compared with a 2.5 per cent increase among men. During that same period, AIDS cases among adolescents aged 13-19 years increased by 65 per cent.

533. HIV infection is linked to the rapid increase in tuberculosis (see box 20), sexually transmitted diseases, substance abuse, poverty and homelessness. Although the resurgence of tuberculosis has resulted in an immediate threat chiefly to people infected with HIV, there is concern that the spread of the disease from such patients may affect the health workers caring for them and ultimately may affect healthy people that are not infected with HIV.

6. *Oceania*

534. Among the leading causes of death in Oceania are heart disease, malignant neoplasms, accidents and cerebrovascular diseases; some countries also report high incidences of diarrhoeal diseases, intestinal infectious diseases, respira-

BOX 20. TUBERCULOSIS: A KILLER DISEASE MAKES A COMEBACK

Tuberculosis, the killer disease that infiltrates the lungs and then slowly and painfully shuts them down, is one of the most widespread infections. Approximately one third of the world population are at risk of developing the disease. Although this risk is fairly low in healthy people, it is markedly increased for those suffering from such conditions as malnutrition and the human immunodeficiency virus (HIV). In 1990, an estimated 1.7 billion people were infected with tuberculosis, and more than 20 million had active tuberculosis. Approximately 8 million new cases and 3 million deaths occur each year. Of these, 1,300,000 cases and 450,000 deaths occur among children under age 15.

More than 95 per cent of the tuberculosis cases in the world are found in the developing countries; 80 per cent of tuberculosis cases in those countries are found among the economically most productive age groups (15-59 years). It is believed that tuberculosis accounts for over one fourth of avoidable deaths in this age group.

Tuberculosis is kindled by the AIDS epidemic; HIV infection is by far the greatest risk factor for tuberculosis infection to progress to disease; of those infected with both tuberculosis and HIV, at least one third will develop tuberculosis disease. As a result, the number of tuberculosis deaths is increasing rapidly in some parts of the world because of the AIDS epidemic. Since 1985, the incidence of tuberculosis has begun to increase in many sub-Saharan African countries and Caribbean countries, as well as in some developed countries. By the end of 1990, more than 3 million people were infected with both HIV and tuberculosis; of those, 2.4 million were in sub-Saharan African countries. In the developing countries that are most affected by HIV infection, tuberculosis has become a grave problem which has assumed tremendous magnitude: in some areas, the numbers of diagnosed cases of tuberculosis have doubled over the past five years, resulting in increased demand for diagnostic services, drugs and hospital beds, which can barely be met by the existing health-care systems. With the HIV epidemic still on the increase, and because tuberculosis usually develops several years after the HIV infection, the tuberculosis situation will dramatically worsen unless drastic control measures are taken immediately.

In some parts of the more developed regions, tuberculosis has resurged in the inner cities. Those deemed to be at high risk of contracting tuberculosis are people infected with HIV, drug abusers and alcoholics, the homeless, people living and working in close contact with infected people and immigrants from countries where tuberculosis is common. Easily transmitted through the air, the disease has become a serious occupational hazard for health-care workers treating tuberculosis patients, a far more serious threat than the risk of contracting HIV or AIDS at work. The fear of contagion has increased since the appearance of strains of tuberculosis that are resistant to drugs.

In the United States of America, tuberculosis has resurged in a society that had assumed that the disease was gone forever. Although tuberculosis persisted from the 1960s to the 1980s in the poorest sections of large cities, the number of cases had declined steadily to a low of 22,000 in 1985. By 1991, however, almost 27,000 new cases were reported in the country. The American Lung Association estimates that unless steps are taken to curb the trend, the United States will face at least 50,000 new tuberculosis cases per annum within a decade. Of particular concern is the fact that cases among children have increased by 40 per cent.

Sources: Population Policy Data Bank maintained by the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat; Elisabeth Rosenthal, "TB, easily transmitted, adds a peril to medicine", *The New York Times* (13 October 1992), p. A.1; Michael Specter, "Neglected for years, TB is back with strains that are deadlier", *The New York Times* (11 October 1992), p. I.1; World Health Organization, *Global Estimates for Health Situation Assessment and Projections, 1990* (Geneva, 1990); and *Implementation of the Global Strategy for Health for All by the Year 2000: Second Evaluation*; Eighth Report on the World Health Situation (Geneva, 1993).

tory diseases, diabetes and sexually transmitted diseases. In some areas, malaria, tuberculosis, hepatitis, measles and meningitis, as well as perinatal deaths, are also quite common. Some countries also reported AIDS as being a concern. Moreover, many countries are concerned about the unequal access to health care and the resulting unequal health status among the different social and geographical groups.

535. Malaria is a serious problem in a number of the Pacific island countries, including Papua New Guinea, Solomon Islands and Vanuatu. Indeed, Honiara, Solomon Islands, has the highest recorded incidence of malaria in the world; because of repeat cases, it registered 1,120 cases per 1,000 inhabitants. As a preventive measure, health workers distribute mosquito nets doused with insecticide.

536. In Australia, the 1986 report of the Health Targets and Implementation Committee, *Health for All Australians*, and the subsequent development of the National Better Health Programme, have increased emphasis on the promotion of healthy behaviour and healthy environment, as well as on the prevention of disease. The provision of more effective help to disadvantaged groups, including aborigines, Torres Strait Islanders and some recent migrant groups, poses a special challenge. The National Better Health Programme has a number of projects intended to narrow the gap in health status between different social groups, strengthen structural support for primary health care and develop a healthy public policy. The Government of Fiji is undertaking a reorganization of health services, with a strong emphasis on decentralizing the actual running of services to three divisional health offices. Headquarters will be responsible for policy; monitoring and evaluation will take place at both the national and divisional levels. Special effort has gone into assisting the disadvantaged through the health and social welfare programme, separate ministries have been established for women's affairs and youth, and special provisions have been made for the care of the disabled, the mentally ill, the blind and the aged. A reorganization of the curriculum at the Fiji schools of medicine and nursing, and dental training have been geared to meet the needs of the region. The morbidity and mortality pattern continues to change gradually from diarrhoeal and communicable diseases to lifestyle-related and non-communicable diseases: towards diabetes, heart diseases and the harmful effects of smoking, and alcohol and drug abuse. Kiribati introduced a Healthiest Island Award and since then an increasing number of outer islands have become very active in environmental health, sanitation and other health matters. The Marshall Islands are con-

cerned with the mortality level of children under age 5 (prematurity and malnutrition); diarrhoeal diseases remain a major cause of death for infants and children. Diabetes, hypertension and kidney diseases are a major concern of the Government; other health problems of the Marshall Islands include sexually transmitted diseases and AIDS, malnutrition, alcohol abuse and suicide. In order to combat AIDS, the Marshall Islands has established the National AIDS Committee, conducts blood tests from time to time for the urban population, screens blood for HIV before using it in blood transfusions and gives blood tests to visitors. New Zealand is especially concerned about the mortality levels of its Maori and Pacific island populations; diseases of major concern in the country include AIDS, accidents, suicide among those under age 20, cervical cancer and heart disease. Some goals of the Government are to reduce deaths caused by accidents among children aged 1-4 and 5-14 years, to reduce the number of deaths from sudden infant death syndrome and to reduce deaths from cervical cancer. A major focus of health objectives in New Zealand is the reduction of social and ethnic inequalities in health status; for example, the Maori population has one of the highest recorded incidences of lung cancer in the world. To combat AIDS, the Government has undertaken education and awareness programmes to encourage community support and health promotion, a needle exchange programme, and blood and tissue screening. The Government of Papua New Guinea encourages and supports projects that meet basic human needs and improve the quality of life; it is committed to ensuring that primary health care will reach social and geographically disadvantaged and underserved groups. Morbidity and mortality are dominated by diseases deriving from preventable social and environmental conditions. The chief causes of death are infectious diseases; malaria, pneumonia, diarrhoeal diseases, meningitis and perinatal deaths are prevalent. Samoa continues to experience a steady decline in infant mortality rates and a rise in life expectancy; the Expanded Programme of Immunization continues to control common childhood diseases. However, diarrhoeal diseases, upper and lower respiratory tract diseases and sexually transmitted diseases have not decreased to any significant degree. The National Plan of Solomon Islands is to ensure adequate access to health services, especially in remote areas; to reduce morbidity and mortality resulting from both communicable and non-communicable diseases, to improve health surveillance and the health information system and to promote health education with community participation. Tonga is concerned about mortality levels in infants and mothers under age 19; AIDS is also a major concern. The Ministry of Health and other non-governmental organizations have a number of training programmes at schools and in the media to promote greater public awareness of the AIDS problem.

7. *Union of Soviet Socialist Republics (former)*

537. A looming health crisis exists in the Commonwealth of Independent States and the Baltic countries. The health-care system is inadequate and obsolete. Although facilities are reasonably spread out in cities and towns, they are very deficient in the rural areas. Whereas there are sufficient numbers of physicians, they generally have been badly trained in old technology. Currently, there is widespread disruption of equipment and medical supplies, as well as a collapse in production due to shortages of raw materials and hard currency. Health-care systems have experienced tremendous cost escalation. Previously self-sufficient in essential vaccines, the countries in the Commonwealth of Independent States currently lack regular supplies. Although attention is focused on cancer and cardiovascular and degenerative diseases of adults, acute respiratory infections, diarrhoeal diseases, vaccine-preventable diseases, tuberculosis and nutritional deficiencies persist, especially among children. Diabetes mellitus is becoming an urgent problem, which is difficult to treat because of the low quality of domestic insulin. The Russian Federation is concerned about the mortality levels of infants and males in the economically active ages; of particular concern are infant mortality, accidents, poisoning, trauma, chronic illness in children and childhood invalidism. Ukraine is concerned about the mortality levels of infants and children, and of males aged 30-49, as well as those in the early retirement ages. Of additional concern are the after-effects of the Chernobyl nuclear tragedy on both the population and the environment, childhood invalidism, cardiovascular diseases, cancer, diabetes, accidents, poisonings and trauma. Belarus is concerned about infant mortality, cardiovascular diseases and cancer.

538. Diphtheria, which began to increase in the former Soviet Union in the early 1980s, reached its first peak in 1983-1985, when 1,400-1,600 cases were reported per annum, accounting for 87 per cent of all diphtheria cases in Europe, compared with only 14 per cent in 1974. The second wave of the epidemic began in 1990; in the Russian Federation, 1,896 cases and 80 deaths were reported in 1991; the following year, the statistics rose to 3,897 and 125, respectively. In Ukraine, diphtheria cases rose from 1,101 in 1991 to 1,553 in 1992. In the first seven months of 1993, there were 4,685 diphtheria cases in the Russian Federation and 1,462 cases in Ukraine. Moreover, there are signs that the epidemic is spreading to neighbouring countries: in 1993, Azerbaijan reported 28 cases; Belarus, 51; Kazakhstan, 23; Uzbekistan, 25 and Poland, 5.

539. The Governments of the Russian Federation and of Ukraine are aware that the current health situation of their respective populations is adversely affected by the complex economic situations that characterize their difficult transitional periods. The Russian Federation intends to undertake a reform of its social policy and to protect the life and health of its citizens. It also intends to establish a number of large, independent, national scientific centres which would be concerned with the problems of strengthening the health of the population. The Government of Ukraine guarantees the right of citizens to health care; however, the complex economic situation has resulted in a lack of medical supplies, especially of those which are imported.

540. AIDS cases reported to WHO dating from 1979 through the first three months of 1993 include 127 in the Russian Federation and 14 in Ukraine. No other former Soviet republic reported AIDS cases to WHO. In the Russian Federation, criminal sanctions are imposed on anyone who knowingly infects another person with HIV. The Government established a network of specialized centres and laboratories for anonymous AIDS testing and conducts research on the AIDS virus. The Government of Ukraine has established a national programme for the prevention of AIDS and a national committee to fight AIDS, and has adopted rules for the medical testing and identification of the AIDS virus in order to facilitate prevention, treatment, research and record-keeping. Belarus has prepared a national AIDS prevention and surveillance programme; some work is also being done to educate the population concerning AIDS.

541. Environmental health problems are also widely evident. The most dramatic and highly publicized incident was the radiation damage caused by the Chernobyl disaster. The Government of Ukraine is concerned about the abnormally high radioactive levels in the environment and the food supply, and especially local agricultural production. However, even more widespread, but largely undocumented, is the effect on human populations of extensive use of pesticides and fertilizers which have accumulated in soil and ground water. For example, all the main rivers in the Russian Federation show 10-100 times the permitted levels of viral and bacterial presence; over 20 per cent of drinking water does not meet the government standards. Eighty-four towns or cities in the Russian Federation, including Moscow, have more than 10 times the permissible levels of air pollution. Ukraine is concerned about increasing air pollution in industrial cities and increasing soil pollution by chemicals. Moreover, it has been established that the higher levels of morbidity of the population in a number of industrial cities are correlated with air pollution by specific chemicals.

NOTES

[1] For a list of the countries classified as least developed by the General Assembly of the United Nations, see Explanatory notes in this volume.

[2] The area of the former Union of Soviet Socialist Republics currently comprises: (*a*) the three Baltic States (Estonia, Latvia and Lithuania); and (*b*) the 12 republics that have contstituted themselves into the Commonwealth of Independent States (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Republic of Moldova, Russian Federation, Tadjikistan, Turkmenistan, Ukraine and Uzbekistan).

[3] The countries included in the regional divisions used in this chapter do not in all cases conform to those included in the geographical regions established by the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat.

TABLE A.7. ESTIMATES OF LIFE EXPECTANCY AT BIRTH AND INFANT AND CHILD MORTALITY, SELECTED COUNTRIES OF AFRICA, SINCE 1970

Country or area	Reference period	Life expectancy at birth: Both sexes	Life expectancy at birth: Male (years)	Life expectancy at birth: Female	Infant and child mortality: $_1q_0$ (per 1,000 live births)	Infant and child mortality: $_5q_0$ (per 1,000 live births)	Source of data	Method of estimation
Algeria	1969-1971	53	53	53	146	219	1969-1971 survey	C2
	1978	57	56	58	112	153	Civil registration	A2
	1983	62	62	63	80	103	Civil registration	A2
	1985	64	63	64	78	97	Civil registration	A2
	1986-1988	..	..	..	65	..	Civil registration	A2
	1990	..	..	..	58	..	Civil registration	A2
Benin	1972-1976	..	..	..	136	251	1981-1982 WFS	C3
	1977-1981	..	..	..	108	204	1981-1982 WFS	C3
Botswana	1979	..	..	..	81	108	1981 census	B1
	1981	56	52	60	72	114	1981 census	B1,C2
	1984	..	..	..	54	65	1988 DHS	B1
Burkina Faso	1973	..	..	..	157	264	1976 PES	B1
	1981	..	..	..	134	216	1985 census	B1
Burundi	1970-1971	44	43	44	140	268	1970-1971 survey	C1
	1976	..	..	..	129	219	1979 PES	B1
	1977-1987	50	49	51	..	..	1987 DHS	B1,C3
	1987	..	..	..	119	199	1990 census	B1
Cameroon	1973-1978	..	..	..	106	195	1978 WFS	C3
Cape Verde	1971-1975	..	..	..	104	..	Civil registration	A1
	1976-1980	..	..	..	85	..	Civil registration	A1
	1983-1985	..	..	..	68	..	Civil registration	A1
Central African Republic	1970	..	..	..	141	239	1975 census	B1
Comoros[a]	1976	..	..	..	94	154	1980 census	B1
Côte d'Ivoire	1971-1975	..	..	..	148	231	1980-1981 WFS	C3
	1976-1980	..	..	..	113	172	1980-1981 WFS	C3
Egypt	1975-1977	53	52	54	134	215	Civil registration; 1980 WFS; 1984 CPS	A2,B1
	1984-1988	..	..	..	73	102	1988 DHS	C3
Gambia	1970	33	32	34	194	341	1973 census	B1
	1978	..	..	..	150	249	1983 census	B1
Ghana	1978-1982	..	..	..	86	152	1988 DHS	C3
	1983-1987	..	..	..	77	155	1988 DHS	C3
Kenya	1970	..	..	..	100	164	1979 census	B1
	1975	56	..	..	93	151	1979 census	B1,B2
	1984-1989	..	..	..	60	89	1989 DHS	C3
Lesotho	1975	50	46	55	126	174	1977 WFS	C2,C3
Liberia	1976-1980	..	..	..	164	243	1986 DHS	C3
	1981-1986	..	..	..	144	220	1986 DHS	C3
Malawi	1974	..	..	..	187	328	1977 census	B1
	1978	42	40	43	160	269	1982 survey	B1
	1979	..	..	..	152	255	1984 survey	B1
Mali	1977-1981	..	..	..	156	311	1987 DHS	C3
	1982-1986	..	..	..	108	249	1987 DHS	C3
Mauritania	1975	..	..	..	130	220	1981-1982 WFS; 1977 census	B1,C3
Mauritius[b]	1971-1973	63	61	66	59	82	Civil registration	A1
	1980	66	63	71	32	41	Civil registration	A1
	1983	68	64	72	26	31	Civil registration	A1
	1984-1986	68	64	72	25	28	Civil registration	A1
	1986-1988	68	65	72	23	28	Civil registration	A1
	1988-1990	69	65	73	20	24	Civil registration	A1
	1991	..	..	..	18	..	Civil registration	A1
Morocco	1972	52	52	53	123	196	1972-1973 survey	C1
	1976	..	..	..	115	177	1979-1980 WFS	B1
	1979	..	..	..	110	165	1982 census	B1
	1980	59	58	60	91	138	Civil registration	A2,B1
	1984	..	..	..	92	130	1987 DHS	B1

TABLE A.7 *(continued)*

Country or area	Reference period	Life expectancy at birth			Infant and child mortality		Source of data	Method of estimation
		Both sexes	Male	Female	$_1q_0$	$_5q_0$		
		(years)			(per 1,000 live births)			
Mozambique	1975	..	..	..	164	281	1980 census	B1
Nigeria	1981-1985	..	..	..	96	189	1990 DHS	C3
	1986-1990	..	..	..	87	192	1990 DHS	C3
Réunion	1970	62	58	66	57	72	Civil registration	A2
	1980-1983	69	65	74	13	16	Civil registration	A1
	1986-1987	..	..	..	10	..	Civil registration	A1
	1988-1989	..	..	..	7	..	Civil registration	A1
Rwanda	1975	..	..	..	139	235	1978 census	B1
	1979	..	..	..	129	218	1983 survey	B1
Sao Tome and Principe	1977	..	..	..	80	112	1981 census	B1
	1986-1988	..	..	..	68	..	Civil registration	A1
	1989	..	..	..	72	..	Civil registration	A1
Senegal	1970-1971	44	43	44-45	..	..	1970-1971 survey	C1
	1968-1973	..	..	..	122	283	1978 WFS	C3
	1973-1978	..	..	..	112	262	1978 WFS	C3
	1976-1980	..	..	..	96	236	1986 DHS	C3
	1981-1985	..	..	..	86	191	1986 DHS	C3
Seychelles	1974-1978	68	65	71	35	50	Civil registration	A1
	1981-1985	70	65	74	18	22	Civil registration	A1
	1985-1988	69	65	74	18	22	Civil registration	A1
	1989-1990	..	..	..	16	..	Civil registration	A1
Sierra Leone	1971	..	..	..	206	364	1974 census	B1
	1981	..	..	..	191	334	1985 census	B1
South Africa	1970	54	51	56	118	166	Civil registration	A2
	1975-1980	59	56	63	78	..	1975 and 1980 censuses	B2
	1980-1985	61	57	65	68	..	1980 and 1985 censuses	B2
Swaziland	1966-1976	46	43	50	156	225	1966 and 1976 censuses	B1,B2
	1976-1986	56	53	60	98	141	1976 and 1986 censuses	B1,B2
Togo	1978-1982	..	..	..	87	159	1988 DHS	C3
	1983-1988	..	..	..	81	158	1988 DHS	C3
Tunisia	1972	..	..	..	130	192	1975 census	B1
	1981	..	..	..	74	102	1984 census	B1
	1983-1987	..	..	..	50	65	1988 DHS	C3
Uganda	1978-1982	..	..	..	114	200	1988-1989 DHS	C3
	1983-1988	..	..	..	101	180	1988-1989 DHS	C3
United Republic of Tanzania	1974	46	..	..	129	218	1973 survey; 1978 census	B1
Zaire[c]	1972	..	..	..	118	199	1975-1977 survey	B1
	1981	47	..	..	125	198	1984 census	B1
Zambia	1970	..	..	..	105	173	1974 census	B1
	1976	..	..	..	97	159	1980 census	B1
	1987-1992	..	..	..	108	192	1992 DHS	C3
Zimbabwe	1971	..	..	..	91	147	1982 census	B1
	1978	..	..	..	84	135	1982 census	B1
	1980	..	..	..	83	133	1984 survey	B1
	1983	..	..	..	65	100	1987 survey	B1
	1986	..	..	..	59	91	1988 DHS	B1

Sources: The list of sources follows the table notes.

NOTES: The codes for the methods of estimation are as follows:

A1: based on complete vital registration data and census;

A2: based on vital registration and census with appropriate adjustment for net underregistration of vital events;

B1: based on census or survey questions on survivorship of kin;

B2: based on intercensal survival technique;

C1: based on follow-up questions in a multi-round survey;

C2: on direct retrospective questions (deaths in previous *n* months) from census or survey;

C3: based on maternity histories.

The following abbreviations have been used: CPS: Contraceptive Prevalence Survey; DHS: Demographic and Health Survey; PES: Post-enumeration survey; WFS: World Fertility Survey.

[a]Excluding the island of Mayotte.

[b]Data refer to the island of Mauritius only.

[c]Data for 1972 refer to West Zaire only.

Sources: Unless otherwise indicated, estimates were made by the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat, using data made available by the countries to the United Nations Statistical Division. The sources given below are listed alphabetically by country and in chronological order within each country.

Algeria: *1969-1971: Age Structure of Mortality in Developing Countries: A Data Base for Cross-sectional and Time Series Research* (United Nations publication, ST/ESA/SER.R/66); *1978: Annuaire statistique de l'Algerie, 1979* (Algiers, n.d.), p. 57; *1983: Annuaire statistique de l'Algerie 1983-1984* (Algiers, n.d.), pp. 29-30; *1985: Annuaire statistique de l'Algerie, 1985-1986* (Algiers, n.d.).

Benin: Shea Oscar Rutstein, *Infant and Child Mortality: Levels, Trends and Demographic Differentials*, rev. ed., World Fertility Survey Comparative Studies: Cross-national Summaries, No. 43 (Voorburg, Netherlands, International Statistical Institute, 1984).

Botswana: *1979, 1984: Child Mortality Since the 1960s: A Database for Developing Countries* (United Nations publication, Sales No. E.92.XIII.10), pp. 53-54; *1981: Republic of Botswana, 1981 Population and Housing Census: Analytical Report* (Gaborone, Central Statistical Office, 1987).

Burkina Faso: *1973: Child Mortality Since the 1960s: A Database for Developing Countries* (United Nations publication, Sales No. E.92.XIII.10), p. 63.

Burundi: *1970-1971: Age Structure of Mortality in Developing Countries: A Data Base for Cross-sectional and Time Series Research* (United Nations publication, ST/ESA/SER.R/66); *1976: Child Mortality Since the 1960s: A Database for Developing Countries* (United Nations publication, Sales No. E.92.XIII.10), p. 67; *1977-1987*: Carolyn Makinson, "Estimates of adult mortality in Burundi", n.d. (unpublished manuscript).

Cameroon: Shea Oscar Rutstein, *Infant and Child Mortality: Levels, Trends and Demographic Differentials*, rev. ed., World Fertility Survey Comparative Studies: Cross-national Summaries, No. 43 (Voorburg, Netherlands, International Statistical Institute, 1984).

Côte d'Ivoire: Shea Oscar Rutstein, *Infant and Child Mortality: Levels, Trends and Demographic Differentials*, rev. ed., World Fertility Survey Comparative Studies: Cross-national Summaries, No. 43 (Voorburg, Netherlands, International Statistical Institute, 1984).

Egypt: *1984-1988*: Hussein Abdel-Aziz Sayed and others, *Egypt Demographic and Health Survey, 1988* (Cairo, Egypt National Population Council; and Columbia, Maryland, Institute for Resource Development/ Macro Systems, Inc., 1989), table 8.3.

Gambia: *1970*: for life expectancy at birth, *Population Census 1973, Statistics for Local Government Areas and Districts*, vol. III, *General Report* (Banjul, Ministry of Economic Planning and Development, Central Bureau of Statistics Division, 1976), pp. 57-61.

Ghana: *1978-1982, 1983-1987: Ghana Demographic and Health Survey, 1988* (Accra, Ghana Statistical Service; and Columbia, Maryland, Institute for Resource Development/Macro Systems, Inc., 1989), table 6.3.

Kenya: *1970, 1975: Child Mortality Since the 1960s: A Database for Developing Countries* (United Nations publication, Sales No. E.92.XIII.10), p. 184; *1975*: for life expectancy at birth, Douglas C. Ewbank, "A re-evaluation of levels and trends of mortality in East Africa", *Population Bulletin of the United Nations*, No. 18 (United Nations publication, Sales No. E.85.XIII.6), pp. 41-48; *1984-1989: Kenya Demographic and Health Survey, 1989* (Nairobi, Ministry of Home Affairs and National Heritage, National Council for Population and Development; and Columbia, Maryland, Institute for Resource Development/Macro Systems, Inc., 1989), table 6.1.

Lesotho: Ian Timæus, *Mortality in Lesotho: A Study of Levels, Trends and Differentials Based on Retrospective Survey Data*, World Fertility Survey Scientific Report, No. 59 (Voorburg, Netherlands, International Statistical Institute, 1984), table 3.

Liberia: Dorothy Chieh-Johnson and others, *Liberia Demographic and Health Survey, 1986* (Monrovia, Liberia, Ministry of Planning and Economic Affairs, Bureau of Statistics; and Columbia, Maryland, Institute for Resource Development/Westinghouse, 1988), table 6.1.

Malawi: *1978: Malawi Demographic Survey, 1982* (Zomba, National Statistical Office, 1987); *1974, 1979: Child Mortality Since the 1960s: A Database for Developing Countries* (United Nations publication, Sales No. E.92.XIII.10), pp. 212-213.

Mali: Baba Traoré, Mamadou Konaté and Cynthia Stanton, *Enquête démographique et de santé au Mali, 1987* (Bamako, Institut du Sahel, Centre d'études et de recherches sur la population pour le développement; and Columbia, Maryland, Institute for Resource Development/ Westinghouse, 1989), table 6.1.

Mauritania: For the weighted average of the direct estimate for sedentary population, World Fertility Survey report of 1981-1982; and for the indirect estimate for nomads, 1977 census.

Morocco: *1972: Age Structure of Mortality in Developing Countries: A Data Base for Cross-sectional and Time Series Research* (United Nations publication, ST/ESA/SER.R/66); *1980: Niveaux récents de la mortalité au Maroc: les tables de mortalité* (Rabat, Centre d'études et de recherches, 1985); *1976, 1979, 1984: Child Mortality Since the 1960s: A Database for Developing Countries* (United Nations publication, Sales No. E.92.XIII.10), pp. 232-234.

Nigeria: *Nigeria Demographic and Health Survey, 1990* (Lagos, Federal Office of Statistics; and Colombia, Maryland, Institute for Resource Development/Macro International, Inc., 1992), table 7.1.

Rwanda: *Child Mortality Since the 1960s: A Database for Developing Countries* (United Nations publication, Sales No. E.92.XIII.10), pp. 291-292.

Senegal: *1970-1971*: for life expectancy at birth, United States of America, Department of Commerce, Bureau of the Census, *World Population 1985: Recent Demographic Estimates for the Countries and Regions of the World* (Washington, D.C.); *1968-1973, 1973-1978*: Shea Oscar Rutstein, *Infant and Child Mortality: Levels, Trends and Demographic Differentials*, rev. ed., World Fertility Survey Comparative Studies, Cross-national Summaries, No. 43 (Voorburg, Netherlands, International Statistical Institute, 1984); *1976-1980, 1981-1985*: Salif Ndiaye, Ibrahima Sarr and Mohamed Ayad, *Enquête démographique et de santé au Sénégal, 1986* (Dakar, Division des enquêtes et de la démographie, Direction de la statistique, Ministère de l'economie et des finances; and Columbia, Maryland, Institute for Resource Development/Westinghouse, 1988), table 6.3.

South Africa: *1970*: Peter D. Johnson and Paul R. Campbell, *Detailed Statistics on the Population of South Africa, by Race and Urban/Rural Residence: 1950 to 2010* (Washington, D.C., Department of Commerce, Bureau of the Census, International Demographic Data Center, 1982), table 11; *1975-1980, 1980-1985*: J. L. Sadie, *A Reconstruction and Projection of Demographic Movements in the RSA and TBVC Countries*, Research Report No. 148 (Pretoria, Bureau of Market Research, University of South Africa, 1988); *1975-1980, 1980-1985*: life expectancies at birth and infant mortality rates are weighted average of rates for different ethnic groups.

Swaziland: *1966-1976: Report on the 1976 Swaziland Population Census*, vol. 1, *Analytical Reports* (Mbabane, Central Statistical Office, 1980); *1976-1986*: J. G. C. Blacker, *Fertility, Mortality and Population Growth in Swaziland: Report on an Advisory Mission to the Central Statistical Office* (Mbabane, 1990).

Togo: *1978-1982, 1983-1988*: Akoua Agounké, Mensan Assogba and Kodjo Anipah, *Enquête démographique et de santé au Togo, 1988* (Lomé, Direction générale de la santé, Direction de la statistique, Unité de recherche démographique; and Columbia, Maryland, Institute for Resource Development/Macro Systems, Inc., 1989), table 6.1.

Tunisia: *1972, 1981: Child Mortality Since the 1960s: A Database for Developing Countries* (United Nations publication, Sales No. E.92.XIII.10), pp. 335-336; *1983-1987*: Touhami Aloui, Mohamed Ayad and Habib Fourati, *Enquête démographique et de santé en Tunisie, 1988* (Tunis, Direction de la population, Office national de la famille et de la population; and Columbia, Maryland, Institute for Resource Development/ Macro Systems, Inc., 1989), table 8.2.

Uganda: Emmanuel M. Kaijuka and others, *Uganda Demographic and Health Survey, 1988/1989* (Entebbe, Ministry of Health in collaboration with Ministry of Planning and Economic Development; Department of Geography, Makerere University; Institute of Statistics and Applied Economics, Makerere University; and Columbia, Maryland, Institute for Resource Development/Macro Systems, Inc., 1989), table 6.1.

United Republic of Tanzania: *1974*: for life expectancy at birth, Douglas C. Ewbank, "A re-evaluation of levels and trends of mortality in East Africa", *Population Bulletin of the United Nations*, No. 18 (United Nations publication, Sales No. E.85.XIII.6), pp. 41-48.

Zaire: *1981*: for life expectancy at birth, Miriam Schneidman, *Mortality and Fertility Trends in Zaire*, Internal Discussion Paper, Africa Regional Series (Washington, D.C., The World Bank, 1990).

Zambia: *Child Mortality Since the 1960s: A Database for Developing Countries* (United Nations publication, Sales No. E.92.XIII.10), pp. 373-374; *Zambia Demographic and Health Survey, 1992: Preliminary Report* (University of Zambia, Central Statistical Office; and Institute for Resource Development/Macro International Inc., 1992), table 12.

Zimbabwe: *Child Mortality Since the 1960s: A Database for Developing Countries* (United Nations publication, Sales No. E.92.XIII.10), pp. 377-379.

TABLE A.8. ESTIMATES OF LIFE EXPECTANCY AT BIRTH AND INFANT AND CHILD MORTALITY, SELECTED COUNTRIES OF ASIA AND OCEANIA, SINCE 1970

Country or area	Reference period	Life expectancy at birth			Infant and child mortality		Source of data	Method of estimation
		Both sexes	Male	Female	$_1q_0$	$_5q_0$		
			(years)		(per 1,000 live births)			
			A. *Asia*					
Afghanistan[a]	1979	41	42	40	181	272	1979 census	C2
Bahrain	1972	..	..	..	52	68	1981 census	B1
	1977	..	..	..	43	54	1981 census	B1
	1986-1988	..	..	..	20	..	Civil registration	A1
	1989-1990	..	..	..	20	..	Civil registration	A1
Bangladesh	1972-1976	..	..	..	135	222	1975-1976 WFS	C3
	1974-1981	48	49	47	..	..	1974 and 1981 censuses	B2
	1979-1983	..	..	..	132	187	1989 survey	C3
	1981	51	51	50	130	208	Sample registration	C1
	1987	56	57	56	113	160	Sample registration	C1
Brunei Darussalam	1970-1972	62	62	62	54	72	Civil registration	A1
	1981	71	70	73	15	20	Civil registration	A1
	1984-1986	..	..	..	10	..	Civil registration	A1
	1987-1989	..	..	..	8	..	Civil registration	A1
China[b]	1981	68	66	69	54	72	1982 census	C2,B1
	1986	67	66	68	40	51	1990 census and 1987 survey	B1,C3
Cyprus	1973	71	70	73	28	32	Civil registration	A2
	1976-1977	73	72	75	23	25	Civil registration	A2
	1978-1982	75	72	77	13	15	Civil registration	A2
	1983-1985	..	..	..	13	..	Civil registration	A1
	1986-1989	..	..	..	11	..	Civil registration	A1
Hong Kong[c]	1970-1972	71	67	75	20	32	Civil registration	A1
	1976	73	70	77	14	17	Civil registration	A1
	1981	75	72	78	10	12	Civil registration	A1
	1987-1989	77	74	80	7	9	Civil registration	A1
India	1971-1976	48	48	47	133	219	Sample registration	C1
	1981-1983	53	53	53	107	165	Sample registration	C1
	1985-1986	..	..	..	97	..	Sample registration	C1
	1987	..	..	..	95	..	Sample registration	C1
	1988	..	..	..	94	..	Sample registration	C1
Indonesia	1971-1976	..	..	..	95	159	1976 WFS	C3
	1976	..	..	..	95	154	1980 census	B1
	1971-1980	50-53	..	..	..	..	1971 and 1980 censuses	B2
	1982-1987	..	..	..	70	101	1987 DHS	C3
Iran (Islamic Republic of)	1973-1976	57	57	57	124	182	1973-1976 survey	C1
	1984	..	..	..	70	99	1986 census	B1
Iraq	1970	..	..	..	84	119	1974 survey	B1
	1983	..	..	..	69	96	1987 survey	B1
	1986	..	..	..	52	68	1990 survey	B1
Israel[d]	1971-1973	72	70	74	21	25	Civil registration	A1
	1983	75	73	76	14	17	Civil registration	A1
	1986-1988	75	74	77	11	13	Civil registration	A1
	1989	..	..	..	10	..	Civil registration	A1
Jordan[e]	1972	..	..	..	74	103	1976 WFS	B1
	1978	..	..	..	62	83	1981 survey	B1
	1979	66-68	66	66-69	..	..	1981 survey; Civil registration	A2
	1984	..	..	..	47	61	1988 survey	B1
	1986-1990	..	..	..	34	39	1990 DHS	C3
Kuwait	1974-1976	68	66	70	45	55	Civil registration	A1
	1979-1981	71	69	73	28	32	Civil registration	A1
	1984-1986	72	70	75	19	22	Civil registration	A1
	1986	..	..	..	16	..	Civil registration	A1
Malaysia (Peninsular)	1969-1971	64	62	66	42	60	Civil registration	A2
	1979-1981	68	66	70	26	35	Civil registration	A2
	1983-1985	70	68	73	18	25	Civil registration	A1
	1986-1988	71	69	73	15	19	Civil registration	A1
	1989	71	69	73	13	17	Civil registration	A1
	1990	72	69	74	12	16	Civil registration	A1

TABLE A.8 *(continued)*

Country or area	Reference period	Life expectancy at birth: Both sexes	Life expectancy at birth: Male (years)	Life expectancy at birth: Female	Infant and child mortality: $_1q_0$ (per 1,000 live births)	Infant and child mortality: $_5q_0$ (per 1,000 live births)	Source of data	Method of estimation
Maldives	1973	..	..	..	150	224	1977 census	B1
	1980	..	..	..	113	165	1985 census	B1
	1985	61	62	59	66	97	Civil registration	A1
	1986-1988	..	..	..	52	..	Civil registration	A1
Myanmar	1975	..	..	..	108	157	1983 census	B1
	1981	..	..	..	90	128	1983 census	B1
Nepal	1971-1976	..	..	..	142	235	1976 WFS	C3
	1974-1976	43	45	42	150	242	1974-1975 and 1976 survey	C1
	1981	50	51	48	115	167	1971 and 1981 censuses and 1986 survey	B2,B1
					..	..		
Oman	1982	..	..	..	55	74	1986 survey	B1
	1985	..	..	..	45	59	1986 survey	B1
Pakistan[f]	1968-1971	52	53	50	141	209	1968, 1969, and 1971 surveys	C1
	1970-1975	..	..	..	139	207	1975 WFS	C3
	1972-1981	53	53	53	131	202	1972 and 1981 censuses	B2
	1984-1988	60	59	61	111	142	1984-1988 survey	C1
Philippines	1969-1971	60	58	63	76	114	Civil registration	A2
	1979-1981	62	58	66	57	81	Civil registration	A2
	1987-1989	64	62	66	53	70	Civil registration	A2
Republic of Korea	1971-1975	63	59	66	38	48	Civil registration; 1974 survey	A2,B1
	1978-1979	66	63	69	36	49	1978-1979 survey	C1
	1988-1989	71	67	75	11	15	Civil registration	A2
Saudi Arabia	1983	..	..	..	51	61	1987 survey	B1
Singapore	1969-1971	69	66	72	20	26	Civil registration	A1
	1979-1981	72	69	74	12	15	Civil registration	A1
	1984-1986	73	70	76	9	11	Civil registration	A1
	1988	74	72	76	8	9	Civil registration	A1
	1989	..	..	..	7	..	Civil registration	A1
Sri Lanka	1970-1972	65	63	66	55	77	Civil registration	A2
	1980-1981	69	67	71	38	50	Civil registration	A2
	1982-1987	..	..	..	25	35	1987 DHS	C3
	1987-1988	..	..	..	22	..	Civil registration	A1
Syrian Arab Republic	1972	..	..	..	82	116	1976 sample census	B1
	1976-1978	63	63	63	67	92	1976-1978 survey and 1981 census	C1,B1
	1986	..	..	..	44	56	1990 survey	B1
Thailand	1969-1971	59	57	61	70	105	Civil registration	A2
	1974-1976	61	58	64	52	81	1974-1976 survey	C1
	1979-1981	63	60	66	51	68	Civil registration	A2
	1985-1986	66	64	69	41	47	1985-1986 survey	C1
	1989	..	..	..	39	44	1989 survey	C1
Turkey	1970-1980	57	56	58	..	..	1970 and 1980 censuses	B2
	1971	..	..	..	149	200	1975 census	B1
	1973-1978	..	..	..	133	166	1978 WFS	C3
	1976	..	..	..	125	166	1980 census	B1
	1981	..	..	..	108	141	1985 census	B1
	1985-1987	..	..	..	82	98	1988 survey	C3
	1989	64	63	66	68	83	1989 survey	C2
United Arab Emirates	1971	..	..	..	63	86	1975 census	B1
	1975	..	..	..	35	43	1980 census	B1
	1984	..	..	..	28	33	1987 survey	B1
Viet Nam	1988-1989	65	63	68	44	67	1989 census	C2
Yemen[g]	1970-1974	..	..	..	168	275	1979 WFS	C3
	1975-1979	..	..	..	162	237	1979 WFS	C3

TABLE A.8 *(continued)*

Region and country or area	Reference period	Life expectancy at birth: Both sexes	Life expectancy at birth: Male (years)	Life expectancy at birth: Female (years)	Infant and child mortality: $_1q_0$ (per 1,000 live births)	Infant and child mortality: $_5q_0$ (per 1,000 live births)	Source of data	Method of estimation
			B. *Oceania*					
Fiji	1973	62	60	63	43	55	1976 census	B1
	1982	63	61	65	30	36	1986 census	B1
	1986	..	..	..	21	..	Civil registration	A1
Guam	1976	..	..	..	18	21	1980 census	B1
	1979-1981	73	70	76	13	15	Civil registration	A1
	1985-1987	..	..	..	11	..	Civil registration	A1
Kiribati	1975	52	50	55	102	147	1978 census	B1
	1981	53	51	56	87	123	1985 census	B1
Marshall Islands	1980-1984	..	..	..	60	..	Civil registration	A2
	1986-1989	..	..	..	41	..	Civil registration	A2
Papua New Guinea	1976	..	..	..	70	96	1980 census	B1
Samoa	1973	63	61	64	43	54	1976 census	B1
	1979	..	..	..	33	40	1981 census	B1

Sources: The list of sources follows the table notes.

NOTES: The codes for the methods of estimation are as follows:

A1: based on complete vital registration data and census;

A2: based on vital registration and census with appropriate adjustment for net underregistration of vital events;

B1: based on census or survey questions on survivorship of kin;

B2: based on intercensal survival technique;

C1: based on follow-up questions in a multi-round survey;

C2: based on direct retrospective questions (deaths in previous *n* months) from census or survey;

C3: based on maternity histories.

The following abbreviations have been used: DHS: Demographic and Health Survey; WFS: World Fertility Survey.

[a]Survey was limited to the settled population.

[b]Excluding Taiwan Province of China.

[c]Excluding Vietnamese refugees.

[d]Including data for East Jerusalem and Israeli residents in certain other territories under occupation since June 1967 Israeli military forces.

[e]Data refer to the East Bank only.

[f]Excluding Jammu and Kashmir, the final status of which has not yet been determined.

[g]Data for periods prior to 22 May 1990 refer to the former Republic of Yemen and do not include data for the former Democratic Yemen.

Sources: Unless otherwise indicated, estimates were made by the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat, using data made available by the countries to the United Nations Statistical Division. The sources given below are listed alphabetically by country and in chronological order within each country.

Afghanistan: *1979*: *Preliminary Results of the First Afghan Population Census* (Kabul, Central Statistics Office, 1981).

Bangladesh: *1972-1976*: Shea Oscar Rutstein, *Infant and Child Mortality: Levels, Trends and Devemographic Differentials*, rev. ed., World Fertility Survey Comparative Studies, Cross-national Summaries, No. 43 (Voorburg, Netherlands, International Statistical Institute, 1984); *1979-1983*: Najmul Huq and John Cleland, *Bangladesh Fertility Survey, 1989: Main Report* (Dhaka, Ministry of Health and Family Planning, n.d.), p. 115, table 10.3; *1981*: *Age Structure of Mortality in Developing Countries: A Data Base for Cross-sectional and Time Series Research* (United Nations publication, Sales No. E.92.XIII.10).

China: *1980*: for infant and child mortality, *Child Mortality Since the 1960s: A Database for Developing Countries* (United Nations publication, Sales No. E.92.XIII.10); *1981*: for life expectancy at birth, Jiang Zheng-hua, Zhang Wei-min and Zhu Li-wei,"The preliminary study to the life expectancy at birth for China's population", paper presented to the International Seminar on China's 1982 Population Census, Beijing, 30 March 1984; *1986*: for life expectancy, Yu, Yeun-Chung, "Mortality indices from 1988 Survey on Fertility and Contraception", paper presented at the International Seminar on Fertility and Contraception, Beijing, China, 26-29 August 1991; for infant and child mortality, *Child Mortality Since the 1960s*.

Cyprus: *1973*: Cyprus, Ministry of Finance, Department of Statistics and Research, *Demographic Report, 1976* (Nicosia, 1977), tables 41-42; *1976-1977*: *Demographic Report, 1980* (Nicosia, 1981), tables 44-45; *1978-1982*: *Demographic Report, 1984*, Population Statistics Series II-22 (Nicosia, 1985), tables 48-49.

Fiji: *1973*: for life expectancy at birth, F.H.A.G. Zwart, *Report on the Census of the Population, 1976*, vol. II, *Demographic Characteristics* (Suva, Parliament of Fiji, 1979); *1982*: for life expectancy at birth, Bureau of Statistics, *Report on Fiji Population Census 1986: Analytic Report on the Demographic, Social and Economic Characteristics of the Population* (Suva, 1989).

Hong Kong: *1970-1972, 1976, 1981*: *Age Structure of Mortality in Developing Countries: A Data Base for Cross-sectional and Time Series Research* (United Nations publication, ST/ESA/SER.R/66).

India: *1971-1976*: *Age Structure of Mortality in Developing Countries: A Data Base for Cross-sectional and Time Series Research* (United Nations publication, ST/ESA/SER.R/66).

Indonesia: *1971-1976*: Shea Oscar Rutstein, *Infant and Child Mortality: Levels, Trends and Demographic Differentials*, rev. ed., World Fertility Comparative Studies, Cross-national Summaries, No. 43 (Voorburg, Netherlands, International Statistical Institute, 1984); *1982-1987*: *National Indonesia Contraceptive Prevalence Survey, 1987* (Jakarta, Central Bureau of Statistics, National Family Planning Coordinating Board; and Columbia, Maryland, Institute for Resource Development/Westinghouse, 1989), table 8.1.

Iran (Islamic Republic of): *1973-1976*: *Age Structure of Mortality in Developing Countries: A Data Base for Cross-sectional and Time Series Research* (United Nations publication, ST/ESA/SER.R/66); *1984*: *Child Mortality Since the 1960s: A Database for Developing Countries* (United Nations publication, Sales No. E.92.XIII.10), p. 164.

Iraq: *Child Mortality Since the 1960s: A Database for Developing Countries* (United Nations publication, Sales No. E.92.XIII.10), pp. 167-168.

Israel: *1971-1973*: *Age Structure of Mortality in Developing Countries: A Data Base for Cross-sectional and Time Series Research* (United Nations publication, ST/ESA/SER.R/66).

Jordan: *1979*: for life expectancy at birth, United States Department of Commerce, Bureau of the Census, *World Population 1985: Recent Demographic Estimates for the Countries and Regions of the World*, ISP-WP 85 (Washington, D.C.); *1972, 1978, 1984*: *Child Mortality Since the 1960s: A Database for Developing Countries* (United Nations publication, Sales No. E.92.XIII.10), pp. 179-180; *1986-1990*: Abdallah Abdel Aziz Zoúbi, Sri Poedjastoeti and Mohamed Ayad, *Jordan Population and Family Health Survey, 1990* (Amman, Department of Statistics and Ministry of Health; Columbia, Maryland, Institute for Resource Development/Macro International, Inc., 1992), p. 77, table 7.1.

Kiribati: For life expectancies at birth, estimates provided by Heather Booth of the South Pacific Commission, Noamea, New Caledonia.

Kuwait: *1974-1976, 1979-1981*: *Age Structure of Mortality in Developing Countries: A Data Base for Cross-sectional and Time Series Research* (United Nations publication, ST/ESA/SER.R/66).

Malaysia (Peninsular): *1969-1971*: *Age Structure of Mortality in Developing Countries: A Data Base for Cross-sectional and Time Series Research* (United Nations publication, ST/ESA/SER.R/66).

Nepal: *1971-1976*: Shea Oscar Rutstein, *Infant and Child Mortality: Levels, Trends and Demographic Differentials*, rev. ed., World Fertility Survey Comparative Studies, Cross-national Summaries, No. 43 (Voorburg, Netherlands, International Statistical Institute, 1984); *1974-1976*: *Age Structure of Mortality in Developing Countries: A Data Base for Cross-sectional and Time Series Research* (United Nations publication, ST/ESA/SER.R/66); *1981*: *Population Monograph of Nepal* (Kathmandu,

Central Bureau of Statistics, 1987); *1981: Nepal Fertility and Family Planning Survey Report, 1986* (Kathmandu, Ministry of Health, Nepal Family Planning and Maternal and Child Health Project,1987).

Oman: Official correspondence from the Ministry of Health, 7 January 1989.

Pakistan: *1968-1971: Age Structure of Mortality in Developing Countries: A Data Base for Cross-sectional and Time Series Research* (United Nations publication, ST/ESA/SER.R/66); *1970-1975*: Shea Oscar Rutstein, *Infant and Child Mortality: Levels, Trends and Demographic Differentials*, rev. ed., World Fertility Survey Comparative Studies, Cross-national Summaries, No. 43 (Voorburg, Netherlands, International Statistical Institute, 1984); *1972-1981*: J. G. C. Blacker, *Population Growth in Pakistan* (London, London School of Hygiene and Tropical Medicine, Center for Population Studies, 1985); *1984-1988*: personal communication with J. G. C. Blacker.

Papua New Guinea: *1976*: for life expectancy at birth, M. L. Bakker, *Populations of the South Pacific: An Overview of Demographic Levels, Patterns and Trends* (Suva, University of the South Pacific, 1990).

Philippines: *1969-1971: Age Structure of Mortality in Developing Countries: A Data Base for Cross-sectional and Time Series Research* (United Nations publication, ST/ESA/SER.R/66).

Republic of Korea: *1971-1975: Age Structure of Mortality in Developing Countries: A Data Base for Cross-sectional and Time Series Research* (United Nations publication, ST/ESA/SER.R/66); *1978-1979*: *The Life Tables of Korea, 1978-1979* (Seoul, National Bureau of Statistics, 1982); *1988-1989*: Il-Hyun and others, "Life table construction based on the recent vital registration data (in Korean)." *The Journal of the Population Association of Korea* (Seoul), vol. 23, No. 1 (1990), pp. 3-25.

Samoa: *1973*: for life expectancy at birth, M. L., Bakker, *Populations of the South Pacific: An Overview of Demographic Levels, Patterns and Trends* (Suva, University of the South Pacific, 1990).

Singapore: *1969-1971, 1979-1981: Age Structure of Mortality in Developing Countries: A Data Base for Cross-sectional and Time Series Research* (United Nations publication, ST/ESA/SER.R/66).

Sri Lanka: *1982-1987: Sri Lanka Demographic and Health Survey, 1987* (Colombo, Ministry of Plan Implementation, Department of Census and Statistics; and Columbia, Maryland, Institute for Resource Development/Westinghouse, 1988), table 6.1.

Syrian Arab Republic: *1976-1978: Age Structure of Mortality in Developing Countries: A Data Base for Cross-sectional and Time Series Research* (United Nations publication, ST/ESA/SER.R/66); and *Infant and Childhood Mortality in Western Asia* (Baghdad, Economic and Social Commission for Western Asia, 1989); *1986: Child Mortality Since the 1960s: A Database for Developing Countries* (United Nations publication, Sales No. E.92.XIII.10), p. 315.

Thailand: *1969-1971: Age Structure of Mortality in Developing Countries: A Data Base for Cross-sectional and Time Series Research* (United Nations publication, ST/ESA/SER.R/66); *1974-1976, 1985-1986, 1989*: *The Survey of Population Change, 1974-1976, 1985-1986*, and *1989* (Bangkok, Office of the Prime Minister, National Statistical Office, 1978, 1988 and n.d.).

Turkey: *1973-1978*: Shea Oscar Rutstein, *Infant and Child Mortality: Levels, Trends and Demographic Differentials*, rev. ed., World Fertility Survey Comparative Studies, Cross-national Summaries, No. 43 (Voorburg, Netherlands, International Statistical Institute, 1984); *1985-1987*: Institute of Population Studies, *1988 Turkish Population and Health Survey* (Ankara, Hacettepe University, 1989); *1989: 1989 Turkish Demographic Survey* (Ankara, Prime Ministry, State Institute of Statistics, 1991).

Viet Nam: *Viet Nam Population Census, 1989: Detailed Analysis of Sample Results* (Hanoi, General Statistical Office, 1991).

Yemen: Shea Oscar Rutstein, *Infant and Child Mortality: Levels, Trends and Demographic Differentials*, rev. ed., World Fertility Survey Comparative Studies, Cross-national Summaries, No. 43 (Voorburg, Netherlands, International Statistical Institute, 1984).

TABLE A.9. ESTIMATES OF LIFE EXPECTANCY AT BIRTH AND INFANT AND CHILD MORTALITY, SELECTED COUNTRIES OF LATIN AMERICA, SINCE 1970

Country or area	Reference period	Life expectancy at birth			Infant and child mortality		Source of data	Method of estimation
		Both sexes	Male	Female	$_1q_0$	$_5q_0$		
		(years)			(per 1,000 live births)			
Argentina	1969-1970	66	62	70	56	68	Civil registration	A1
	1975-1980	69	65	72	41	47	Civil registration	A2
	1980-1981	69	66	73	36	42	Civil registration	A2
	1983-1985	..	..	..	29	..	Civil registration	A1
	1987-1988	..	..	..	26	..	Civil registration	A1
	1989	..	..	..	23	..	Civil registration	A1
Bahamas	1970-1972	..	..	..	34	..	Civil registration	A1
	1979-1981	..	..	..	26	..	Civil registration	A1
	1986-1988	..	..	..	29	..	Civil registration	A1
	1989-1990	..	..	..	24	..	Civil registration	A1
Barbados	1969-1971	68	66	71	41	47	Civil registration	A1
	1979-1981	72	70	75	22	25	Civil registration	A1
	1982-1984	..	..	..	17	..	Civil registration	A1
	1987-1989	..	..	..	13	..	Civil registration	A1
Bolivia	1972	..	..	..	152	254	1976 census	B1
	1970-1975	48	46	49	..	..	1975 survey; 1976 census	B1
	1976	..	..	..	126	199	1980 survey	B1
	1984	..	..	..	100	146	1988 survey	B1
	1977-1989	..	..	..	96	142	1989 DHS	C3
	1987-1989	..	..	..	86	130	1989 DHS	C3
Brazil	1970	58	56	59	98	141	1970 census; 1977 survey	B1,B2
	1975	60	59	62	86	118	Civil registration; 1977 survey	B1,A2
	1976-1980	62	60	65	..	..	Civil registration	A2
	1981-1986	..	..	..	76	86	1986 DHS	C3
	1988-1989	..	..	..	56	..	Civil registration	A2
Chile	1969-1971	62	59	65	78	91	Civil registration	A1
	1981-1983	71	67	74	24	29	Civil registration	A1

TABLE A.9 *(continued)*

Country or area	Reference period	Life expectancy at birth: Both sexes	Life expectancy at birth: Male (years)	Life expectancy at birth: Female	Infant and child mortality: $_1q_0$ (per 1,000 live births)	Infant and child mortality: $_5q_0$ (per 1,000 live births)	Source of data	Method of estimation
	1986-1987	..	..	..	19	..	Civil registration	A1
	1989-1990	72	69	75	17	20	Civil registration	A1
Colombia	1973	60	58	62	67	105	Civil registration	A2
	1976-1980	..	..	..	47	64	DHS 1986	C3
	1981-1986	..	..	..	33	42	DHS 1986	C3
	1985	70	68	73	31	40	Civil registration	A2
	1986-1990	..	..	..	17	23	DHS 1990	C3
Costa Rica	1972-1974	69	67	71	51	62	Civil registration	A2
	1979-1981	72	70	75	22	27	Civil registration	A2
	1982-1984	..	..	..	19	..	Civil registration	A1
	1987-1988	..	..	..	16	..	Civil registration	A1
	1989-1990	..	..	..	15	..	Civil registration	A1
Cuba	1969-1971	72	70	74	41	46	Civil registration	A1
	1980-1982	74	72	76	18	23	Civil registration	A1
	1985-1986	75	73	76	15	19	Civil registration	A1
	1986-1987	75	73	76	13	17	Civil registration	A1
	1988-1989	..	..	..	12	..	Civil registration	A1
	1990-1991	..	..	..	11	..	Civil registration	A1
Dominican Republic	1976	63	61	65	80	101	1980 census	B1
	1981-1986	..	..	..	68	88	1986 DHS	C3
Ecuador	1970	..	..	..	108	156	1974 census	B1
	1974-1979	..	..	..	76	118	1979 WFS	C3
	1978	..	..	..	76	106	1982 census	B1
	1982-1986	..	..	..	58	82	1987 DHS	C3
El Salvador	1970-1972	57	55	60	105	173	Civil registration	A2
	1981-1985	..	..	..	71	98	1985 DHS	C3
	1984-1988	..	..	..	50	66	1988 survey	C3
Guadeloupe	1975-1979	70	66	73	24	31	Civil registration	A1
	1981-1983	72	69	76	17	24	Civil registration	A1
	1984-1986	..	..	..	17	..	Civil registration	A1
	1987-1989	..	..	..	13	..	Civil registration	A1
Guatemala	1972-1973	55	54	56	93	159	Civil registration	A2
	1980-1982	58	55	62	81	126	Civil registration	A2
	1982-1987	..	..	..	73	110	1987 DHS	C3
	1987-1988	..	..	..	62	..	Civil registration	A2
	1989	..	..	..	55	..	Civil registration	A2
Guyana	1982	..	..	..	58	78	1986 survey	B1
Haiti	1980	..	..	..	132	195	1982 census	B1
	1985	..	..	..	109	158	1987 survey	B1
Honduras	1970-1975	54	52	56	101	173	Civil registration	A2
	1979	..	..	..	84	119	1983 survey	B1
	1982	..	..	..	69	95	1984 survey	B1
	1985	..	..	..	55	74	1988 census	B1
Jamaica	1969-1971	68	66	70	40	55	Civil registration	A2
	1977	..	..	..	36	45	1982 census	B1
	1984-1989	..	..	..	17	20	1989 CPS	C3
Martinique	1981-1983	73	71	75	15	23	Civil registration	A1
	1984-1986	..	..	..	11	..	Civil registration	A1
	1987-1989	..	..	..	10	..	Civil registration	A1
Mexico	1969-1971	61	59	63	82	117	Civil registration	A2
	1979-1981	66	63	69	53	66	Civil registration	A2
	1982-1987	..	..	..	47	61	1987 DHS	C3
Nicaragua	1973	..	..	..	96	138	1977-1978 survey	B1
	1981	..	..	..	86	122	1985-1986 survey	B1
Panama	1975-1980	69	68	71	32	53	Civil registration	A2
	1980-1985	71	69	73	26	37	Civil registration	A2
	1985-1986	..	..	..	25	..	Civil registration	A2
	1987-1989	..	..	..	21	..	Civil registration	A2
Paraguay	1973	..	..	..	57	75	1979 survey	B1
	1975-1980	64	62	66	53	73	1972 and 1982 censuses	B1
	1985-1990	..	..	..	34	43	1990 DHS	C3

TABLE A.9 *(continued)*

Country or area	Reference period	Life expectancy at birth: Both sexes	Life expectancy at birth: Male (years)	Life expectancy at birth: Female (years)	Infant and child mortality: $_1q_0$ (per 1,000 live births)	Infant and child mortality: $_5q_0$ (per 1,000 live births)	Source of data	Method of estimation
Peru	1972	56	56	57	108	162	1974-1976 survey; 1977-1978 WFS	B1
	1977	..	..	..	103	151	1981 CPS	B1
	1982-1986	..	..	..	76	112	1986 DHS	C3
	1988-1992	..	..	..	55	78	1991-1992 DHS	C3
Puerto Rico	1969-1971	72	69	75	29	32	Civil registration	A1
	1979-1981	74	70	78	19	21	Civil registration	A1
	1981-1983	..	..	..	17	19	Civil registration	A1
	1986-1988	75	71	79	13	15	Civil registration	A1
	1988-1990	74	70	79	14	15	Civil registration	A1
Saint Lucia	1970-1972	..	..	..	45	..	Civil registration	A1
	1979-1981	..	..	..	30	..	Civil registration	A1
	1986	71	68	75	21	26	Civil registration	A1
	1987-1989	..	..	..	19	..	Civil registration	A1
Suriname	1979-1981	66	64	69	44	56	Civil registration	A1
Trinidad and Tobago	1969-1971	65	63	67	44	51	Civil registration	A2
	1979-1981	68	65	70	36	40	Civil registration	A2
	1982-1987	..	..	..	26	30	1987 DHS	C3
	1987-1989	69	68	71	17	20	Civil registration	A2
Uruguay	1974-1976	69	66	73	47	52	Civil registration	A2
	1984-1986	72	68	75	29	33	Civil registration	A1
	1986-1987	..	..	..	26	..	Civil registration	A1
	1988-1990	..	..	..	21	..	Civil registration	A1
Venezuela[a]	1970-1972	65	62	68	50	69	Civil registration	A2
	1973	..	..	..	48	61	1977 WFS	B1
	1981	69	66	72	41	48	Civil registration	A2
	1986-1988	..	..	..	31	..	Civil registration	A2
	1989	..	..	..	30	..	Civil registration	A2

Sources: The list of sources follows the table notes.

NOTES: The codes for the methods of estimation are:

A1: based on complete vital registration data and census;

A2: based on vital registration and census with appropriate adjustment for net underregistration of vital events;

B1: based on census or survey questions on survivorship of kin;

B2: based on intercensal survival technique;

C1: based on follow-up questions in a multi-round survey;

C2: based on direct retrospective questions (deaths in previous *n* months) from census or survey;

C3: based on maternity histories.

The following abbreviations have been used: CPS: Contraceptive Prevalence Survey; DHS: Demographic and Health Survey; WFS: World Fertility Survey.

[a]Excluding Indian jungle population.

Sources: Unless otherwise indicated, estimates were made by the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat, using data made available by the countries to the United Nations Statistical Division. The sources given below are listed alphabetically by country and in chronological order within each country.

Argentina: *1969-1970*: *Age Structure of Mortality in Developing Countries: A Data Base for Cross-sectional and Time Series Research* (United Nations publication, ST/ESA/SER.R/66); *1975-1980*: "América Latina: tablas de mortalidad/Latin America: life tables", *Boletín demográfico*, año XXII, No. 44 (Santiago, Centro Latinoamericano de Demografía, 1989), p. 48.

Bolivia: *1970-1975*: for life expectancy at birth, A. Soliz, J. Bartlema and J. Chackiel, *Mortalidad y fecundidad, 1950-1976* (La Paz, Presidencia de la República, Ministerio de Planeamiento y Coordinación, Instituto Nacional de Estadística); *1972, 1976, 1984*: *Child Mortality Since the 1960s: A Database for Developing Countries* (United Nations publication, Sales No. E.92.XIII.10), p. 47-48; *1977-1989, 1987-1989*: *Encuesta Nacional de Demografía y Salud, 1989* (La Paz, Instituto Nacional de Estadística; and Columbia, Maryland, Institute for Resource Development/Macro Systems, Inc., 1990), table 2.1; and Institute for Resource Development/Macro Systems, Inc., "Selected statistics from DHS surveys", *DHS Newsletter* (Columbia, Maryland), vol. 4, No. 1 (1991), p. 12.

Brazil: *1970, 1975*: National Research Council, Panel on Brazil, *Levels and Recent Trends in Fertility and Mortality in Brazil*, Committee on Population and Demography Report, No. 21 (Washington, D.C., National Academy Press, 1983); *1976-1980*: personal communication with the Centro Latinoamericano de Demografía; *1981-1986*: José Maria Arruda and others, *Pesquisa Nacional sobre Saúde Materno-Infantil e Planejamento Familiar, 1986* (Rio de Janeiro, Sociedade Civil Bem-Estar Familiar no Brasil; and Columbia, Maryland, Institute for Resource Development, 1987), table 8.1.

Chile: *1969-1971*: *Age Structure of Mortality in Developing Countries: A Data Base for Cross-sectional and Time Series Research* (United Nations publication, ST/ESA/SER.R/66).

Colombia: *1973*: Hania Zlotnik, *Levels and Recent Trends in Fertility and Mortality in Colombia*, National Research Council Committee on Population and Demography Report, No. 12 (Washington, D. C., National Academy Press, 1982); *1976-1980, 1981-1986*: *Colombia: Tercera Encuesta de Prevalencia del Uso de Anticonceptivos y Primera de Demografía y Salud, 1986* (Bogotá, Colombia, Corporación Centro Regional de Población and Ministerio de Salud; and Columbia, Maryland, Institute for Resource Development/Westinghouse, 1988), table 6.1; *1986-1990*: *Colombia: Encuesta de Prevalencia, Demografía y Salud, 1990* (Bogotá, Colombia, Asociación Pro-Bienestar de la Familia Colombiana; and Columbia, Maryland, Institute for Resource Development/Macro International, Inc., 1991), table 7.1.

Costa Rica: *1972-1974*: *Age Structure of Mortality in Developing Countries: A Data Base for Cross-sectional and Time Series Research* (United Nations publication, ST/ESA/SER.R/66); *1979-1981*: *Costa Rica: estimaciones y proyecciones de población, 1950-2025*, fascículo F/CR1.1 (Costa Rica, Dirección General de Estadística y Censos, 1983).

Cuba: *1969-1971*: *Age Structure of Mortality in Developing Countries: A Data Base for Cross-sectional and Time Series Research* (United Nations publication, ST/ESA/SER.R/66).

Dominican Republic: *1976*: *República Dominicana: estimaciones y proyecciones de población 1950-2025*, fasciculo F./REPDOM.1 (Santo Domingo, Oficina Nacional de Estadística y CELADE, 1985); *1981-1986*: *Encuesta Demográfica y de Salud, 1986* (Santo Domingo, Consejo Nacional de Población y Familia; and Columbia, Maryland, Institute for Resource Development/Westinghouse, 1987), table 8.1.

Ecuador: *1970, 1978*: *Child Mortality Since the 1960s: A Database for Developing Countries* (United Nations publication, Sales No. E.92.XIII.10), p. 115; *1974-1979*: Shea Oscar Rutstein, *Infant and Child Mortality: Levels, Trends and Demographic Differentials*, rev. ed., World Fertility Survey Comparative Studies, Cross-national Summaries, No. 43 (Voorburg, Netherlands, International Statistical Institute, 1984); *1982-*

1986: *Ecuador: Encuesta Nacional de Demografía y de Salud Familiar, 1987* (Quito, Centro de Estudios de Población y Paternidad Responsable and Instituto Nacional de Investigaciones Nutricionales y Médico Sociales; and Columbia, Maryland, Institute for Resource Development/ Westinghouse, 1988), table 6.1.

El Salvador: *1970-1972*: *Age Structure of Mortality in Developing Countries: A Data Base for Cross-sectional and Time Series Research* (United Nations publication, ST/ESA/SER.R/66); *1981-1985*: El Salvador, *Encuesta Nacional de Salud Familiar, FESAL-85* (San Salvador, Asociación Demográfica Salvadoreña; and Columbia, Maryland, Institute for Resource Development/Westinghouse, 1987), p. 100; *1984-1988*: El Salvador, *Encuesta Nacional de Salud Familiar, FESAL-88* (San Salvador, Asociación Demográfica Salvadoreña; and Atlanta, Georgia, United States Centers for Disease Control, 1989), table 13.1.

Guadeloupe: *1975-1979*: personal communication with Jean-Pierre Guengant; *1981-1983*: *Age Structure of Mortality in Developing Countries: A Data Base for Cross-sectional and Time Series Research* (United Nations publication, ST/ESA/SER.R/66).

Guatemala: *1972-1973*: *Age Structure of Mortality in Developing Countries: A Data Base for Cross-sectional and Time Series Research* (United Nations publication, ST/ESA/SER.R/66); *1982-1987*: *Encuesta Nacional de Salud Materno Infantil, 1987* (Guatemala, Instituto de Nutricion de Centro America y Panama; and Columbia, Maryland, Institute for Resource Development/Westinghouse, 1989), p. 7, table 2.1.

Haiti: *1980, 1985*: *Child Mortality Since the 1960s: A Database for Developing Countries* (United Nations publication, Sales No. E.92.XIII.10), pp. 141-142.

Honduras: *1970-1975*: *América Latina: tablas de mortalidad/Latin America: Life Tables*, Boletín Demográfico, año XXII, No. 44 (Santiago, Chile, Centro Latinoamericano de Demografía, 1989), p. 212; *1979, 1982, 1985*: *Child Mortality Since the 1960s: A Database for Developing Countries* (United Nations publication, Sales No. E.92.XIII.10), pp. 146-147.

Jamaica: *1969-1971*: *Age Structure of Mortality in Developing Countries: A Data Base for Cross-sectional and Time Series Research* (United Nations publication, ST/ESA/SER.R/66); *1977*: *Child Mortality Since the 1960s: A Database for Developing Countries* (United Nations publication, Sales No. E.92.XIII.10), p. 175; *1984-1989*: *Contraceptive Prevalence Survey, Jamaica, 1989: Final Report* (Kingston, National Family Planning Board, 1990), pp. 68-69.

Martinique: *1981-1983*: *Age Structure of Mortality in Developing Countries: A Data Base for Cross-sectional and Time Series Research* (United Nations publication, ST/ESA/SER.R/66).

Mexico: *1969-1971*: *Age Structure of Mortality in Developing Countries: A Data Base for Cross-sectional and Time Series Research* (United Nations publication, ST/ESA/SER.R/66); *1979-1981*: Sergio Camposortega Cruz, *El nivel y la estructura de la mortalidad en México, 1940-1980* (Mexico City, Centro de Estudios Demográficos y de Desarrollo Urbano, El Colegio de México, 1984), p. 47; *1982-1987*: *Mexico: Encuesta Nacional sobre Fecundidad y Salud, 1987* (Mexico, D.F., Dirección General de Planificación Familiar, Secretaría de Salud, Subsecretaría de Servicios de Salud; and Columbia, Maryland, Institute for Resource Development/Macro Systems, Inc., 1989), table 5.2.

Nicaragua: *Child Mortality Since the 1960s: A Database for Developing Countries* (United Nations publication, Sales No. E.92.XIII.10), pp. 249-250.

Panama: *1970-1975*: *América Latina: tablas de mortalidad/Latin America: Life Tables*, Boletín Demográfico, año XXII, No. 44 (Santiago, Chile, Centro Latinoamericano de Demografía, 1989), p. 258; *1980-1985*: *Estadística Panamena*, Boletín No. 5 (Panama, Dirección de Estadística y Censo, 1987).

Paraguay: *1973*: *Child Mortality Since the 1960s: A Database for Developing Countries* (United Nations publication, Sales No. E.92.XIII.10), p. 271; *1975-1980*: *Paraguay: la mortalidad infantil segun variables socioeconómicas y geográficas, 1955-1980* CELADE Series A, No. 172 (Santiago, Centro Latinoamericano de Demografía; and Ministerio de Salud Pública y Bienestar Social del Paraguay, 1986); *1985-1990*: *Encuesta Nacional de Demografía y Salud, 1990* (Asunción, Centro Paraguayo de Estudios de Población; and Columbia, Maryland, Institute for Resource Development/Macro Systems, Inc., 1991), table 7.1.

Peru: *1972*: for life expectancy at birth, Kath Moser, *Levels and Trends in Child and Adult Mortality in Peru*. CPS Research Paper, No. 83 (London, Centre for Population Studies, London School of Hygiene and Tropical Medicine, 1983), table 48; *1977*: *Child Mortality Since the 1960s: A Database for Developing Countries* (United Nations publication, Sales No. E.92.XIII.10), p. 276; *1982-1986*: *Peru, Encuesta Demográfica y de Salud Familiar (ENDES 1986): informe general* (Lima, Instituto Nacional de Estadística, Dirección General de Demografía; and Columbia, Maryland, Institute for Resource Development/Macro Systems, Inc., 1988), p. 95; *1988-1992*: *Peru, Encuesta Demográfica y de Salud Familiar, 1991/1992* (Lima, Instituto Nacional de Estadística e Informática and Asociación Benéfica PRISMA; and Columbia, Maryland, Macro International, Inc., 1992), table 7.1.

Puerto Rico: *1969-1971, 1979-1981*: *Age Structure of Mortality in Developing Countries: A Data Base for Cross-sectional and Time Series Research* (United Nations publication, ST/ESA/SER.R/66).

Trinidad and Tobago: *1969-1971*: *Age Structure of Mortality in Developing Countries: A Data Base for Cross-sectional and Time Series Research* (United Nations publication, ST/ESA/SER.R/66); *1982-1987*: Kenneth Heath, Dona Da Costa-Martinez and Amy R. Sheon, *Trinidad and Tobago Demographic and Health Survey, 1987* (Port-of-Spain, Family Planning Association of Trinidad and Tobago; and Columbia, Maryland, Institute for Resource Development/Westinghouse, 1988), table 61.

Uruguay: *1974-1976*: *Age Structure of Mortality in Developing Countries: A Data Base for Cross-sectional and Time Series Research* (United Nations publication, ST/ESA/SER.R/66).

Venezuela: *1970-1972*: *Age Structure of Mortality in Developing Countries: A Data Base for Cross-sectional and Time Series Research* (United Nations publication, ST/ESA/SER.R/66); *1973*: *Child Mortality Since the 1960s: A Database for Developing Countries* (United Nations publication, Sales No. E.92.XIII.10), p. 363; *1981*: personal communication with Centro Latinoamericano de Demografía.

TABLE A.10. AVERAGE LIFE EXPECTANCY AT BIRTH, 1985-1990: GOVERNMENTS' PERCEPTIONS OF THE ACCEPTABILITY OF CURRENT MORTALITY, BY LEVEL OF DEVELOPMENT AND GEOGRAPHICAL REGION, 1992

Under 50 years		*50-59 years*		*60-69 years*		*70 years or over*		*All ages*		*Total number*
Acceptable (1)	*Not acceptable (2)*	*Acceptable (3)*	*Not acceptable (4)*	*Acceptable (5)*	*Not acceptable (6)*	*Acceptable (7)*	*Not acceptable (8)*	*Acceptable (9)*	*Not acceptable (10)*	*of countries (11)*
				World						
0	28	3	30	14	41	45	29	62	128	190
				More developed regions						
0	0	0	0	1	5	26	24	27	29	56
				Less developed regions						
0	28	3	30	13	36	19	5	35	99	134
				Least developed countries						
0	25	0	16	0	6	0	0	0	47	47
				Regions						
				Africa						
				Eastern Africa				2	15	17
—	Burundi Djibouti Eritrea Ethiopia Malawi Mozambique	—	Comoros Kenya Madagascar United Republic of Tanzania Zimbabwe	Mauritius	—	Seychelles	—			

TABLE A.10 *(continued)*

Under 50 years		*50-59 years*		*60-69 years*		*70 years or over*		*All ages*		*Total number of countries*
Acceptable (1)	*Not acceptable (2)*	*Acceptable (3)*	*Not acceptable (4)*	*Acceptable (5)*	*Not acceptable (6)*	*Acceptable (7)*	*Not acceptable (8)*	*Acceptable (9)*	*Not acceptable (10)*	*(11)*
	Rwanda Somalia Uganda Zambia									
					Middle Africa			0	9	9
—	Angola Central African Republic Chad Equatorial Guinea	—	Cameroon Congo Gabon Zaire	—	Sao Tome and Principe	—	—			
					Northern Africa			2	4	6
—	—	—	Egypt Sudan	Libyan Arab Jamahiriya Tunisia	Algeria Morocco	—	—			
					Southern Africa			0	5	5
					—	—	—	Botswana	—	Sout
Africa					—	—				
			Lesotho Namibia Swaziland							
					Western Africa			1	15	16
—	Benin Burkina Faso Gambia Guinea Guinea-Bissau Mali Mauritania Niger Senegal Sierra Leone	Côte d'Ivoire	Ghana Liberia Nigeria Togo	—	Cape Verde	—	—			
					Total					
0	24	1	19	3	5	1	0	5	48	53
					Asia					
					Eastern Asia			2	3	5
—	—	—	—	China	Mongolia Republic of Korea	Japan	Democratic Republic of Korea			
					South-eastern Asia			4	6	10
—	Cambodia Lao People's Democratic Republic	—	Myanmar	Malaysia Viet Nam	Indonesia Philippines Thailand	Brunei Darussalam Singapore	—			
					Southern Asia			0	9	9
—	Afghanistan Bhutan	—	Bangladesh India Nepal Pakistan	—	Iran (Islamic Republic of) Maldives	—	Sri Lanka			
					Western Asia			8	6	14
—	—	—	Yemen	Jordan Qatar Syrian Arab Republic	Iraq Lebanon Oman Saudi Arabia Turkey	Bahrain Cyprus Israel Kuwait United Arab Emirates	—			
					Total					
0	4	0	6	6	12	8	2	14	24	38

TABLE A.10 *(continued)*

Under 50 years		*50-59 years*		*60-69 years*		*70 years or over*		*All ages*		*Total number of countries*
Acceptable (1)	*Not acceptable (2)*	*Acceptable (3)*	*Not acceptable (4)*	*Acceptable (5)*	*Not acceptable (6)*	*Acceptable (7)*	*Not acceptable (8)*	*Acceptable (9)*	*Not acceptable (10)*	*(11)*
				Europe						
				Eastern Europe				1	5	6
—	—	—	—	Romania	—	—	Bulgaria Czech Republic[b] Hungary Poland Slovakia[b]			
				Northern Europe				7	3	10
—	—	—	—	—	—	Denmark Estonia Finland Iceland Ireland Lithuania Sweden	Latvia Norway United Kingdom			
				Southern Europe				7	7	14
—	—	—	—	—	—	Albania Andorra Holy See Italy Malta San Marino Spain	Bosnia and Herzegovina Groatia Greece Portugal Slovenia the former Yugoslav Republic[c] of Macedonia Yugoslavia			
				Western Europe				9	0	9
—	—	—	—	—	—	Austria Belgium France Germany Liechtenstein Luxembourg Monaco Netherlands Switzerland	—			
				Total						
0	0	0	0	1	0	23	15	24	15	39
				Latin America						
				Caribbean				6	7	13
—	—	—	Haiti	Antigua and Barbuda	Dominica Dominican Republic Grenada Saint Kitts and Nevis Saint Vincent and the Grenadines	Bahamas Barbados Cuba Jamaica Trinidad and Tobago	Saint Lucia			
				Central America				4	4	8
—	—	—	—	Mexico	El Salvador Guatemala Honduras Nicaragua	Belize Costa Rica Panama	—			
				South America				4	8	12
—	—	—	Bolivia	Colombia Paraguay	Brazil Ecuador Guyana Peru Suriname	Chile Uruguay	Argentina Venezuela			
				Total						
0	0	0	2	4	14	10	3	14	19	33

TABLE A.10 *(continued)*

Under 50 years		*50-59 years*		*60-69 years*		*70 years or over*		*All ages*		*Total number of countries*
Acceptable (1)	*Not acceptable (2)*	*Acceptable (3)*	*Not acceptable (4)*	*Acceptable (5)*	*Not acceptable (6)*	*Acceptable (7)*	*Not acceptable (8)*	*Acceptable (9)*	*Not acceptable (10)*	*(11)*
				Northern America				1	1	2
—	—	—	—	—	—	Canada	United States of America			
				Total						
0	0	0	0	0	0	1	1	1	1	2
				Oceania						
				Australia–New Zealand				1	1	2
—	—	—	—	—	—	Australia	New Zealand			
				Melanesia				1	3	4
—	—	—	Papua New Guinea Vanuatu	—	Solomon Islands	Fiji	—			
				Micronesia				1	3	4
—	—	Nauru	Kiribati	—	Marshall Islands Micronesia (Federated States of)	—	—			
				Polynesia				1	2	3
—	—	Tonga	—	—	Samoa Tuvalu	—	—			
				Total						
0	0	2	3	0	5	2	1	4	9	13
				Union of Soviet Socialist Republics (former)[d]				0	12	12
—	—	—	—	—	Kazakhstan Kyrgyzstan Republic of Moldova Turkmenistan Uzbekistan		Armenia Azerbaijan Belarus Georgia Russian Federation Tajikistan Ukraine			
				Total						
0	0	0	0	0	5	0	7	0	12	0

Source: The Population Policy Data Bank maintained by the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat.

[a]Including the least developed countries.

[b]The former State of Czechoslovakia was dissolved on 31 December 1992 and became the independent States of the Czech Republic and Slovakia on 1 January 1993.

[c]Unless otherwise indicated, data for Yugoslavia shown in this publication for the period beginning 27 April 1992 refer to the Federal Republic of Yugoslavia in terms of its boundaries as they exist from that date. Data for the period prior to 27 april 1992 refer to the former Socialist Federal Republic of Yugoslavia in terms of its boundaries as they existed prior to that date.

[d]Not including Estonia, Latvia and Lithuania, which are included in Northern Europe.

REFERENCES

Araújo, Maria da Purificaçâo (1985). Maternal mortality in Portugal. In *World Health Organization Interregional Meeting on Prevention of Maternal Mortality, Geneva, 11-15 November.*

Barnett, Tony, and Piers Blaikie (1992). *AIDS in Africa: Its Present and Future Impact.* London: Belhaven Press.

Bhatia, Jagadish C. (1988). *A Study of Maternal Mortality in Anantapur District, Andhra Pradesh, India.* Bangalore: Indian Institute of Management.

Boerma, J. Ties, and J. K. G. Mati (1989). Identifying maternal mortality through networking: results from Coastal Kenya. *Studies in Family Planning* (New York), vol. 20, No. 5 (September-October), pp. 245-253.

Botswana, Ministry of Finance and Development Planning (1991). *National Development Plan, 1991-1997.* Gaborone.

Cardoso, Ubaldo Farnot (1985). Maternal mortality in Cuba. In *World Health Organization Interregional Meeting on the Prevention of Maternal Mortality, Geneva, 11-15 November.*

Chen, Lincoln C., and others (1974). Maternal mortality in rural Bangladesh. *Studies in Family Planning* (New York), vol. 5, No. 11, pp. 334-341.

Cummings, Paul D., and others (1989). Exposure of patients to human immunodeficiency virus through the transfusion of blood components that test antibody-negative. *The New England Journal of Medicine* (Waltham, Massachusetts), vol. 321, No. 14 (5 October), pp. 941-946.

David, Henry P. (1992). Abortion in Europe, 1920-1991: a public health perspective. *Studies in Family Planning* (New York), vol. 23, No. 19 (January), pp. 1-22.

De Cock, Kevin M., and others (1990). AIDS: the leading cause of adult death in the West African city of Abidjan, Ivory Coast. *Science* (Washington, D. C.), vol. 249, No. 4970 (17 August), pp. 793-796.

_____ (1992). Tuberculosis and HIV infection in sub-Saharan Africa. *Journal of the American Medical Association* (Chicago, Illinois), vol. 268, No. 12 (23 September), pp. 1581-1587.

Dunn, D. T., and others (1992). Risk of human immunodeficiency virus type 1 transmission through breast-feeding. *The Lancet* (London), vol. 340, No. 8819 (5 September), pp. 585-588.

Esparza, José, and others (1991). Planning for HIV vaccine trials: the World Health Organization perspective. *AIDS* (London, United Kingdom), vol. 5, Supplement No. 2, pp. S159-S163.

Ford, Nicholas, and S. Koetsawang (1991). The socio-cultural context of the transmission of HIV in Thailand. *Social Science and Medicine* (Elmsford, New York), vol. 33, No. 4, pp. 405-414.

Graham, Wendy, William Brass and Robert W. Snow (1989). Estimating maternal mortality: the sisterhood method. *Studies in Family Planning* (New York), vol. 20, No. 3 (May-June) , pp. 125-135.

Hassig, Susan E., and others (1990). An analysis of the economic impact of HIV infection among patients at Mama Yemo hospital, Kinshasa, Zaire. *AIDS* (London), vol. 4, No. 9 (September), pp. 883-887.

Hausser, D., F. Dubois-Arber and E. Zimmerman (1992). Assessing AIDS prevention in Switzerland. In *Assessing AIDS Prevention,* Fred Paccaud, Jean-Paul Vader and Felix Gutzwiller, eds. Basel, and Boston, Massachusetts: Birkhäuser Verlag.

Hersh, B. S., and others (1991). The epidemiology of HIV and AIDS in Romania. *AIDS* (London, United Kingdom), vol. 5, Supplement No. 2, pp. S87-S92.

Herz, Barbara Knapp, and Anthony R. Measham (1987). *The Safe Motherhood Initiative: Proposals for Action.* Washington, D.C.: The World Bank.

Hord, Charlotte, and others (1991). Reproductive health in Romania: reversing the Ceausescu legacy. *Studies in Family Planning* (New York), vol. 22, No. 4 (July-August), pp. 231-240.

Jäger, H., C. Jersild and J. C. Emmanuel (1991). Safe blood transfusions in Africa. *AIDS* (London, United Kingdom), vol. 5, Supplement No. 1, pp. S163-S168.

Khan, Atiqur Rahman, Farida Akhter Jahan and S. Firoza Begum (1986). Maternal mortality in rural Bangladesh: the Jamalpur District. *Studies in Family Planning* (New York), vol. 17, No. 1 (January-February), pp. 7-12.

Khuanchai, Supparatpinyo, and others (1992). *Penicillium marneffei* infection in patients infected with human immunodeficiency virus. *Clinical Infectious Diseases* (Chicago, Illinois), vol. 14, No. 4 (April), pp. 871-874.

Kwast, Barbara E., Roger W. Rochat and Widad Kidane-Mariam (1986). Maternal mortality in Addis Ababa, Ethiopia. *Studies in Family Planning* (New York), vol. 17, No. 6 (November-December), pp. 288-301.

Kwast, Barbara E., and others (1985). Epidemiology of maternal mortality in Addis Ababa: a community-based study. *Ethiopian Medical Journal* (Addis Ababa), vol. 23, No. 1 (January), pp. 7-15.

Lamptey, P., and G. A. W. Goodridge (1991). Condom issues in AIDS prevention in Africa. *AIDS* (London, United Kingdom), vol. 5, Supplement No. 1, pp. S183-S193.

Lange, J. M. A., D. A. Cooper and S. A. Danner (1991). Antiretroviral treatment: state of the art and future directions. *AIDS* (London, United Kingdom), vol. 5, Supplement No. 2, pp. S181-S188.

Mahler, Halfdan (1987). The Safe Motherhood Initiative: a call to action. *The Lancet* (London), No. 8534 (21 March), pp. 668-670.

Maine, Deborah (1991). *Safe Motherhood Programs: Options and Issues.* New York: Columbia University Press.

_____ and others (1987). Prevention of maternal deaths in developing countries: program options and practical considerations. Background paper prepared for the International "Safe Motherhood" Conference, Nairobi, 10-13 February.

McCarthy, James, and Deborah Maine (1992). A framework for analysing the determinants of maternal mortality. *Studies in Family Planning* (New York), vol. 23, No. 1 (January-February), pp. 23-33.

Nathanson, Constance A. (1992). The position of women and mortality in developed countries. Paper presented at the Seminar on Premature Adult Mortality in Developed Countries: From Description to Explanation, Taormina, Italy, 1-5 June. Sponsored by the International Union for the Scientific Study of Population.

Novello, Antonia Coello (1992). *Surgeon General's Report to the American Public on HIV Infection and Aids.* Washington, D.C.: United States Department of Health and Human Services.

Over, Mead, and Peter Piot (1992). Health sector priorities review: HIV infection and sexually transmitted diseases. In *Disease Control Priorities in Developing Countries,* Dean T. Jamison and W. Henry Mosley, eds. New York: Oxford University Press.

Pan American Health Organization/World Health Organization (1990). *Regional Plan of Action for the Reduction of Maternal Mortality in the Americas.* 105th Meeting, Washington, D.C., June.

Phanuphak, P. (1992). Prevention strategies and assessment in Thailand. In *Assessing AIDS Prevention,* Fred Paccaud, Jean-Paul Vader and Felix Gutzwiller, eds. Basel, and Boston, Massachusetts: Birkhäuser Verlag.

Quinn, Thomas C., Jai P. Narain and Fernando R. K. Zacarias (1990). AIDS in the Americas: a public health priority for the region. *AIDS* (London, United Kingdom), vol. 4, No. 8 (August), pp. 709-724.

Rosenfield, Allan, and Deborah Maine (1985). Maternal mortality: a neglected tragedy: where is the M in MCH? *The Lancet* (London), No. 8446 (13 July), pp. 83-85.

Rosenthal, Elisabeth (1992). TB, easily transmitted, adds a peril to medicine. *The New York Times* (13 October).

Royston, Erica, and Sue Armstrong, eds. (1989). *Preventing Maternal Deaths.* Geneva: World Health Organization.

Rutenberg, Naomi, and others (1990). Direct and indirect estimates of maternal mortality with data on the survivorship of sisters: results from the Bolivia DHS. Paper presented at the Annual Meeting of the Population Association of America, Toronto, Ontario, 3-5 May 1990.

Saleh, Saneya (1987). Maternal mortality in Menoufia, Egypt, 1981-1983. In *High Risk Mothers and Newborns,* Abdel R. Omran, J. Martin and B. Hamza, eds. Switzerland: Ott Publishers.

Specter, Michael (1992). Neglected for years, TB is back with strains that are deadlier. *The New York Times* (11 October).

United Nations (1987). *Demographic Yearbook, 1986.* Sales No. E/F.87.XIII.1.

_____ (1991). *Demographic Yearbook, 1990.* Sales No. E/F.91.XIII.1.

_____ (1992a). *Child Mortality Since the 1960s: A Database for Developing Countries.* Sales No. E.92.XIII.10.

_____ (1992b). *Demographic Yearbook, 1991.* Sales No. E/F.92.XIII.1.

_____ (1992c). *World Population Monitoring, 1991: With Special Emphasis on Age Structure.* Population Studies, No. 126. Sales No. E.92.XIII.2.

_____ (1993). *World Population Prospects: The 1992 Revision.* Sales No. E.93.XIII.7.

United Nations and World Health Organization (1991). *The AIDS Epidemic and Its Demographic Consequences.* Proceedings of the Workshop on Modelling the Demographic Impact of the AIDS Epidemic in Pattern II Countries, New York, 13-15 December 1989. Sales No. E.91.XIII.5.

United Nations Children's Fund (1992). *The State of the World's Children, 1992.* New York: Oxford University Press.

_____ (1993). *The State of the World's Children, 1993.* New York: Oxford University Press.

United Nations Population Fund (1991). *AIDS Update.* New York.

_____ (1993). *The State of World Population, 1993.* New York.

United States of America, Department of Health and Human Services (1990). *Healthy People, 2000.* Washington, D.C.

_____ (1992). *Strategic Plan to Combat HIV and AIDS in the United States.* Washington, D.C.

_____, Centers for Disease Control (1987). Human immunodeficiency virus infection in the United States: a review of current knowledge. *Morbidity and Mortality Weekly Record* (Atlanta, Georgia), vol. 36, supplement No. S6, pp. 1-48.

United States of America, National Commission on Aids (1992). *An Expanding Tragedy: The Final Report of the National Commission on Aids.* Washington, D.C.

Van de Perre, Philippe, and others (1991). Postnatal transmission of HIV type 1 from mother to infant. *The New England Journal of Medicine* (Waltham, Massachusetts), vol. 325, No. 9 (29 August), pp. 593-598.

Waldron, Ingrid (1992). Contributions of genetic and environmental factors to changing sex differences in mortality. Paper presented at the Seminar on Premature Adult Mortality in Developed Countries: From Description to Explanation, Taormina, Italy, 1-5 June. Sponsored by the International Union for the Scientific Study of Population.

Weniger, B. C., and others (1991). The epidemiology of HIV infection and AIDS in Thailand. *AIDS* (London, United Kingdom), vol. 5, Supplement No. 2, pp. S71-S85.

Winikoff, Beverly, and Maureen Sullivan (1987). Assessing the role of family planning in reducing maternal mortality. *Studies in Family Planning* (New York), vol. 18, No. 3 (May-June), pp. 128-143.

World Health Organization (1986). *World Health Statistics Annual, 1986.* Geneva.

_____ (1987). *World Health Statistics Annual, 1987.* Geneva.

_____ (1988). *World Health Statistics Annual, 1988.* Geneva.

_____ (1989a). Unlinked anonymous screening for the public health surveillance of HIV infections. Proposed international guidelines. Geneva.

_____ (1989b). *World Health Statistics Annual, 1989*. Geneva.

_____ (1990). *Global Estimates for Health Situation Assessment and Projections, 1990*. Geneva.

_____ (1991a). Consensus statement from the consultation on global strategies for coordination of AIDS and STD control programmes. Geneva.

_____ (1991b). *Maternal Mortality Ratios and Rates: A Tabulation of Available Information*, 3rd ed. Geneva.

_____ (1991c). *World Health Statistics Annual, 1990*. Geneva.

_____ (1992a). Acquired immunodeficiency syndrome data as of 1 July 1992. *Weekly Epidemiological Record* (Geneva), vol. 67, No. 27, pp. 201-203.

_____ (1992b). AIDS/HIV infection in South-East Asia. New Delhi: World Health Organization, Regional Office for South-East Asia. 7 November.

_____ (1992c). *AIDS in South-East Asia: No Time for Complacency*. New Delhi: World Health Organization, Regional Office for South-East Asia.

_____ (1992d). Consensus statement from the WHO/UNICEF consultation on HIV transmission and breastfeeding. Geneva.

_____ (1992e). Current and future dimensions of the HIV/AIDS pandemic: a capsule summary. Geneva.

_____ (1992f). Environmental health in Russia. *NIS Health News* (Geneva), December.

_____ (1992g). Recommendations for the selection and use of HIV antibody tests. *Weekly Epidemiological Record* (Geneva), vol. 67, No. 20, pp. 145-149.

_____ (1992h). *World Health Statistics Annual, 1991*. Geneva.

_____ (1993a). Diphtheria in the former Soviet Union: the epidemic continues. Press release WHO/70, Geneva, 10 September.

_____ (1993b). *Global Programme on AIDS. The Current Global Situation of the HIV/AIDS Pandemic*. Geneva.

_____ (1993c). *Implementation of the Global Strategy for Health for All by the Year 2000. Second Evaluation: Eighth Report on the World Health Situation*, vol. 1, *Global Review*. Geneva.

_____ (1993d). *Taking the World's Pulse: The WHO Report* (Geneva), No. 3 (May-June).

_____ (1993e). *World Health Statistics Annual, 1992*. Geneva.

_____ Regional Office for South-East Asia (1993f). *Implementation of the Global Strategy for Health for All by the Year 2000: Second Evaluation: Eighth Report on the World Health Situation*, vol. 4, *South-East Asia Region*. New Delhi.

World Health Organization, Regional Office for the Western Pacific (1993g). *Implementation of the Global Strategy for Health for All by the Year 2000: Second Evaluation: Eighth Report on the World Health Situation*, vol. 7, *Western Pacific Region*. Manila.

V. POPULATION DISTRIBUTION

A. LEVELS AND TRENDS

1. *Urban population size and growth*

542. Just over 20 years ago, in 1970, more than half of the world urban population lived in the more developed regions; this had been the case as long as the distinction had been made between the more developed and less developed regions and between urban-dwellers and rural residents. But the balance shifted within five years; and by 1990, far more of the world urban population lived in countries in the less developed regions—1.4 billion compared with 881 million. In only two decades, the more developed regions had changed from having the majority of urban-dwellers to being home to only 39 per cent of them. By the end of the current series of United Nations urbanization projections in 2025, nearly four times as many urban-dwellers are expected to live in the less developed regions as in the more developed regions. The numbers—impressive for their sheer size, as well as for the brevity of the time elapsed during their growth—are projected to be about 4 billion urban residents in the less developed regions and 1.2 billion in the more developed regions in 2025.

543. This chapter examines the size and share of rural and urban populations in the more developed and the less developed regions, as well as the varying rates of growth that determine change in current and future decades.

Level of urbanization

544. Newly revised United Nations estimates indicate that at mid-1990, 43 per cent (almost 2.3 billion) of the world population lived in urban areas (table 45). With the urban population growing two and a half times faster than its rural counterpart, the level of urbanization is projected to rise to 48 per cent by 2000, reaching about 3.0 billion persons. United Nations projections further show that by 2025, more than three fifths of the world population will live in urban areas.

545. Urbanization patterns differ markedly between the more developed and the less developed regions. The less developed regions are undergoing rapid urbanization, a process that is projected to continue for decades to come (figure 39). On the other hand, the urbanization process has slowed in the the more developed regions, although the urban share has again begun to increase slowly in many countries, even where counter-urbanization was seen a decade before (box 21).

546. In 1970, 25 per cent of the population of the less developed regions lived in urban areas. During the subsequent 20 years, the urban population grew at 3.8 per cent per annum, while the population of rural areas grew at 1.2 per cent annually. By 1990, the urban population size had increased to 1.4 billion, constituting 34 per cent of the total population (table 46).

547. The 47 least developed countries[1] had both lower levels of urbanization and higher growth rates than the less developed regions as a whole (figure 40). In 1990, 20 per cent of their population lived in urban areas, up from 13 per cent in 1970. This figure implies an annual urban growth rate of 4.9 per cent. The urban population of the least devel-

TABLE 45. URBAN POPULATION AND PERCENTAGE OF POPULATION LIVING IN URBAN AREAS, 1970, 1990 AND 2025

Region	Urban population			Urban share		
	1970	1990	2025	1970	1990	2025
	(millions)			(percentage)		
World	1 352	2 282	5 187	37	43	61
Less developed regions	654	1 401	4 011	25	34	57
Least developed countries	38	103	532	13	20	44
Other less developed countries	615	1 298	3 479	26	36	59
More developed regions	698	881	1 177	67	73	84

Source: World Urbanization Prospects: The 1992 Revision (United Nations publication, Sales No. E.93.XIII.11).

TABLE 46. URBAN POPULATION AND PERCENTAGE URBAN IN THE LESS DEVELOPED REGIONS, 1970, 1990 AND 2025

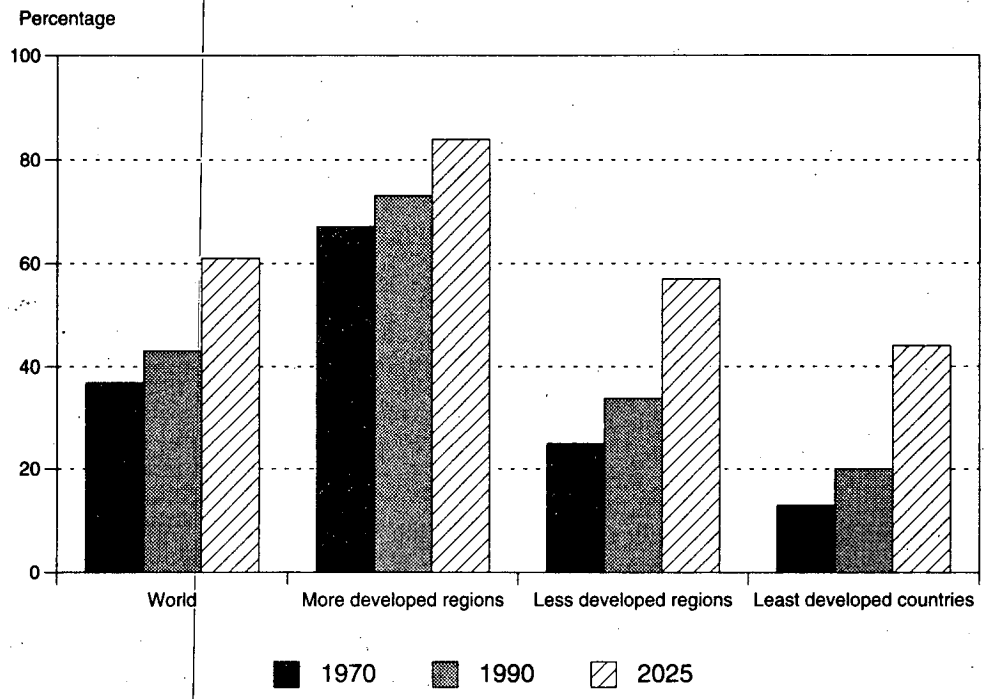
Region	Urban population			Urban share		
	1970	1990	2025	1970	1990	2025
	(millions)			(percentage)		
Less developed regions	654	1 401	4 011	25	34	57
Africa	83	206	857	23	32	54
Asia[a]	407	879	2 556	20	29	54
Latin America	162	315	592	57	72	84
Oceania[b]	0.7	1.5	5.3	18	24	45

Source: World Urbanization Prospects: The 1992 Revision (United Nations publication, Sales No. E.93.XIII.11).

[a]Excluding Japan.

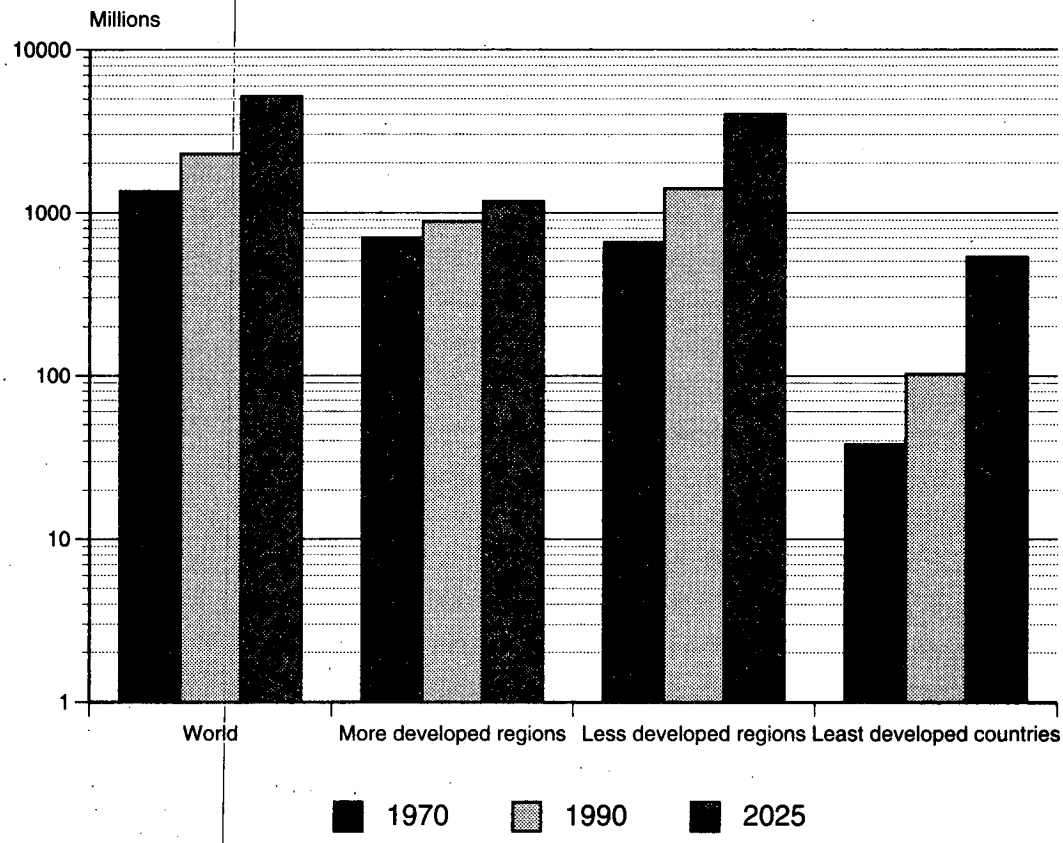
[b]Excluding Australia–New Zealand.

Figure 39. Percentage of total population living in urban areas, 1970, 1990 and 2025



Source: Table 45.

Figure 40. Urban population, 1970, 1990 and 2025



Source: Table 45.

BOX 21. COUNTER-URBANIZATION

A new trend emerged in the mid-1970s from data on migration and urbanization: people appeared to be moving out of large cities and into non-metropolitan areas. After decades of attracting migrants from the countryside, large cities no longer seemed to be magnets to rural movers. As demographers looked more closely at the counter-urbanization trend, they found it occurring in developed countries throughout the world—Canada, Australia, New Zealand, Japan and many countries in Western Europe. The timing and intensity of the phenomenon varied from country to country and even among regions within a country, but it was definitely happening in a wide range of settings.

Immediately dubbed the "rural-urban turn-round", to denote the change in direction of the flow of migrants, the trend became the subject of intense scrutiny and speculation. Some saw it as an anomaly driven by the enormous baby-boom cohort, which was maturing and entering the labour force. In the United States of America, they moved out of the industrial centres in the north-east to take new jobs being created in smaller cities and towns in the south and west. At the same time, manufacturing industries in the developed economies were giving way to a new type of enterprise, one based on services and knowledge. Technological advances, especially in transport and communication, allowed more freedom in choosing locations for living and working; and businesses abandoned the largest cities for lower density areas with more amenities. Retirement migrants, with their portable pension incomes, formed one segment of this migration stream.

The counter-urbanization trend had scarcely been established, however, when it seemed to lose momentum and sputter to a halt, at least in some countries. Now that data from the 1990 round of censuses are becoming available, migration in the 1970s and the 1980s can be compared to examine the deconcentration pattern. Census data for the United States confirm that the trend was a brief one, confined mainly to the 1970s. Cities are once again drawing migrants, but some researchers have observed that the cities with the highest growth rates have adapted to the new economic situation and are focusing on such specialties as financial services, insurance, advanced technology and knowledge-based and information-processing industries.

Evidence is still incomplete, but recent data from other developed countries present a mixed picture. Some countries are still experiencing population movement towards smaller metropolitan areas, whereas others are showing renewed growth in the largest cities. Unlike the trend towards deconcentration, which occurred during a short period of time, the "turnback-round" shows little uniformity in timing across countries.

oped countries was 38 million in 1970, but by 1990 it had increased to nearly 103 million. This number represents about 5 per cent of the world urban residents, but those countries are adding to their urban populations faster than any major area of the world. Growth rates for the least developed countries exceeded 5 per cent during 1985-1990, and five countries had rates higher than 7 per cent.

548. The level of urbanization in the less developed regions will reach 50 per cent in 2015. By the final year of the United Nations projections in 2025, the urban share will have reached 57 per cent, totalling over 4 billion inhabitants. The least developed countries are projected to have an urbanization level of 44 per cent by 2025, more than twice the 1990 level.

549. Latin America is the most urbanized major area of the less developed regions. In 1990, 72 per cent of the 441 million people in Latin America were urban-dwellers. From 1970 to 1990, 153 million persons were added to the urban areas. During the most recent five-year period alone (1985-1990), 42 million persons were added—8.4 million persons per annum. From 1990 to 2025, an additional 7.9 million persons per annum are expected to be absorbed, at which time 84 per cent of the Latin American population will be urban, a level comparable to that projected for the more developed regions.

550. However, even among the regions of Latin America, there are significant differences in the urbanization level: in 1990, the highest level of urbanization was found in South America (75 per cent), followed by Central America (66 per cent) and the Caribbean (59 per cent). Country variations are even more striking. Venezuela and Uruguay are almost completely urbanized (91 and 89 per cent, respectively), but five countries (Antigua and Barbuda, Haiti, Montserrat, Saint Vincent and the Grenadines, and Guyana) have urbanization levels under 35 per cent. All but Guyana are located in the Caribbean, and the ethnic distribution of population of Guyana is, perhaps, closer to that of the Caribbean than to that of the South American continent where it is located.

551. In contrast to Latin America, one third of the population of Africa lived in urban areas in 1990. The most urbanized regions are Southern Africa (46 per cent) and Northern Africa (44 per cent). Western Africa and Middle Africa are 33 and 32 per cent urban, respectively. However, 19 per cent of the population of Eastern Africa reside in urban areas. This range and rank order is projected to be maintained through 2025, although at a higher level: the percentage urban then is projected to vary from 41 per cent in Eastern Africa to 66 in Southern Africa.

552. In the midst of this urban process are a group of African countries, all classified as least developed by the United Nations, which have barely begun an urban transition. In nine least developed countries in Africa—Burkina Faso, Burundi, Ethiopia, Guinea-Bissau, Lesotho, Malawi, the Niger, Rwanda and Uganda—fewer than 20 per cent of the population were living in urban areas in 1990. In Burundi, 5.3 per cent of the population are urban-dwellers, and the proportion is projected to be under 17 per cent in 2025. Indeed, Burundi is estimated to be one the least urbanized countries in the world.

553. Asia had 974 million urban residents, constituting 31 per cent of its total population in 1990. Western Asia is the only region of Asia in which more than half of the population live in urban areas. In 1990, Western Asia was already 63 per cent urban. The level of urbanization is under 35 per cent elsewhere: 33 per cent in Eastern Asia (without Japan, it was only 29); 29 in South-eastern Asia; and 26 in Southern Asia.

554. The least developed countries of Asia, as is the case in Africa, are characterized by particularly low levels of urbanization. Six of the nine least developed countries in Asia—Afghanistan, Bangladesh, Bhutan, Cambodia, the Lao People's Democratic Republic and Nepal—had urbanization levels under 20 per cent in 1990, as did East Timor, Oman and Viet Nam. Bhutan is one of the least urbanized countries in the world, with only 5.3 per cent of its popula-

tion living in urban areas. The other three least developed countries of Asia (Maldives, Myanmar and Yemen) were under 30 per cent urbanized. In 1990, Bangladesh had the largest urban population of any of the least developed countries, nearly 19 million, and its high urban growth rate (over 6 per cent per annum in 1985-1990) is expected to add more than 75 million urban residents to its population by 2025.

555. The less developed islands of Oceania had only 6.2 million persons and 1.5 million urban residents in 1990. Urban Oceania comprises only 0.11 per cent of the urban population of the less developed regions. Less developed Oceania is currently the least urbanized area in the world—24 per cent urban in 1990. The most urbanized of the developing countries in Oceania is French Polynesia (65 per cent) and the least urbanized is Solomon Islands (15 per cent). Five islands in Oceania—Kiribati, Samoa, Solomon Islands, Tuvalu and Vanuatu—were classifed as least developed.

556. A high level of urbanization is characteristic of each of the more developed regions. Australia-New Zealand, Northern Europe and Western Europe had an urbanization level of 80 per cent or more. Even in the least urbanized more developed region of Eastern Europe, 63 per cent of the population lived in urban areas (table 47).

557. The differences within the more developed regions and, in particular, among European countries, are more conspicuous at the country level, because regional averages partially screen national variations. Among 29 countries in the more developed regions with 2 million or more inhabitants, 11 are more than 75 per cent urbanized and 16 are between 50 and 75 per cent urbanized. On the other hand, in Albania and Portugal, fewer than 40 per cent of the population reside in urban areas. Three very small European countries or areas—Gibraltar, Monaco and the Holy See—are essentially city-States and are 100 per cent urban, as is Bermuda in Northern America. Nine other European countries also have a population under 2 million. Some of them, such as Iceland, Luxembourg, Malta and San Marino, are highly urbanized; others, for example, the Channel Islands and the Faeroe Islands in the North Sea, are mainly rural.

558. The most urbanized countries of the more developed regions are Belgium (96 per cent), the Netherlands and the United Kingdom (both 89 per cent), and Denmark and Germany (both 85 per cent). Thus, one can see that there is a North Sea belt of highly urbanized countries—the four contiguous countries of Belgium, the Netherlands, Germany and Denmark, plus the United Kingdom across the Sea.

559. Southern Europe, Eastern Europe and the former USSR[2] are less urbanized. Southern Europe, which is 66 per cent urban, contains two of the least urbanized countries: Albania and Portugal, both of which are only about one third urban. It also contains such highly urbanized countries as Italy (69 per cent), Spain (78 per cent) and Malta (87 per cent). With national levels of urbanization ranging from 34 to 87 per cent, Southern Europe is the most heterogeneous among the more developed regions.

560. Eastern Europe and the former USSR are 63 and 66 per cent urban, respectively. The countries therein are fairly homogeneous. All but Romania, which is 54 per cent urban, fall in a range of urbanization between 62 and 77 per cent.

Urban population: its size and diversity

561. In 1970, about 1.4 billion of the 3.7 billion people in the world lived in urban areas. They were almost evenly divided between the more developed regions (698 million) and the less developed regions (654 million). The more developed regions had a slight edge in the number of urban-dwellers, but it soon disappeared as rapid population growth in the less developed regions, along with the movement of migrants from farms to cities, tipped the balance by 1975. The margin has continued to widen since then. Each year more urban-dwellers are added to the world population, but cities in the more developed regions are generally adding a moderate number of residents, whereas urban growth in the less developed areas is booming. Figure 41 shows the distribution of urban population in 1990; the pie chart for the less developed countries is proportionately larger to reflect the larger number of urban-dwellers there.

562. By 1990, approximately 2.3 billion people in the world lived in urban areas, three fifths of which (61 per cent) were in the less developed regions. Projections for 2025 show an urban population of about 5.2 billion, of which 77 per cent will live in the less developed regions.

Distribution of urban-dwellers among areas

563. Within regions, the percentage distribution of the urban populations is shifting, driven by varying rates of increase in the number of urban residents. Urban populations are growing in both the more developed and the less developed regions of the world and in all major areas, but the less developed regions, particularly in Asia, are adding urban-dwellers much more rapidly than the more developed regions. Already in 1970, Asia (excluding Japan for this discussion) was home to 408 million urban-dwellers, the largest number for any major area. But this already sizeable number more than doubled by 1990, rising to 879 million, and it is expected to increase to more than 2.5 billion by 2025. Almost half (49 per cent) of all the urban people in the world are expected to live in the less developed regions of Asia in 2025.

TABLE 47. URBAN POPULATION AND PERCENTAGE URBAN IN THE MORE DEVELOPED REGIONS, 1970, 1990 AND 2025

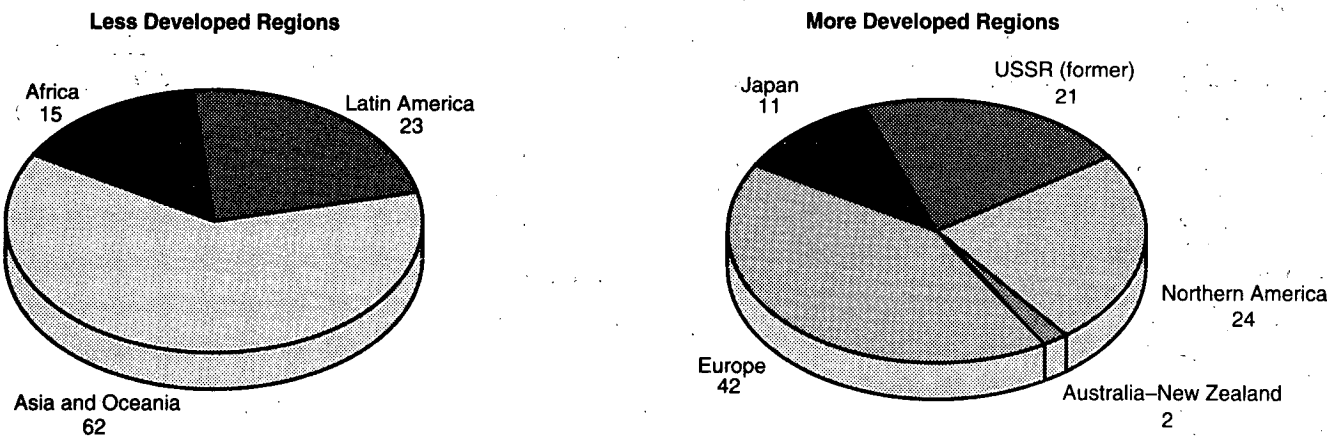
Region	Urban population			Urban share		
	1970	1990 (millions)	2025	1970	1990 (percentage)	2025
More developed regions	698	881	1 177	67	73	84
Australia–New Zealand	13	17	27	84	85	90
Europe	311	373	458	67	73	85
Japan	74	95	109	71	77	86
Northern America	167	209	307	74	75	85
USSR (former)[a]	133	186	277	57	66	80

Source: World Urbanization Prospects: The 1992 Revision (United Nations publication, Sales No. E.93.XIII.11).

[a]Not including Estonia, Latvia and Lithuania, which are included in Europe.

Figure 41. Distribution of urban population of the world, 1990

(Percentage)



Sources: Tables 46 and 47.

[a]Excluding Japan, Australia and New Zealand.

564. The major area with the second largest number of urban residents in 1970 was Europe, with 311 million. Its growth pattern is much different from that of Asia. By 1990, it had added only another 62 million urban-dwellers, and the projection for 2025 shows Europe at nearly 458 million, an addition of 84 million persons to the urban population in 35 years. At the same time, the less developed regions of Asia are expected to add nearly 1.7 billion urban residents during the 35-year period—about 20 urban Asians for every new European urban resident.

565. Latin America is also growing rapidly, nearly doubling its urban population—from 162 million to 315 million—between 1970 and 1990. Growth rates have already begun to decline in that area, however, and growth is expected to continue to moderate in future decades, resulting in a projected urban population of 592 million by 2025. Latin America will be home to the second largest number of urban residents by 2005, trailing Asia by a wide margin. By 2025, however, it will have fewer urban residents than Africa.

566. Africa merits special attention in this discussion because its urban population is growing faster than that of any other major area. From a relatively modest 83 million urban residents in 1970, Africa increased to a substantial 206 million in 1990. Projections for 2005 put its urban population at 400 million, and it will double again in the subsequent 20 years, rising to 857 million urban residents by 2025. As recently as 1950, Africa was home to only 32 million urbanites; six of every seven Africans lived in rural areas. As is shown below in the discussion of growth rates, Africa has been adding urban-dwellers faster than any other major area for some time, and it is expected to continue to do so into the twenty-first century.

567. Changes in the size of the urban population of a major area are heavily influenced by the policies and activities of the major countries within the area. For example, China in 1990 had 39 per cent of the population of Asia (excluding Japan); it had 34 per cent of the urban population in Asia. But China has been adding to its urban population more rapidly than other parts of Asia. Projections for 2005 show that China is expected to have 36 per cent of the population of Asia and 35 per cent of its urban population, a loss in its share of the total population of Asia, but a gain in its share of the urban population. By 2025, the slow-down in the rate of population growth in China (compared with those of other countries in the less developed regions of Asia) and in its urban growth are expected to lead to smaller shares of both the population of Asia (32 per cent) and its urban population (33 per cent) (see box 22).

BOX 22. URBAN ESTIMATES IN CHINA

Before the release of data from the 1990 Census of China, official statistics from the State Statistical Bureau implied an extremely rapid urban population increase during the period after the 1982 census. For example, the *Statistical Yearbook of China, 1990* reports that the urban percentage rose from 21 per cent in 1982 to 32 in 1984 and to 37 in 1985. The estimate for 1989 was 52 per cent. It explains that the rapid increase is due to the larger number of towns after the criteria for defining a town were adjusted in 1984.

Some observers assumed that the official data reflected very rapid rural-urban population movements in China in the 1980s, but careful analysis of the data indicated otherwise. Although China had been urbanizing rapidly, the change in definition was the reason for much of the apparent urban growth and led to an overstatement of the rate of urbanization. The United Nations, in its *1990 Revision*, took into account the adjustment of criteria when it prepared its estimates and determined that the urban percentage in 1985 was 26 per cent rather than the 37 per cent officially reported.

Meanwhile, a new Census of China was conducted in 1990; and its results were expected to clarify the situation, because the official definition of urban used in the 1990 census corresponded fairly closely to that used in the 1982 census. The two censuses together could provide a reliable picture of urban transition in China. The 1990 census found an urbanization level of 26 per cent, well below the previous official Chinese estimates and even below the United Nations *1990 Revision*, which had estimated the level at 33 per cent. In its *1992 Revision*, the United Nations incorporates those important results from the 1990 Census of China and also estimates a level of urbanization of 26 per cent for 1990.

Rates of urban growth

568. The current rate of growth of the urban population in the world for the most recent five-year period (1985-1990) is estimated at 2.7 per cent per annum (table 48). The rate has fluctuated between 2 and 3 per cent since the early 1960s, and the trend is slowly downward. It is expected to hover near 2.5 per cent at the turn of the century, to decline during each of the next three quinquennial periods and to dip below 2 per cent for the first time in 2020-2025. Even this annual rate of just under 2 per cent would increase the size of the urban population by about 94 million persons in 2020, if current projections are borne out. But urban growth rates vary widely in different parts of the world; the less developed regions far outstrip the more developed ones. In the more developed regions, the urban population has been growing at about 1 per cent per annum since 1980-1985, and it is expected to continue to decline slowly into the next century. Projections for 2020-2025 for the more developed regions show an annual growth rate of about 0.6 per cent.

TABLE 48. AVERAGE ANNUAL RATE OF CHANGE OF URBAN POPULATION, 1965-1970, 1985-1990 AND 2020-2025
(Percentage)

Region	*1965-1970*	*1985-1990*	*2020-2025*
World total	2.64	2.66	1.95
Less developed regions	3.60	3.79	2.37
More developed regions	1.78	1.00	0.58

Source: World Urbanization Prospects: The 1992 Revision (United Nations publication, Sales No. E.93.XIII.11).

569. Rates are falling in the less developed regions as well, but from much higher levels and with more fluctuations. Growth exceeded 4 per cent in 1950-1955 and 5 per cent in 1955-1960; between 1965-1970 and 2005-2010, the growth rate is expected to decline from 3.4 to 3.0 per cent, with temporary increases to 3.9 per cent in the years between 1975 and 1985. Projections for 2010-2015 show a rate under 3 per cent for the first time, and it is expected to decline further in subsequent five-year periods before reaching a low of 2.4 per cent for 2020-2025, the last years in the current series of projections.

Urban growth rates within major areas

570. Tables 49 and 50 show how much urban growth rates can vary across major areas; rates are given for 1965-1970, 1985-1990 and 2020-2025. Africa consistently has the highest urban growth rates throughout the time period, beginning in 1965-1970 with 4.8 per cent and declining to 3.4 per cent by 2020-2025. Latin America also begins with a high rate—4.0 per cent—but it falls to 1.2 per cent by 2020-2025, a rate near the range of the more developed regions. Latin America is the only major area to decline monotonically during each five-year period from 1950-1955 to 2020-2025.

571. The rates for Asia are shown excluding Japan. Japan was home to only about 4 per cent of the population of Asia in 1990, but its exclusion makes a substantial difference in Asian urban growth rates. The less developed regions of Asia added urban population at a rate of 3.2 per cent per annum in 1965-1970, the lowest among the less developed regions. By 1985-1990, the rate had risen to 4 per cent, the only major area in the world to show an increase in that time period. A decline is projected for 2020-2025, to 2.3 per cent, but the huge size of the urban population of Asia makes even a modest growth rate loom large when the number of urban inhabitants added to the population is considered. With a 1990 urban population of 879 million (again, excluding Japan), the growth rate of Asia, just under 4 per cent, would add nearly 35 million additional urban residents, whereas that of Africa, though higher at 4.5 per cent, when applied to a population of 206 million urban residents in 1990 results in the addition of about 9 million new urban residents.

TABLE 49. AVERAGE ANNUAL RATE OF CHANGE OF URBAN POPULATION IN THE LESS DEVELOPED REGIONS, 1965-1970, 1985-1990 AND 2020-2025
(Percentage)

Region	*1965-1970*	*1985-1990*	*2020-2025*
Less developed regions	3.60	3.79	2.37
Africa	4.75	4.51	3.39
Asia[a]	3.22	3.96	2.31
Latin America	3.99	2.86	1.20
Oceania[b]	7.34	3.59	3.04

Source: World Urbanization Prospects: The 1992 Revision (United Nations publication, Sales No. E.93.XIII.11).
[a]Excluding Japan.
[b]Excluding Australia–New Zealand.

TABLE 50. AVERAGE ANNUAL RATE OF CHANGE OF URBAN POPULATION IN THE MORE DEVELOPED REGIONS, 1965-1970, 1985-1990 AND 2020-2025
(Percentage)

Region	*1965-1970*	*1985-1990*	*2020-2025*
More developed regions	1.78	1.00	0.58
Australia–New Zealand	2.38	1.44	0.93
Japan	2.20	0.57	0.04
Europe	1.51	0.80	0.33
Northern America	1.63	1.16	0.81
USSR (former)[a]	2.36	1.40	0.92

Source: World Urbanization Prospects: The 1992 Revision (United Nations publication, Sales No. E.93.XIII.11).
[a]Not including Estonia, Latvia and Lithuania, which are included in Europe.

572. Within major areas as well, enormous variation in urban growth rates is apparent. The urban growth rate in Eastern Africa is the highest in Africa, in excess of 6 per cent in 1965-1970, and it is projected to remain high well into the next century. The rate in Southern Africa, however, was under 3 per cent in 1965-1970 and is projected to fall even lower in future years—to 2.3 per cent in 2020-2025.

573. The island groups in the vast area of Oceania show a great deal of variation, both in current rates and in future projections. Melanesia, at 8.5 per cent in 1965-1970, has the highest urban growth rate of all regions. But the populations are so small in those Pacific island groups and migration so commonplace that the numbers can fluctuate greatly from one census to another.

Distribution of rural population

574. Urban populations are growing, but what is happening to the corresponding population in rural areas? Fertility rates are higher in rural areas and excess fertility provides a pool of migrants to the city. But does this mean that rural areas have fewer residents than they had two decades ago? And what is the expectation for the future?

575. The rural population of the world is still growing larger, and it is expected to do so—but in smaller and smaller increments—until 2015, when it begins to decline slowly. Table 51 shows the number of rural residents in the world increasing from 2.3 billion in 1970 to 3.0 billion in 1990 and a projected 3.3 billion in 2025. The corresponding growth rates for the five-year period preceding each of the figures cited are 1.7 per cent for 1965-1970, 1.1 for 1985-1990 and −0.4 for 2020-2025.

TABLE 51. RURAL POPULATION AND AVERAGE ANNUAL RATE OF CHANGE OF RURAL POPULATION IN THE WORLD, 1965-1970, 1985-1990 AND 2020-2025

Region	Rural population			Rate of change		
	1970	1990 (millions)	2025	1965–1970	1985–1990 (percentage)	2020–2025
World total	2 345	3 013	3 285	1.73	1.07	−0.35
Less developed regions	1 994	2 683	3 059	2.2	1.24	−0.27
More developed regions	350	330	227	−0.76	−0.28	−1.48

Source: World Urbanization Prospects: The 1992 Revision (United Nations publication, Sales No. E.93.XIII.11).

576. As noted earlier, differences between the more developed and the less developed regions are striking (tables 52 and 53). In 1970, the more developed regions had only 350 million rural inhabitants, compared with almost 2 billion in the less developed regions. The numbers continue a pattern of decline in the more developed regions, to 330 million in 1990 and to 227 million in 2025. Rates of rural growth have been negative in the more developed regions for four decades, and the decline is expected to accelerate in future decades until it reaches a rate of −1.5 per cent in 2020-2025.

577. In the less developed regions, the absolute number of rural inhabitants is projected to continue to increase until 2015; but rates of increase have already begun to fall, from 2.2 per cent in 1965-1970 to 1.2 in 1985-1990, and they are projected to fall to a negative rate of −0.3 in 2020-2025. The rural population in the less developed regions grew from 2 billion in 1970 to 2.7 billion in 1990; the projection for 2025 is 3.1 billion rural residents.

578. When major areas are examined, the differences in rural population change are notable. Africa is the only major area to continue to increase its rural population throughout the series of projections, so that by 2025, it is anticipated that about 726 million Africans will live in rural areas. (By that year, the total population of Africa is projected to be about 1.6 billion.) Its rate of increase is expected to fall below 1 per cent by 2020-2025, but Eastern Africa continues to maintain a higher rate of increase at 1.2 per cent. By contrast, both Northern and Southern Africa will have negative rates of rural growth in the final five-year period of the projections.

579. In Asia, the annual rural growth rate is expected to drop below 1 per cent for the first time during the current five-year period 1990-1995 and to continue to fall monotonically through the entire series of projections. The rate first becomes negative in 2010-2015, but the rural population of Asia continues to increase, from 1.6 billion in 1970 to 2.1 billion in 1990 and 2.2 billion in 2025. Eastern Asia is expected to show the most rapid drop in rural population growth: after increasing from 743 million rural residents in 1970 to a high of 902 million in 1990, there will be a considerable decline to 733 million by 2025.

580. Growth in Southern Asia, however, is a far different story. Between 1970 and 2025, its rural population is expected to increase from 607 million to 1.1 billion, surpassing that of Eastern Asia by 1995. The two population behemoths, China and India, then diverge, with Eastern Asia beginning to show a decline in rural population by 2005 and Southern Asia continuing to add rural residents until it reaches a high of more than 1.1 billion in 2015. A modest

TABLE 52. RURAL POPULATION AND AVERAGE ANNUAL RATE OF CHANGE OF RURAL POPULATION IN THE LESS DEVELOPED REGIONS, 1965-1970, 1985-1990 AND 2020-2025

Region	Rural population			Rate of change		
	1970	1990 (millions)	2025	1965–1970	1985–1990 (percentage)	2020–2025
Less developed regions	1 994	2 683	3 059	2.20	1.24	−0.27
Africa	280	437	726	2.07	2.26	0.78
Asia[a]	1 590	2 115	2 217	2.33	−1.11	−0.58
Latin America	121	126	109	0.83	−0.13	−0.65
Oceania[b]	3	5	7	1.59	1.69	0.12

Source: World Urbanization Prospects: The 1992 Revision (United Nations publication, Sales No. E.93.XIII.11).

[a]Excluding Japan.

[b]Excluding Australia–New Zealand.

TABLE 53. RURAL POPULATION AND AVERAGE ANNUAL RATE OF CHANGE OF RURAL POPULATION IN THE MORE DEVELOPED REGIONS, 1965-1970, 1985-1990 AND 2020-2025

Region	Rural population			Rate of change		
	1970	1990 (millions)	2025	1965–1970	1985–1990 (percentage)	2020–2025
More developed regions	350	330	227	−0.76	-0.28	−1.48
Australia–New Zealand	2	3	3	−0.84	1.78	−0.98
Europe	156	136	84	−0.91	−0.74	−1.70
Japan	30	28	18	−1.47	0.01	−1.99
Northern America	59	68	54	−0.22	0.36	−1.24
USSR (former)[a]	103	95	68	−0.64	−0.21	−1.27

Source: World Urbanization Prospects: The 1992 Revision (United Nations publication, Sales No. E.93.XIII.11).

[a]Not including Estonia, Latvia and Lithuania, which are included in Europe.

decline of about 24 million rural residents is expected in the following decade.

581. At the other end of the rural growth spectrum are Europe and Northern America, both of which have experienced negative rates of rural growth since the 1950s. In Europe, the rural population has declined consistently for the past four decades, from 174 million in 1950 to 156 million in 1970 and 136 million in 1990. Projections show rural decline accelerating (rates will reach −1.0 per cent by 1995-2000 and −1.7 by 2020-2025), so that by 2025, the rural population in Europe is expected to be 84 million.

582. The rural population of Northern America is also declining, but the trend has been less clear during recent decades. Small population losses in rural areas have alternated with modest gains for some time, and the absolute number of rural residents has been remarkably stable, between 59 million and 69 million since 1950; projections to 2010 also fall within that range. The rural population is expected to decline in each five-year period from 1995-2000 to 2020-2025, resulting in 54 million rural residents in Northern America in 2025.

583. The former USSR is also exhibiting rapid declines in its rural population, from 103 million in 1970 to about 68 million in 2025. Growth rates have been negative since the period 1960-1965, and larger negative growth rates are expected into the next century. Urbanization is expected to continue rapidly in the former USSR. In 1970, 57 per cent of the population lived in urban areas. The figure was 66 per cent by 1990, and United Nations projections put it at 80 per cent in 2025.

2. *The world cities: their size, growth and hierarchical structure*

The 10 largest cities

584. Tokyo continues to be the largest urban agglomeration in the world. It has been No.1 since 1970 and is projected to be first each decade through 2010. New York slipped from first place in 1960 to second in 1970 and then to third in 1990. It is projected to continue to fall in rank in the next two decades—to fifth in 2000 and ninth in 2010.

585. Including Tokyo and New York, the world's 10 largest cities in 1990 were Shanghai, Bombay and Seoul in Asia;

TABLE 54. THE 10 LARGEST URBAN AGGLOMERATIONS IN THE WORLD, RANKED BY POPULATION SIZE IN MILLIONS, 1950-2010

Rank	Agglomeration and Country	Population
	A. *1950*	
1.	New York, United States of America	12.3
2.	London, United Kingdom	8.7
3.	Tokyo, Japan	6.9
4.	Paris, France	5.4
5.	Moscow, USSR (former)	5.4
6.	Shanghai, China	5.3
7.	Essen, Germany, Federal Republic of	5.3
8.	Buenos Aires, Argentina	5.0
9.	Chicago, United States of America	4.9
10.	Calcutta, India	4.4
	B. *1960*	
1.	New York, United States of America	14.2
2.	Tokyo, Japan	11.0
3.	London, United Kingdom	9.1
4.	Shanghai, China	8.8
5.	Paris, France	7.2
6.	Buenos Aires, Argentina	6.8
7.	Los Angeles, United States of America	6.5
8.	Essen , Germany, Federal Republic of	6.4
9.	Beijing, China	6.3
10.	Osaka, Japan	6.2
	C. *1970*	
1.	Tokyo, Japan	16.5
2.	New York, United States of America	16.2
3.	Shanghai, China	11.2
4.	Osaka, Japan	9.4
5.	Mexico City, Mexico	9.1
6.	London, United Kingdom	8.6
7.	Paris, France	8.5
8.	Buenos Aires, Argentina	8.4
9.	Los Angeles, United States of America	8.4
10.	Beijing, China	8.1
	D. *1980*	
1.	Tokyo, Japan	21.9
2.	New York, United States of America	15.9
3.	Mexico City, Mexico	13.9
4.	São Paulo, Brazil	12.1
5.	Shanghai, China	11.7
6.	Osaka, Japan	10.0
7.	Buenos Aires, Argentina	9.9
8.	Los Angeles, United States of America	9.5
9.	Calcutta, India	9.0
10.	Beijing, China	9.0
	E. *1990*	
1.	Tokyo, Japan	25.0
2.	São Paulo, Brazil	18.1
3.	New York, United States of America	16.1
4.	Mexico City, Mexico	15.1
5.	Shanghai, China	13.4
6.	Bombay, India	12.2
7.	Los Angeles, United States of America	11.5
8.	Buenos Aires, Argentina	11.4
9.	Seoul, Republic of Korea	11.0
10.	Rio de Janeiro, Brazil	10.9
	F. *2000*	
1.	Tokyo, Japan	28.0
2.	São Paulo, Brazil	22.6
3.	Bombay, India	18.1
4.	Shanghai, China	17.4
5.	New York, United States of America	16.6
6.	Mexico City, Mexico	16.2
7.	Beijing, China	14.4
8.	Lagos, Nigeria	13.5
9.	Jakarta, Indonesia	13.4
10.	Los Angeles, United States of America	13.2
	G. *2010*	
1.	Tokyo, Japan	28.9
2.	São Paulo, Brazil	25.0
3.	Bombay, India	21.7
4.	Shanghai, China	17.4
5.	Lagos, Nigeria	21.1
6.	Mexico City, Mexico	18.0
7.	Beijing, China	18.0
8.	Dhaka , Bangladesh	17.6
9.	New York, United States of America	17.2
10.	Jakarta, Indonesia	17.2

Source: World Urbanization Prospects: The 1992 Revision (United Nations publication, Sales No. E.93.XIII.11).

São Paulo, Mexico City, Buenos Aires and Rio de Janeiro in Latin America; and Los Angeles in Northern America. Their populations ranged from 25 million in Tokyo—the largest by far—to 10.9 million in Rio. Table 54 shows how the list of the 10 largest cities has changed in composition and population size from 1950 to projections for 2010.

586. The trend continues for urban agglomerations from the more developed regions to be displaced in the list of 10 by those from the less developed regions. By 2010, only two agglomerations from the more developed regions are projected to remain on the list of the 10 largest—Tokyo and New York. And the only urban agglomeration from a more developed region to appear even among the second 10 largest is Los Angeles. In other words, only three of the 20 largest urban agglomerations projected for 2010 are in the more developed regions.

587. Beijing (China), Lagos (Nigeria) and Jakarta (Indonesia) join the list of the 10 largest urban agglomerations projected for 2000, replacing Buenos Aires, Seoul and Rio de Janeiro. Dhaka (Bangladesh) is projected to make its first appearance on the list in 2010, in place of Los Angeles.

588. It currently takes a much larger absolute population to be part of the list of the 10 largest cities. In 1950, Calcutta, with 4.4 million people, was tenth on the list; by 1980, a population of 9.0 million (Beijing) was needed to be the tenth largest. Projections for 2000 show Los Angeles, at 13.2 million people, as the tenth largest urban agglomeration. By 2010, Jakarta, with a projected population of 17.2 million, will be in tenth place.

589. The geographical distribution of the 10 largest urban agglomerations continues to shift, with more cities from Asia expected to appear on the list with each decade. In 1970, Asia was home to four of the 10 largest urban agglomerations (Tokyo, Shanghai, Osaka and Beijing). Projections show that number increasing to five in 2000 and to six in 2010, with the addition of Seoul and Jakarta in successive decades. The Latin American share of the list declines, from four in 1990 to two in 2010 (São Paulo and Mexico City). Northern America and Africa account for the remaining urban agglomerations, with one on each continent projected for 2010 (New York and Lagos, respectively). Lagos will be the first African city to be among the 10 largest cities in the world. Two European cities, London and Paris, were among the 10 largest in 1970, but by 2010, Europe will not be represented among the 10 largest cities.

590. In *World Population Monitoring, 1991*, the list of 10 largest cities was markedly different from that presented here, especially with regard to Tokyo and Mexico City. The population of Mexico City grew rapidly in the middle decades of the twentieth century (see box 23), mainly as a result of massive migration from rural areas into the city. Expected continued growth had resulted in projections that put that city at the top of the list of largest cities for 1990 and 2000. However, as the national census of Mexico in 1990 confirmed, the growth of the metropolitan zone during the 1980s was less than had been earlier predicted. As explicated by Camposortega-Cruz (1991), Mexico City was characterized by a sharp decline in fertility and reduced net in-migration due, among other things, to government and private policies of decentralization to the smaller urban centres.

591. Similarly, the projection of the population of the Tokyo urban agglomeration has been revised. Since 1960, the Tokyo agglomeration has spread farther out geographically to incorporate more and more districts contiguous to the Tokyo central city. In previous United Nations *Revisions*, data were not available to permit incorporation of those new districts into the agglomeration, and the estimated agglomeration growth was therefore substantially lower than was actually the case. For the *1992 Revision*, the United Nations has been able to estimate more truly the actual growth of the Tokyo agglomeration, because the Statistical Office of Japan provided a list of the cities, towns and villages that constitute the concept of urban agglomeration for Tokyo at each census year from 1960 to 1990. The earlier estimates projected the population of Tokyo at 18.1 million in 1990 and 19.0 million in 2000. It currently appears that the urban agglomeration of Tokyo had already reached a population of 25.0 million by 1990, and it is projected to be 28.0 million in 2000 and 28.9 million in 2010. Rather than making a brief appearance in 1980 at the top of the list of largest cities, as

BOX 23. MEXICO CITY

Mexico City is not the largest city in the world, but the challenges facing its people must be among the greatest of any urban agglomeration. Home to more than 15 million people, the capital city of Mexico experienced a rapid increase in the number of residents between 1950 and 1980, with an average annual growth rate of 5 per cent. From a population of 3.1 million in 1950, the city grew to 9.1 million in 1970 and 13.9 million in 1980. Growth rates have eased in recent years, but projections prepared by the United Nations show an expected 18 million residents by 2010.

The urban agglomeration is composed of a central area, known as the Federal District, and the 17 contiguous municipalities it has absorbed as the population grew and the city spread outward. Together they constitute the Mexico City Metropolitan Zone. Significant population deconcentration from the centre to the outer suburbs of the Zone has been occurring for more than a decade. Growth rates in the contiguous municipalities are still high, and their population is expected to outnumber that of the Federal District within a few years.

Air pollution is the most obvious urban problem in Mexico City, but crowded housing, traffic congestion and inadequate sanitation are also apparent. Emissions from motor vehicles and industrial pollutants are a threat to the health of urban residents, and efforts to improve air quality have had limited success. Situated in the Valley of Mexico and surrounded by high mountains, Mexico City forms a huge natural basin that collects and holds pollution.

The city has held primacy status for many years, being home to at least a quarter of the urban population of Mexico since 1950. Nearly one fifth of the total population live in Mexico City; it is more than five times as large as the next largest Mexican city, Guadalajara.

According to a United Nations policy study, governing Mexico City is extremely complex because of multiple agencies and overlapping jurisdictions; no single municipal authority has the power to implement a long-range plan. Most migrants come to the capital city from rural areas of the six surrounding states in the central region of Mexico, but some are attracted from poor states in the south. Efforts to control growth in Mexico City have included offering incentives to industry to locate outside the Metropolitan Zone and moving some governmental functions to other regions, but Mexico City is still the political and economic centre of the country.

was reported previously, Tokyo currently seems firmly entrenched at the top of the list, beginning in 1970 and projected to continue through 2010.

Growth, regional distribution, and size class of very large urban agglomerations

592. The number of very large urban agglomerations—that is, cities of 10 million population or more—is growing rapidly, especially in the less developed regions. In 1950, only New York had a population of 10 million; 20 years later, two other cities, Tokyo and Shanghai, had grown to this size. Shanghai was the first city from a less developed region with 10 million residents, but by 1990, nine of the 13 cities of this size were from the less developed regions. By 2010, it is expected that 26 urban agglomerations will have 10 million or more inhabitants, 21 of them in the less developed regions (table 55). Asia will be home to 14 of these very large cities; five will be in Latin America and two in Africa.

593. Except for Tokyo, and, to a lesser extent, Los Angeles, cities in the more developed regions have grown slowly in recent decades and are projected to continue to experience slow growth. In the less developed regions, however, 10 of the 21 cities with more than 10 million inhabitants in 2010 had fewer than 4 million in 1970.

594. When cities of from 5 million to 10 million inhabitants are considered, the number grew from 18 in the world in 1970 to 22 in 1990. Projections for 2010 anticipate 33 such cities by that date. The number in the more developed regions was constant at eight in 1970 and 1990, but it will slip to seven by 2010. By contrast, the less developed regions increased their number from 10 in 1970 to 14 in 1990. During this period, Asia began to dominate the inventory of cities with a population of from 5 million to 10 million. It shifted from having 5 of those cities in the less developed regions in 1970 to having 11 out of 14 in 1990. Projections for 2010 show an additional 12 cities in that size class in the less developed regions. Asia is expected to be home to 17 such cities at that date, with Africa having six and Latin America three. In Africa, the high urban growth rates and rapid urbanization will result in eight cities with 5 million or more by 2010, with two of them—Cairo and Lagos—over 10 million. A second Egyptian city, Alexandria, will exceed 5 million by 2010, but the five additional large cities are all in different countries. They are Algiers (Algeria), Tripoli (Libyan Arab Jamahiriya), Libreville (Gabon), Abidjan (Côte d'Ivoire) and Casablanca (Morocco).

Growth rates of cities

595. The increase in the population size of cities becomes more understandable when the underlying rates of growth are examined. Table 56 shows the average annual growth rates of the 26 largest cities (population of 10 million by 2010) for two 20-year periods, 1970-1990 and 1990-2010. In general, urban growth rates in the the more developed regions are much lower than those in the less developed regions. In most cases, the average annual growth is 1 per cent or less for cities in the more developed regions. Even cities that experienced relatively high rates of growth during 1970-1990 are expected to show much lower growth—rates of 1 per cent or less—between 1990 and 2010. Tokyo grew at a rate of more than 2 per cent per annum during 1970-1990, but projections find only 0.7 per cent annual growth to 2010. In the United States, Los Angeles showed high growth, almost 1.6 per cent during 1970-1990; it falls to just under 1 per cent for the next two decades. Some cities—for example, New York in 1970-1980 and London in 1970-1990—actually had negative growth rates. In the Russian Federation,[3] two cities, Moscow and St. Petersburg, grew at rates of about 1.2 per cent in the 1970s and 1980s, but both are projected to have growth rates of about 0.7 per cent during the next two decades. Many urban agglomerations in the more developed regions—for example, Osaka, Paris, London, Essen and Milan—have virtually stopped growing; their projected rates for 1990-2010 are all under 0.2 per cent.

596. The less developed regions exhibit significantly higher rates, as well as a larger range of rates, than the more developed regions. São Paulo, Brazil, grew at 4.1 per cent per annum between 1970 and 1990 (box 24), and Lagos grew at 6.7 per cent per annum during the same period. Both those rates describe extremely rapid growth. The rate for São Paulo implies a doubling time of just under 17 years, whereas Lagos would double in size in a little more than 10 years, if such a rate were sustained.

597. Projections for the future show that some cities, particularly those in Southern Asia, are expected to continue to have high growth rates at least until 2010. All the succeeding large cities in Southern Asia have current growth rates of 3.5 per cent or more and all are expected to maintain rates of about 3 per cent or higher until 2010—Bombay, Delhi, Karachi, Dhaka, Lahore, Hyderabad and Bangalore. Six other large cities outside Southern Asia that are also expected to continue to experience high rates of growth to 2010 are Jakarta, Metro Manila, Bangkok, Teheran, Istanbul and Lagos. All, except Lagos, are in Asia.

TABLE 55. NUMBER OF URBAN AGGLOMERATIONS WITH 5 MILLION OR MORE, 1970, 1990 AND 2010

Region	*10 million+*			*5 million-10 million*			*Total*		
	1970	*1990*	*2010*	*1970*	*1990*	*2010*	*1970*	*1990*	*2010*
World total	3	13	26	18	22	33	21	35	59
Less developed regions	1	9	21	10	14	26	11	23	47
Africa	0	0	2	1	2	6	1	2	8
Asia[a]	1	5	14	5	11	17	6	16	31
Latin America	0	4	5	4	1	3	4	5	8
More developed regions	2	4	5	8	8	7	10	12	12
Europe	0	0	0	4	5	5	4	5	5
Japan	1	2	2	1	0	0	2	2	2
Northern America	1	2	2	2	1	1	3	3	3
Russian Federation[b]	0	0	1	1	2	1	1	2	2

Source: World Urbanization Prospects: The 1992 Revision (United Nations publication, Sales No. E.93.XIII.11).

[a]Excluding Japan.

[b]Prior to 24 December 1991, the area that is currently the sovereign State of the Russian Federation was part of the former USSR.

TABLE 56. AVERAGE ANNUAL RATE OF CHANGE IN POPULATION DURING 1970-1990 AND 1990-2010 FOR URBAN AGGLOMERATIONS WITH 10 MILLION OR MORE INHABITANTS IN 2010

(Percentage)

Agglomeration and country	*Annual rate of change*	
	1970-1990	*1990-2010*
Bangkok, Thailand	4.12	2.93
Beijing, China	1.48	2.51
Bombay, India	3.72	3.45
Buenos Aires, Argentina	1.54	0.89
Cairo, Egypt	2.41	2.21
Calcutta, India	2.20	1.90
Dhaka, Bangladesh	7.38	4.91
Delhi, India	4.20	3.23
Istanbul, Turkey	4.24	2.98
Jakarta, Indonesia	4.27	3.13
Karachi, Pakistan	4.67	3.81
Lagos, Nigeria	6.71	5.01
Lima, Peru	3.97	2.21
Los Angeles, United States of America	1.56	0.97
Metro Manila, Philippines	4.61	2.96
Mexico City, Mexico	2.55	0.89
Moscow, Russian Federation[a]	1.21	0.68
New York, United States of America	−0.04	0.35
Osaka, Japan	0.55	0.06
Rio de Janeiro, Brazil	2.21	0.98
São Paulo, Brazil	4.05	1.60
Seoul, Republic of Korea	3.63	1.13
Shanghai, China	0.93	2.39
Teheran, Iran (Islamic Republic of)	3.52	2.90
Tianjin, China	2.86	2.65
Tokyo, Japan	2.09	0.73

Source: World Urbanization Prospects: The 1992 Revision (United Nations publication, Sales No. E.93.XIII.11).

[a] Prior to 24 December 1991, the area that is currently the sovereign State of the Russian Federation was part of the former USSR.

BOX 24. THE UNPLANNED GROWTH IN SÃO PAULO

The Brazilian city of São Paulo had spectacular rates of population growth during the 1950s and 1960s and was transformed from a relatively small city of 2.4 million people in 1950 to a sprawling urban agglomeration of 8.4 million in 1970. By 1990, São Paulo was a mega-city—the second largest urban agglomeration in the world and the home of 18.1 million inhabitants. The recent history of São Paulo illustrates some of the perils of rapid urban growth and the difficulties of implementing policies that attempt to introduce order into chaotic and unplanned growth.

São Paulo was founded in the sixteenth century, but it began to grow only when it became the market centre for the newly cultivated export crop of coffee at the beginning of the nineteenth century. Manufacturing industries —at first to serve agriculture—became established in the early 1900s; and further growth was fuelled by profits from coffee growers, the effects of isolation in two world wars, the availability of cheap energy, a well-developed transport network and the influx of educated immigrants. By 1950, with Government encouragement, São Paulo had become the main centre of manufacturing in Brazil.

During the 1950s, the annual growth rate of São Paulo exceeded 6.6 per cent, and about 2.3 million inhabitants were added to the population. The rate slowed to 5.4 per cent per annum during the 1960s, but this rate still resulted in a gain of nearly 3.4 million new residents, as the population swelled from 4.7 million to 8.1 million in just one decade.

In the 1970s, however, the Brazilian "economic miracle" began to fade, and the economy of São Paulo suffered. The industrial base dwindled, and economic activities were moved out of the metropolitan region. The growth rate decelerated, inmigration slowed to a trickle and prosperity turned to poverty for some Paulistas. This decline in economic fortunes had reverberations in the settlement patterns of the city. During the 1980s, some middle-class residents could no longer afford to live in the affluent areas of the central city, so they moved to the less expensive periphery. At the same time, the poorest residents moved to the inner city and lived in crowded multi-family tenements called *corticos* (literally, beehives).

Public housing for low-income residents of São Paulo has been a massive failure; and the result has been the haphazard and illegal development of vacant plots of land by squatters, who build their own structures, often on environmentally fragile land. These *favelas* have been the subject of years of oscillating government policy, but the Government has finally accepted the inevitability of the *favelas* and has begun to upgrade and legitimize them, extending to them such essential municipal services as water-supply and electricity. A recent assessment estimated that 7.7 million of the residents of São Paulo lived in substandard housing: 1 million in *favelas*; 3 million in *corticos*; 2.4 million in illegal developments on the periphery; and another 1.3 million in other types of precarious housing.

Land use in São Paulo reflects decades of chaotic development. During the period of rapid industrialization, land was developed without proper infrastructure. The consequences of the current urban accretion are many and complex. For example, landfills are badly situated, and leachates from one dumping site have contaminated tributaries leading to a major reservoir. The system of arterial highways laid out in the 1930s assured the domination of motor vehicles, and today there are more than 3 million private motor-cars and lorries in the metropolitan area, contributing to air pollution. The urban plans and ordinances that have been adopted apply only to buildings and lots in the "legal city"; they ignore the reality of unauthorized development that has sprung up to fill the interstices. Some planners have pointed out that a master plan that does not take into consideration the reality of the entire city is merely a paper plan that is destined to fail.

598. A few cities in the less developed regions that had high rates of growth between 1970 and 1990 are expected to grow much more slowly between 1990 and 2010. São Paulo is expected to decline from 4.1 to 1.6 per cent per annum (this is still a higher growth rate than that of any of the largest cities in the more developed regions). Mexico City and Seoul are also expected to moderate their growth over the next two decades, from 2.6 to 0.9 per cent per annum for Mexico City and from 3.6 to 1.1 per cent for Seoul. Tokyo, which grew rapidly in 1970-1990 for a city in a more developed region, will also show more moderate growth in the near future, shifting from a 2.1 per cent annual growth rate in 1970-1990 to 0.7 in 1990-2010.

Concentration of population in the largest cities

599. The urban structure of a country can be seen as a rough measure of the level of development. The concentration of the urban population in a country in a single very

large city is known as primacy. In general, the predominance of a single mega-city in the hierarchy of urban places in a country is characteristic of less developed regions. In the more developed regions, the pattern is more likely to show a number of large cities, each with a relatively small percentage of the total urban population in the country.

600. Table 57 shows the primacy of the largest cities within the structure of urban places. Data are presented for the 26 cities projected to have 10 million or more inhabitants by 2010. The figures show the percentage of the urban population living in the largest urban agglomerations of a country.

601. Seven of the 26 largest urban agglomerations had more than 30 per cent of the urban population of the country residing in a single city in 1990—Bangkok, Buenos Aires, Cairo, Dhaka, Lima, Metro Manila and Seoul. All those cities are in the less developed regions; four are in Asia. In 1990, Bangkok had more than half (58.3 per cent) of the urban-dwellers in Thailand. The share of Bangkok has declined since 1970, when it had nearly two thirds of the urban population, and it is projected to decline still further by 2010. Two other urban agglomerations had more than 40 per cent of the urban population of the country in 1990: Lima (43.1 per cent); and Buenos Aires (41.1 per cent). Lima had increased its urban share between 1970 and 1990, whereas Buenos Aires lost urban share during those two decades. Both cities are expected to lose some of their urban share by 2010.

602. Four cities, three in Asia and one in Africa, had between 30 and 40 per cent of the urban population in 1990. A third of the urban population of the Philippines lived at Metro Manila, and slightly more than that percentage of the urban populations of the Republic of Korea, Bangladesh and Egypt were inhabitants of Seoul, Dhaka and Cairo, respectively. In the period 1970-1990, two of those cities, Metro Manila and Dhaka, had increased their urban share substantially, Metro Manila by 4.8 percentage points and Dhaka by 5.6. But all four cities are expected to lose urban share between 1990 and 2010.

TABLE 57. PERCENTAGE OF URBAN POPULATION LIVING IN AGGLOMERATIONS WITH 10 MILLION OR MORE INHABITANTS IN 2010, DATA FOR 1970, 1990 AND 2010

Agglomeration and country	*1970*	*1990*	*2010*
Bangkok, Thailand	65.49	58.34	52.1
Beijing, China	5.58	3.6	2.97
Bombay, India	5.3	5.66	6.07
Buenos Aires, Argentina	44.79	41.14	37.57
Cairo, Egypt	38.22	37.48	33.38
Calcutta, India	6.31	4.97	3.91
Dhaka, Bangladesh	29.62	35.2	32.65
Delhi, India	3.22	3.78	3.88
Istanbul, Turkey	20.54	19.07	18.14
Jakarta, Indonesia	19.07	17.35	15.77
Karachi, Pakistan	19.07	21.01	18.94
Lagos, Nigeria	17.88	20.29	20.91
Lima, Peru	38.65	43.05	41.26
Los Angeles, United States of America	5.55	6.09	5.84
Metro Manila, Philippines	28.55	33.32	32.24
Mexico City, Mexico	30.52	24.6	18.64
Moscow, Russian Federation[a]	5.33	4.86	4.39
New York, United States of America	10.73	8.54	7.23
Osaka, Japan	12.63	11	9.95
Rio de Janeiro, Brazil	13.16	9.76	8.05
São Paulo, Brazil	15.07	16.16	15.08
Seoul, Republic of Korea	40.88	35.09	32.41
Shanghai, China	7.69	4.45	3.58
Teheran, Iran (Islamic Republic of)	27.62	20.09	16.37
Tianjin, China	3.6	3.06	2.59
Tokyo, Japan	22.16	26.24	27.14

Source: World Urbanization Prospects: The 1992 Revision (United Nations publication, Sales No. E.93.XIII.11).

[a] Prior to 24 December 1991, the area that is currently the sovereign State of the Russian Federation was part of the former USSR.

603. At least one fifth of the urban residents of their country lived in five other cities in 1990. The urban agglomerations with 20-30 per cent of urban populations, in descending order of concentration, were Tokyo, Mexico City, Karachi, Lagos and Teheran. All except Tokyo were in the less developed regions. Those cities show different patterns of concentration during the period 1970-2010. Tokyo increased its share rapidly between 1970 and 1990 and is expected to continue to increase, although more slowly, into the next century. Lagos also shows increasing concentration over the four decades, although the increases are not large. Mexico City, however, seems to be losing primacy rapidly—falling from 30.5 per cent of the Mexican urban population in 1970 to 24.6 in 1990 and to a projected 18.6 in 2010. Teheran, too, declined rather rapidly over the time period, from 27.6 per cent in 1970 to 20.1 per cent in 1990; its share in 2010 is projected to be about 16.4 per cent. Of those five cities with more than one fifth of the urban population of the country in 1990, only Karachi shows an inconsistent pattern, increasing the urban share in 1970-1990 and losing it during 1990-2010.

604. Lastly, three other cities had urban concentrations of 15-20 per cent in 1990: Istanbul at 19.1 per cent, Jakarta at 17.4, and São Paulo at 16.2. All those cities showed patterns of small decline in urban share in both time periods, except for São Paulo, which gained a little between 1970 and 1990 but hovered around 15 per cent of the Brazilian urban population throughout the period. The other very large city in Brazil, Rio de Janeiro, lost urban share between 1970 and 2010.

605. The data presented above seem to confirm the prediction that the urban structures of the less developed regions are more likely to be dominated by a single large city. Of the 15 urban agglomerations with at least 15 per cent of the urban population of the country in 1990, one (Tokyo) was in a more developed region. However, it does seem that further concentration may be on the decline: 13 of the 15 cities are expected to lose urban share between 1990 and 2010, whereas only eight of them lost urban share from 1970 to 1990.

606. At the other end of the concentration scale, six of the 26 largest cities had fewer than 5 per cent of the urban population in 1990. Of these, only Moscow is in a more developed region. The other five are all in China (Shanghai, Beijing and Tianjin) or India (Calcutta and Delhi). This statement seems contrary to the foregoing discussion about urban primacy, which suggested that cities with low concentrations were more likely to be in the more developed regions. But China and India, the two most populous countries of the world, have such large populations and territories that they can support regional primacy, as well as a network of smaller cities and towns. In China, the three largest cities together had only 11.1 per cent of the urban population in 1990. Projections show each of those three largest cities losing a small percentage of its share, so that together, their share of the urban population is projected to decline to 9.1 per cent of the country total by 2010. At the same time, the number of very large cities in China is expected to increase, so that by 2010, in addition to the three cities with more than 10 million people, China will have eight other cities with a population of at least 5 million.

607. India also has three cities among the 26 largest, two of which had fewer than 5 per cent of the total urban population in 1990. Bombay, a city with 12.2 million persons in 1990, had the highest concentration, 5.7 per cent of the urban population. The three largest Indian cities together were home to only 14.4 per cent of the urban population, fewer than one sixth of the total urban population. It is expected that only small fluctuations in urban share will be seen by 2010, when the three largest cities in India are projected to have 13.9 per cent of the urban population.

608. The trend over time for those cities with low urban shares is almost invariably towards lower concentrations. Although the range is much smaller at the low end of the scale, the trend seems fairly clear: five of the six cities discussed above lost urban concentration between 1970 and 1990, and all five are expected to continue to decline between 1990 and 2010. Only Delhi, with 3.2 per cent of the urban population in 1970, shows small increases for both time periods.

609. When projections for 2010 are compared with figures for 1990, four of the 26 largest urban agglomerations are expected to have higher concentrations of the urban population of their country in 2010: Tokyo, Bombay, Lagos and Delhi. This does not mean that most of those very large cities will stop growing; some will continue to grow rapidly, but at the same time other urban places in the country are expected to grow and increase their share of the urban population. Such cities as Dhaka and Jakarta are expected to lose some of their share of the urban population while growing rapidly in population size between 1990 and 2010. Dhaka is projected to increase from 6.6 million in 1990 to 17.6 million in 2010, whereas Jakarta is expected nearly to double during the same period, from 9.2 to 17.2 million. The national percentage of urban-dwellers for both those cities, however, is expected to decline.

Percentage of population (urban and total) living in large cities

610. The focus of discussions about urban places and urbanization frequently centres on very large cities, but table 58 and figure 42 show that most people—even most urban people—do not live in the largest cities. In 1970, about two thirds of all urban dwellers in the world lived in cities and towns with fewer than 1 million inhabitants. Since then the trend has been slowly downward, but projections for 2010 show only a small change in the percentage urban in smaller cities. The next largest class size—that is, cities between 1million and 5 million inhabitants—had about one fifth of all urban-dwellers, and this proportion changed little from the 1970 to the 2010 projections.

TABLE 58. PERCENTAGE OF URBAN AND TOTAL POPULATION LIVING IN URBAN AGGLOMERATIONS IN 1970, 1990 AND 2010

Population	*1970*	*1990*	*2010*
A. *Urban population*			
10 million or more	3.2	7.8	11.2
5 million – under 10 million	9.6	6.9	5.6
1 million – under 5 million	19.5	21.0	19.2
Under 1 million	67.6	64.3	63.9
TOTAL	100.0	100.0	100.0
B. *Total population*			
10 million or more	1.2	3.3	5.9
5 million – under 10 million	3.5	3.0	3.0
1 million – under 5 million	7.1	9.1	10.2
Under 1 million	24.7	27.7	33.7
Total urban	36.6	43.1	52.8
Total rural	63.4	56.9	47.2
TOTAL	100.0	100.0	100.0

Source: World Urbanization Prospects: The 1992 Revision (United Nations publication, Sales No. E.93.XIII.11).

611. By contrast, the percentage urban in the very largest cities (10 million or more) has been climbing rapidly, from a very small 3.2 per cent in 1970 to 7.8 in 1990 and a projected 11.2 in 2010. These gains are seen at the same time the number of the very largest cities is increasing from 3 (1970) to 13 (1990) to 26 (2010). The percentage of total world population currently living in the very largest cities has grown as well, so that by 2010, about 6 of every 100 people will live in the largest cities in the world.

612. The second size rank of cities, from 5 million to 10 million, will grow in number (from 18 to 32 between 1970 and 2010), but this group is expected to lose its share of urban population, declining from 9.6 to 5.6 per cent. Its share of total world population will remain steady, at about 3 per cent in 2010.

B. POPULATION DISTRIBUTION AND URBANIZATION POLICIES

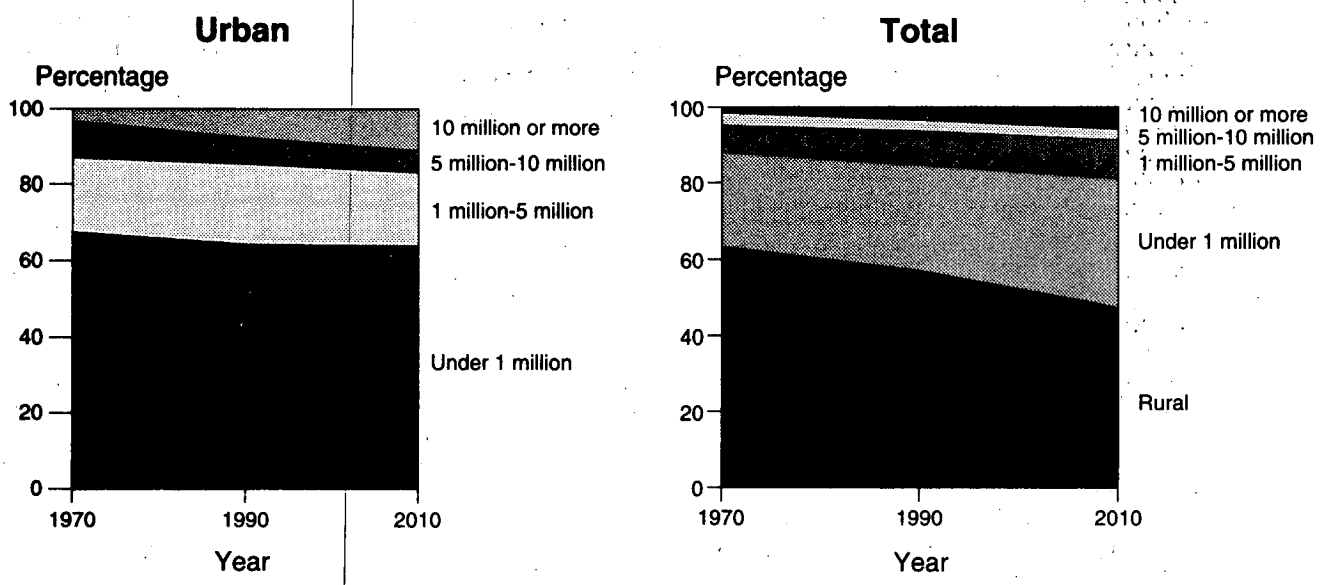
613. In 1992, only 50 countries out of 190 considered their patterns of population distribution to be satisfactory. Nearly half (44 per cent) of those were more developed countries. In contrast, 75 countries, 91 per cent of which were developing countries, considered that their patterns of population distribution required major change (see figure 43). Sixty-five countries—42 per cent of which are in the more developed regions and 58 per cent in the less developed regions—desired minor changes in their patterns of population distribution.

614. Partially in response to the failure of the growth-centre strategies pursued by many developing countries in the 1960s and early 1970s, many countries have adopted strong rural-oriented spatial policies. Particularly in sub-Saharan Africa, it has been almost universally believed that investments in rural infrastructure and rural development will cause urban pressures to evaporate by slowing the rate of rural-urban migration, or—a much more extreme argument—by attracting urban residents back to the rural areas. Indeed, at the global level, many Governments have adopted policies designed to slow or reverse internal migration flows (see figure 44). To date, however, there is little evidence in Africa or elsewhere indicating the success of that approach. Rural development strategies are critically important in developing countries to expand food production and to improve agricultural productivity—not because they offer a solution to the problems of urbanization.

615. In many developing countries, population distribution policies are largely synonymous with measures to reduce or even to reverse rural-urban migration, with the aim of controlling the growth of the primate city or other large metropolitan areas. Indeed, in 1992 this was the objective of about 70 per cent of Governments in Africa, Asia and Latin America. In practice, most policies to slow the growth of large metropolitan areas have been ineffective. Even in centrally planned economies, such as China, which for years have utilized residential controls, ration cards and so forth, there are large "floating" populations of unauthorized migrants in all of the major cities.

616. In addition to slowing primate-city growth, many Governments throughout the developing world have strongly endorsed the concept of promoting small and inter-

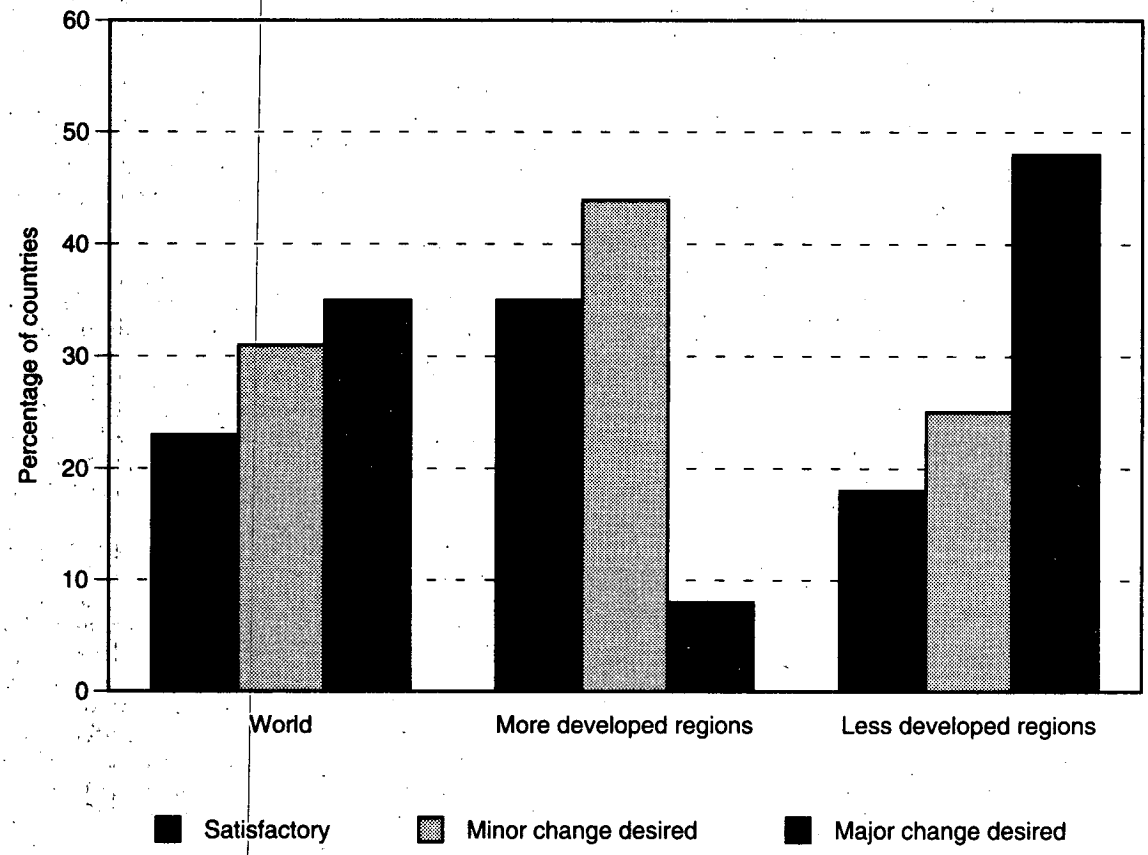
Figure 42. Percentage distribution of urban and total population by city-size class, 1970-1990 and 2010



Source: Table 58.

Figure 43. Spatial distribution, 1992: Governments' view of appropriateness

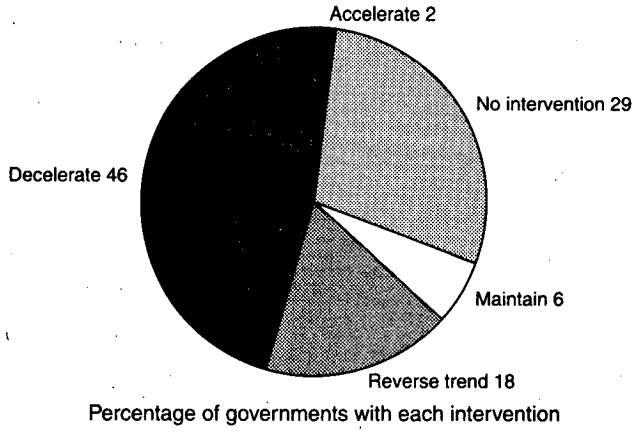
(Percentage)



Sources: Population Policy Data Bank maintained by the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat.

Figure 44. Internal migration, 1992: Governments' policies

(Percentage)



Source: Population Policy Data Bank maintained by the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat.

mediate-sized cities. However, whereas there is a broad consensus on the desirability of promoting small and intermediate-sized cities, how to go about it is far less clear. A number of countries, including Egypt and several of the oil-exporting countries in Western Asia (e.g., Saudi Arabia, Kuwait and the United Arab Emirates) have promoted the development of new towns. The pace of development of those new towns has generally been slow, however, and their contribution to population absorption has probably been smaller than could have been achieved by spending an equivalent amount on improving infrastructure in existing towns. Similarly, a number of developing countries have attempted to build new capitals. None of those capitals has much prospect for success as an instrument of population redistribution, and in many cases construction has become stalled or has been cut back. Regional development policies for lagging regions, border-region strategies and land colonization schemes also have been employed in a number of developing countries, although the impact of those policies on national population redistribution has been almost negligible.

617. It is not too strong to state that despite Governments' concerns over the past two decades about their patterns of population distribution, population distribution policies have become somewhat discredited, mainly because there have been many more failures than successes. Frequently, the goals of population distribution policies have been unrealistic, leading to disenchantment and eventual abandonment of those policies. Another problem has been that population distribution policies have not been spatially selective, even within particular groups of settlements, mainly because policy makers have found it difficult to handle the political problems arising from giving resources to some areas to promote growth while withholding resources from other areas.

618. A further problem has been the fact that there has been insufficient continuity in many developing countries in the implementation of population distribution policies, in part because the planning horizon for population distribution policies is typically longer than for other national policies (15-20 years, rather than the five-year horizon for national development plans). Lack of consistency among explicit population distribution policies and implicit policies (i.e., macro-policies and sectoral policies that may have harmful spatial impacts) has also been a problem. Lastly, because only a finite set of population distribution policy instruments are available, these instruments are used across a broad spectrum of countries. Governments have sometimes "borrowed" approaches from other regions without adapting them to their specific economic, social and cultural circumstances.

1. *Africa*

619. In 1992, about two thirds (67 per cent) of the Governments in Africa considered that their patterns of population distribution required major change. Only 15 per cent of the countries considered their patterns of population distribution to be satisfactory. Another 17 per cent desired minor change.

620. In sub-Saharan Africa, the combination of high aggregate rates of population growth, relatively low levels of urbanization and high urban growth rates implies a problematic urban future for many countries in the region. The relation between economic development and urbanization is much weaker in Africa than elsewhere in the developing world. Part of the responsibility for breaking this link lies with nature, part with man. Currently, a number of countries in sub-Saharan Africa are affected by chronic drought, which has seriously impaired the capacity of rural areas to sustain the rural population. One consequence has been population and refugee movements, which have in some cases resulted in artificially high rural-urban migration rates which have little to do with the economic pull of urban areas. Similarly, in some countries, the process of desertification has led to the settlement of formerly nomadic groups in towns.

621. The role of man also has been significant. Several countries in Africa are being or have been affected by costly civil wars or break-away independence movements, which have disrupted settlement patterns and absorbed scarce capital resources which might have been more constructively used for economic development purposes. More generally, political instability in many countries has resulted in a low degree of priority assigned to human settlement policies, both rural-oriented and urban-oriented.

622. In Eastern Africa, the Government of Mozambique reported that it was studying the ongoing process of resettlement of its refugees and displaced persons, in order to bring patterns of population distribution more in line with its development objectives. The policy of the Government of Uganda has been to encourage balanced rural and regional

development with a view to reducing migration to urban areas. Development planning has also been decentralized to the district and subdistrict level.

623. In Northern Africa, the Moroccan *Plan Orientation, 1988-1992* is devoted in large part to regional development. The plan outlines measures to reduce rural-urban migration and to limit the attraction of Greater Casablanca, mainly through the development of other large and medium-sized cities and the promotion of growth centres, where small and medium-sized enterprises will attract rural population in search of employment.

624. In Southern Africa, the Government of Namibia reported in its response to the Seventh United Nations Population Inquiry among Governments that it considered the current rate of population growth in metropolitan areas to be too high. It maintained that rural areas must be developed to make them sustainable and viable, so that "there will be no need for people to flock to the urban areas". Most of the population of Namibia live in rural areas: only 28 per cent were urban-dwellers in 1990.

625. In Western Africa, Nigeria has adopted an ambitious and costly strategy for adjusting patterns of population distribution. The centre-piece of its strategy is the development of a new national capital, Abuja, in a new Federal Capital Territory in a remote rural area in central Nigeria—a site that was chosen mainly for its location in a politically neutral area. The main aim of the new capital is obviously to slow the growth of Greater Lagos, the largest city in sub-Saharan Africa and one of the most congested cities in the developing world.

626. One of the objectives of the population policy of Senegal is to improve the quality of life in all regions of the country in order to achieve a more balanced distribution of population within the national territory and to slow the rural exodus. The Government reported that it had assigned priority to revitalization of the secondary cities, controlling unplanned urban growth and upgrading existing substandard urban areas. The Government is also concerned with promoting agricultural productivity in rural areas in order to retain the rural population.

627. The Government of Sierra Leone reported that it intended to design and implement programmes of integrated rural-urban development in order to moderate and orient rural-urban migration. Rural development programmes will emphasize such measures as provision of safe water-supply, power supply and adequate and accessible health-care facilities.

2. *Asia*

628. Since the early 1960s, national political leaders in Asia have expressed strong dissatisfaction with the patterns of population distribution. As of 1992, only six Governments in Asia (16 per cent of the total) considered their patterns of population distribution to be satisfactory; of those countries, one is a small city-State (Singapore) and three are small countries located in Western Asia (Bahrain, Qatar and the United Arab Emirates). Half of the Governments in Asia desired minor changes in their patterns of population distribution and slightly over one third (34 per cent) desired major change.

629. Whereas during the 1960s and 1970s many Governments in Asia attempted to limit the expansion of their largest metropolitan areas, to slow the pace of rural outmigration and to achieve a more "balanced" pattern of urban development, most Asian development plans currently recognize that rapid urbanization is inevitable and that large metropolitan areas (mega-cities and mega-urban regions) will continue to expand.

630. The experiences of a number of countries in Eastern Asia suggests that only when a broad variety of reinforcing economic, social and physical policies were pursued simultaneously and in conjunction with appropriate sectoral policies over a long period of time, did they seem to have any impact on slowing the growth of the largest cities. China is one of the few countries in Asia to have slowed the growth of its largest metropolitan areas, temporarily at least. However, the Government of China did so by means of strong political, economic and social controls that are unlikely to be replicated in other Asian countries. Moreover, even in China, the Government acknowledges the existence of huge "floating populations" in its largest cities.

631. Another country in Eastern Asia, the Republic of Korea, is one of the few other countries in Asia that has seriously attempted to redistribute urban population and economic activities from its primate city to other parts of the country. A combination of incentives and regulations was employed to control population growth and to disperse industries from Seoul. At the same time, the Government used its own investments in overhead capital, social services, physical facilities and directly productive activities to make secondary cities more attractive for both large- and small-scale industries. Over the years, the Government of the Republic of Korea experimented with programmes for redirecting people and educational, industrial and commercial activities to secondary urban centres. Among other things, it restricted the expansion of higher educational institutions in Seoul and required branches of major universities to locate in cities other than the capital. The Government also attempted to make it more difficult and costly for large industries to locate at Seoul. Unfortunately, assessing the effectiveness of those policies is difficult, and how much of the change in the urban settlement system in the Republic of Korea can be attributed to spatial policies and how much to national economic policies is still unclear.

632. In a number of countries in South-eastern Asia, controls on the growth of the largest cities were less effective. Efforts in Indonesia and in the Philippines to restrict the entry of migrants into national capitals or limit their access to urban services, and the experience of creating industrial growth poles in other Asian countries, had only marginal effects on slowing the growth of the largest cities. Likewise, the transmigration programme in Indonesia had little real impact on reducing either the rate of population growth in Java or migration to Jakarta. Although the Federal Land Development Authority (FELDA) resettlement schemes in Malaysia were more successful economically, they did not provide sufficient employment to retain much of the second-generation population; indeed, many young people have moved off the estates to look for work in the towns, where incomes are higher.

633. By the beginning of the 1980s, most Asian development plans admitted the futility of trying to reverse urbanization or to stop the growth of large metropolitan areas. The emphasis during the 1980s was on diffusing urbanization by strengthening the economies of secondary and intermediate urban centres and smaller towns with growth potential. During the 1990s, it is likely that many Governments in Asia will supplement their urban diffusion policies with new strategies for improving the efficiency of metropolitan economies, promoting economic growth and employment expansion throughout the settlement system and decentralizing more administrative and financial responsibilities for

urban development to local governments and the private sector.

634. In its reply to the Seventh Inquiry, the Government of the Philippines reported that it had adopted a number of indirect policies to modify patterns of population distribution. These measures included policies for reversing the urban bias in development planning, industrial dispersal, promotion of regional growth centres and reorientation of the educational system so as to reverse rural-urban migration and encourage Filipinos to move back to the provinces.

635. In its reply to the Seventh Inquiry, the Government of Viet Nam reported that its policy of resettling millions of its citizens in sparsely populated parts of the country, the New Economic Zones, remained in effect.

636. In Southern Asia, the Government of Bangladesh reported that in order to reduce rural-urban migration, it was pursuing a policy of improving the rural economy through the development of human resources. One important aspect of this policy is to bring women into the mainstream of development planning. The Government of Pakistan reported that it was making a major effort to improve conditions in rural areas. Electrification of 45 per cent of the villages had been completed and 20 per cent more are to be electrified by 1998. The communications network was being improved, and the Indus Highway and the Motor Way were being built to link rural areas with all urban centres. Industries were being dispersed, and agro-based industries also were being developed in rural areas. Health facilities were being increased to cover rural areas through development of village-based infrastructure. The Government reported that all those measures were expected to reduce migration to urban areas and to help reduce pressure and congestion in the large metropolitan cities.

637. In Western Asia, the Government of the Islamic Republic of Iran reported that it sought to minimize rural-urban migration by raising rural incomes and improving social conditions and welfare of the population in rural areas. The Government of Israel has made significant efforts to disperse the population throughout the national territory by offering incentives to families to relocate from the large urban centres to the new towns and, in recent years, to settlements in the occupied West Bank and the Golan Heights. These policies have met with limited success, however, and large desert areas in the Negev are still uninhabited, except by nomadic Bedouin tribes.

3. *Europe*

638. Europe has the highest proportion of Governments that considered their patterns of population distribution to be satisfactory, 31 per cent. Whereas 58 per cent of Governments reported that they desired minor changes in their patterns of population distribution, only four countries —representing 11 per cent of the total—desired major change.

639. In Europe as a whole, population redistribution tendencies of the 1980s appear to have been very different from those of the earlier decades. The traditional shifts of population from rural to urban areas and from national peripheries to core regions (usually the capital) have faded markedly in recent years. Indeed, it has become common to talk of the "reversal" of migration trends in many of the developed countries, a phenomenon denoted by such terms as "counter-urbanization" "the metropolitan migration turnround" and "the rural population revival".

640. Regions in Europe experiencing net out-migration include two rather distinct groups. The first is heavily urbanized areas, including most of the major capital cities, e.g., London, Paris, Brussels and Copenhagen. The most severe losses occurred where urban decentralization was reinforced by industrial decline and the contraction of port-related facilities, such as in Liverpool and Glasgow. The other regions experiencing net out-migration were low-income rural areas. These areas are principally located in Southern Europe, e.g., Portugal, Greece and Turkey, especially in the rural hinterlands of capital cities and the larger agglomerations. Net out-migration was also characteristic of virtually all of Ireland, most of Finland and extensive areas of Sweden.

641. In Northern Europe, a number of significant changes have occurred in the countries that were part of the former Soviet Union. In its reply to the Seventh Inquiry, the Government of Estonia reported that, because of the uneven distribution of immigrants (from other parts of the former USSR), the urban system was highly unbalanced. Some urban centres had served as part of the urban system of the former USSR and not as part of that of Estonia (e.g., the naval base at Paldisky, the entire population of which had served military purposes, and the uranium factory city of Sillamäe). The Government of Estonia also reported that the departure of the Moscow-centred administration at Tallinn and the closure of many of its military industries had resulted in the decline of the city population.

642. With respect to population distribution in rural areas, the Government of Estonia plans to reverse some of the imbalances that occurred during the Soviet period, when the traditional farming economy was replaced by collective farms. This activity resulted in the concentration of the rural population, and more than half of the rural villages disappeared. The Government has formulated a policy to re-establish farming-based agriculture and to decentralize the rural settlement system.

643. The Government of Norway reported that the main objective of Norwegian regional development policy was to preserve the main features of the settlement pattern and to ensure equal living conditions for residents of all parts of the country. The main problem was the centralization of the population in the largest cities. Because population density in Norway was very low, centralization was seen as a major threat to rural life. The Government emphasized that a dispersed settlement pattern was also a prerequisite of effective and sustainable exploitation of natural resources.

644. The Government of the United Kingdom reported that it was concerned that past trends of decentralization and the policies that tended to reinforce them had, through the selective nature of migration, left the inner areas of the major cities with an unbalanced population structure. The Government, through its urban policies, was attempting to regenerate those areas by strengthening the local economy and improving the environment and social conditions, with the objective of encouraging people and firms to choose to live and invest there. There was no general policy to influence population levels in or migration to and from rural areas. However, Government policies to encourage growth and diversification of rural economies, improvements in the quality of life in rural communities and the conservation of rural heritage would have some indirect effects on population distribution. National policies in the United Kingdom are not designed to influence population and internal migration, although policies for reviving inner city areas and for promoting economic growth in poorer regions and parts of cities have implications for internal migration patterns—without this being their primary purpose. At the subnational level, the Government noted that population growth, struc-

ture and distribution were fundamental considerations in the preparation of development plans prepared by local planning authorities.

645. In Western Europe, the Government of Germany noted that current patterns of population distribution were considered to be satisfactory. However, the potential increase in migration from East (the former German Democratic Republic) to West (the former Federal Republic of Germany)—at least in the short and medium term—threatened to undermine that structure partially. In the light of the legal and social system in the united Germany, however, the Government noted that it was neither possible nor desirable for it to exert direct influence on such migration.

4. *Latin America*

646. The countries in Latin America continued to consider their patterns of population distribution to be largely unacceptable and to require major change, a perception that is related to the large number of primate cities in the major area and to related problems of urban management (see box 25). In 1992, only two countries in the major area as a whole, Barbados and Saint Lucia, considered their patterns of population distribution to be satisfactory; 73 per cent of the Governments considered that their patterns of population distribution required major change, whereas 21 per cent desired minor change.

647. In Central America, the Government of Nicaragua has been faced with the unplanned re-entry of more than 500,000 repatriates and displaced persons; this phenomenon was first handled by creating "development poles", but a sizeable proportion of the returning population settled spontaneously in other rural areas and especially in the largest urban centres.

648. Also in Central America, Mexico considered that it needed major changes in population distribution, and it has formulated a policy to strengthen regional development and redirect migrants away from the mega-city of Mexico City, where about one fourth of Mexican urban-dwellers live. The Government has identified micro-regions and subsystems of cities that function in an integrated way. Each micro-region is classified according to whether it has the economic potential for absorbing additional migrants, whether it can support only the natural increase of its current population or whether its resources are so limited that it cannot support even the inhabitants currently living there. The study has yielded information pertinent to all levels of government and has permitted the formulation of comprehensive policies with realistic goals. One goal is to strengthen the social and economic infrastructure in medium-sized cities so that they become more attractive to potential migrants. In rural areas, the focus is on integrating rural development to employ surplus agricultural workers and obviate the need for them to migrate to cities.

649. In South America, the Government of Bolivia reported that it is currently focusing on elaborating plans for urban development, integrating the population of frontier areas (which heretofore has largely depended upon transitory economic growth in neighbouring countries) and strengthening intermediate-sized cities. In its reply to the Seventh Inquiry, the Government of Brazil noted that over the past decade, there had been a decline in the rate of growth of the metropolitan areas of the country, more rapid growth of medium-sized cities, and especially of state capitals, and a slow-down in rural-urban migration. The Government noted that the major elements of its population distribution strategy over the past three decades had been the

BOX 25. URBAN GROWTH AND ENVIRONMENTAL ISSUES

Rapid population growth can overwhelm the capacity of a city to respond to the basic needs of its residents, but ignoring those needs can lead to serious—sometimes irreversible—environmental damage. This is the modern urban dilemma, especially in developing countries, where urbanization and economic development are relatively recent phenomena. A burgeoning population can put such pressure on resources that protecting the environment may appear to be an impossible luxury.

The sheer concentration of people, industrial activities and vehicles produces a wide variety of pollutants that can degrade the environment of a city and endanger the health of its residents. Some regional ecosystems put cities at greater risk. Mexico City, for example, is located in a valley surrounded by high mountains. More than half the time— and almost every night in autumn—thermal inversions capture pollutants in the air and trap them near the city. The wind rarely blows with enough force to clear the air in the city.

Linkages have been established between health and environmental pollution, although quantification of the relation is still under way. Water as an agent of disease transmission is common; such diseases range from typhoid fever and diarrhoeal disease to schistosomiasis and malaria. Worsening water quality was the cause of a resurgence of cholera, for the first time in this century, in Latin America in 1991. Whereas water-related diseases are a primary cause of infant and child mortality, air pollution typically causes long-term debilitating disease. Millions suffer from respiratory ailments, and some forms of cancer are exacerbated by air pollution.

Poor people are most often at risk for environmentally related diseases. They cannot afford to insulate themselves from sources of environmental pollution, and they are less likely to have piped water and sewerage connections. Sanitation is a major problem affecting water quality. At Manila, for example, the main sewer network was built early in the twentieth century to serve a population of 500,000. Today, only 11 per cent of the 9 million residents have a sewer connection; and in areas without coverage, the effluent leaks into water channels that drain into Manila Bay.

Many cities in the developing countries are growing so rapidly and in such an unregulated manner that they have no hope of keeping up with the sanitation needs of their population. In highly industrialized countries, the transition from traditional to modern types of environmental pollution took place over a period of a century or more, but the current developing countries are faced with advanced pollution problems before they have controlled traditional sources. One way to provide for the sanitation needs of a mega-city is to include elements of less advanced technology, such as small-bore sewers and pour-flush latrines. A mix of technologies to extend at least minimum services to the greatest number of people offers more flexibility at less cost.

Vehicle emissions are the major source of air pollution in cities all over the world, and motor-car ownership is rising as people express their preferences for personal mobility. Singapore has sharply curtailed growth of its vehicle population by imposing heavy taxes on motor cars, especially older ones, and by strictly controlling their purchase. Such social-engineering measures are effective, but they would be unacceptable in many places. More common policies involve improving public transport systems, building more efficient motor-car engines and using cleaner fuels.

transfer of the federal capital to the interior (Brasilia) in the 1960s, the Programme of National Integration, construction of the Trans-Amazon highway in the 1970s, settlement of Rondonia in the 1970s and 1980s, settlement of the western region of Parana, construction of the Belem-Brasilia highway and the Calha-Norte project.

650. The Government of Colombia reported that the National Plan for Rehabilitation had contributed to improving conditions in the rural areas and, indirectly, to reducing the displacement of population towards the urban areas, owing in large part to continuing violence in the countryside. The Government of Chile is concerned about the concentration of population in metropolitan Santiago, which is currently one of the most polluted cities in South America. It also seeks to achieve a better regional balance of the Chilean population.

651. In its reply to the Seventh Inquiry, the Government of Peru reported that it was greatly concerned about the displacement of population owing to civil unrest. Years of ongoing violence in the countryside had displaced some 400,000 persons, resulting in an intensive process of population redistribution and the concentration of population in certain cities, especially Lima. The Government reported that it had established the Special Commission for Population Displaced by Political Violence, which was formulating an action plan to address the needs of this vulnerable group. In addition, the Government reported that its National Population Programme, 1991-1995 included a subprogramme on decentralization of population policy, which was directed to improving the technical capacity of local governments in implementing population and development policies, as well as establishing regional population councils.

5. *Northern America*

652. In 1992, the Government of Canada took no official position on the suitability of the current spatial distribution of its population and had no policy to modify distribution. Canada supports the goal of regional development, which, it recognizes, may alter distribution patterns. The Government took no official position on urban growth or urbanization; the country had already reached a level of 77 per cent urban by 1990. The Government of Canada has adopted policies that are intended to improve the mobility of labour between regions. Such programmes as the Manpower Mobility Programme and the National Job Bank promote internal migration, although population redistribution is not their primary purpose.

653. The United States of America also stated no official position with regard to population distribution and internal migration in its response to the Seventh Inquiry. It recognizes that policies may have unintended consequences, some of which inadvertently impact settlement patterns. In the United States, the actions of state and local jurisdictions probably have more effect on settlement patterns than do national policies. Although the Government does not take an official position on internal migration, it does monitor significant problems and trends relating to urban development and growth; and it publishes its findings in the *National Urban Policy Report*, under the auspices of the Department of Housing and Urban Development.

6. *Oceania*

654. Oceania—a region that includes only 550,000 square kilometres of land amidst 30 million square kilometres of ocean—has experienced changing patterns of migration in recent years. As a rough generalization, the countries that constitute Polynesia are characterized by international emigration and the Melanesian States mainly by internal migration, whereas the Micronesian States are experiencing both patterns of migration along with the immigration of migrant workers.

655. Recent internal migratory movements have been dominated by movement away from small, remote islands, movement down mountains to more accessible coastal locations and movement to urban areas. Whereas migration in Oceania typically was characterized as circular mobility, movement is increasingly becoming more permanent, and there are currently third-generation urban residents in the area. This is explained in part by the role of education and the mass media in directing the perspectives of small societies outward.

656. In the Marshall Islands, migration from the outer islands to the urban centre of Majuro accounted for some 75 per cent of all internal migration between 1978 and 1988. Mobility is high among the Marshallese: the 1998 census found that 24 per cent of the population had moved between atolls during the period 1980-1988. Migration from outer islands to urban areas is often the first stage in a pattern of mobility that includes temporary residence and employment away from the islands. Under the Compact of Free Association, for example, citizens of the Marshall Islands are free to live and work in the United States of America. Other Pacific Islands, such as the Cook Islands and Samoa, have similar affiliations with New Zealand. Temporary out-migration of workers can relieve population pressure on local resources and serve as a source of income for an island. In Tonga, for example, remittances from overseas Tongans to their families constitute some 30 per cent of the gross domestic product of the country.

657. Urbanization in Melanesia reflects the colonial history of the region. Cities were unknown before the arrival of Europeans, and most of the current cities were established as ports and administrative capitals for colonial trading. Population redistribution from rural to urban areas has been accelerating during the past 25 years, partially as a result of the decline in commodity prices and the absence of incentive to stay in rural areas. Policies guiding internal migration are lacking in Melanesia, although in some areas economic development plans and family planning programmes have had indirect effects on population distribution.

658. Low levels of urbanization in Papua New Guinea camouflage the fact that its cities—especially Port Moresby and Lae—have grown rapidly since the mid-1960s, largely as a result of rural-urban migration. Population density varies greatly between regions of the country. A development plan in 1978 encouraged increased production and services in smaller towns to divert migrants from Port Moresby and Lae. High fertility and the continuing economic importance of children make it difficult to implement policies designed to limit population growth.

659. Solomon Islands has experienced substantial internal migration, both between islands and from rural to urban destinations, especially to the capital city of Honiara and the Guadalcanal Plains. High fertility, together with a lowered infant mortality rate, has resulted in rapid population growth, which has fuelled migration to urban areas. An attempt in the early 1980s to introduce a population policy to restrain population growth met with strong opposition and was not implemented. A policy formulated in 1987 by the Ministry of Health combined targets for reduced fertility with rural development and the growth of provincial centres to relieve population pressure on Honiara. However, there was little

support for the policy and little awareness of the consequences of rapid population growth.

660. Vanuatu is characterized by substantial internal migration; about one fifth of the population live somewhere other than the island of their birth. Migration, especially to the capital of Port Vila, appears to be shifting from rural-based circular movement to more permanent urban settlement. Some urban migrants are second-generation urban-dwellers; they have taken on characteristics of urban residents and are unlikely to abandon the city regardless of economic conditions there.

661. Urban growth in Vanuatu was greatly affected by changes in legislation in the early 1970s that made the country a tax haven. Within two years, Port Vila had 13 overseas banks and a large expatriate population, as well as new suburbs and a growing tourist industry. The Second National Development Plan, covering the period 1987-1991, saw no urgency in reducing the 2.8 per cent annual population growth rate; the Third Plan, however, for the period 1992-1996, describes fertility reduction as the only viable policy measure on a national level.

662. Fiji has the longest history of urbanization in Melanesia. Suva has continued to grow rapidly since the Second World War, but other urban areas are also gaining population. The 1986 census found considerable internal migration, especially from the outer islands to the urban and peri-urban areas of the main island. The economic policies of Fiji have encouraged industrialization, which will contribute to further urbanization and place additional pressures on infrastructure at Suva.

663. The two most populous countries of Oceania, Australia and New Zealand, together account for 77 per cent of the population of the major area. In contrast to the island countries of the Pacific, both Australia and New Zealand are highly urbanized—85 and 84 per cent, respectively. In its response to the Seventh Inquiry, the Government of New Zealand indicated that there was no official position on any of the questions pertaining to spatial distribution. Moreover, no policies had been formulated to influence internal migration patterns.

7. *Union of Soviet Socialist Republics (former)*

664. Prior to the breakup of the former Soviet Union, there was a general ban on settling in and sometimes even on temporarily going to a number of cities or entire regions. The former USSR is entering a new stage of its development that will inevitably result in the emergence of new migration patterns. However, the inertia of the past is still in force. Among other things, there has as yet been no success in abolishing the restrictions on settlement in the large cities (*propiska*), despite the overturning of those restrictions by the Constitutional Court.

665. Not only Moscow and St. Petersburg but also most of the capitals, large cities and many regional centres continue to curb strictly the inflow of population. This situation exists because restrictions on in-migration are not merely a juridical measure that can be easily cancelled but are part of the mechanism of housing distribution which cannot be easily given up until housing is available on the free market. The lack of a real housing market greatly complicates the process of resettlement.

666. The Government of Ukraine expressed the view that minor changes in population distribution were desirable and reported that it had adopted policies that would decrease in-migration to metropolitan areas and slow out-migration from rural areas. Changes in population distribution as a result of the radioactive pollution at Chernobyl were also necessary.

NOTES

[1] For a list of the countries classified as least developed by the General Assembly of the United Nations, see Explanatory notes in this volume.

[2] Including Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, the Republic of Moldova, the Russian Federation, Tajikistan, Turkmenistan, Ukraine and Uzbekistan. The Baltic States—Estonia, Latvia and Lithuania— are included in Northern Europe.

[3] Prior to 24 December 1991, the area that is currently the sovereign State of the Russian Federation was part of the former USSR.

ANNEX

TABLE A.11. GOVERNMENTS' PERCEPTIONS CONCERNING PATTERNS OF SPATIAL DISTRIBUTION, BY LEVEL OF DEVELOPMENT AND GEOGRAPHICAL REGION, 1992

Satisfactory (1)	*Minor change desired* (2)	*Major change desired* (3)	*Total number of countries* (4)
	World		
50	65	75	190
	More developed regions		
22	27	7	56
	Less developed regions[a]		
28	38	68	134
	Least developed countries		
5	12	30	47
	Regions		
	Africa		
	Eastern Africa		17
Comoros	Burundi	Eritrea	
Mauritius	Djibouti	Ethiopia	
United Republic of Tanzania	Kenya	Madagascar	
	Malawi	Mozambique	

TABLE A.11 *(continued)*

Satisfactory (1)	*Minor change desired* (2)	*Major change desired* (3)	*Total number of countries* (4)
	Uganda	Rwanda	
		Seychelles	
		Somalia	
		Zambia	
		Zimbabwe	
	Middle Africa		9
Angola	Chad	Cameroon	
Equatorial Guinea	Central African	Congo	
Sao Tome and	Republic	Gabon	
Principe		Zaire	
	Northern Africa		6
—	Morocco	Algeria	
		Egypt	
		Libyan Arab	
		Jamahiriya	
		Sudan	
		Tunisia	
	Southern Africa		5
Namibia	Lesotho	Botswana	
Swaziland		South Africa	
	Western Africa		16
—	Ghana	Benin	
		Burkina Faso	
		Cape Verde	
		Côte d'Ivoire	
		Gambia	
		Guinea	
		Guinea-Bissau	
		Liberia	
		Mali	
		Mauritania	
		Niger	
		Nigeria	
		Senegal	
		Sierra Leone	
		Togo	
	Total		
8	10	35	53
	Asia		
	Eastern Asia		5
Mongolia	China	Japan	
	Democratic People's	Republic of Korea	
	Republic of Korea		
	South-eastern Asia		10
Singapore	Brunei Darussalam	Cambodia	
	Malaysia	Indonesia	
	Myanmar	Lao People's	
	Viet Nam	Democratic Republic	
		Philippines	
		Thailand	
	Southern Asia		9
Pakistan	Afghanistan	Bangladesh	
	Bhutan	India	
	Sri Lanka	Iran (Islamic	
		(Republic of)	
		Maldives	
		Nepal	
	Western Asia		14
Bahrain	Iraq	Lebanon	
Qatar	Israel	Cyprus	

TABLE A.11 *(continued)*

Satisfactory (1)	*Minor change desired* (2)	*Major change desired* (3)	*Total number of countries* (4)
United Arab Emirates	Jordan	Yemen	
	Kuwait		
	Oman		
	Saudi Arabia		
	Syrian Arab Republic		
	Turkey		
	Total		
6	17	15	38
	Europe		
	Eastern Europe		6
Hungary	Czech Republic[b]	Bulgaria	
Romania	Poland		
	Slovakia[b]		
	Northern Europe		10
Denmark	Finland	Latvia	
Estonia	Iceland		
Lithuania	Ireland		
United Kingdom	Norway		
	Sweden		
	Southern Europe		14
Albania	Bosnia-Herzegovina	Greece	
Andorra	Croatia	Portugal	
Holy See	Slovenia	Yugoslavia[c]	
Italy	The former Yugoslav Republic of Macedonia		
Malta			
San Marino			
Spain			
	Western Europe		9
Belgium	Austria	Luxembourg	
Germany	France		
Liechtenstein	Netherlands		
Monaco	Switzerland		
	Total		
17	16	6	39
	Latin America		
	Caribbean		13
Bahamas	Cuba	Antigua and Barbuda	
Barbados	Dominica	Haiti	
Dominican Republic	Saint Kitts and Nevis	Jamaica	
Grenada	Saint Vincent and the Grenadines	Trinidad and Tobago	
Saint Lucia			
	Central America		8
Honduras	Belize	Costa Rica	
		El Salvador	
		Guatemala	
		Mexico	
		Nicaragua	
		Panama	
	South America		12
Bolivia	Brazil	Argentina	
Colombia	Chile	Ecuador	
Paraguay	Guyana	Peru	
		Suriname	
		Uruguay	
		Venezuela	
	Total		
9	8	16	33

TABLE A.11 *(continued)*

Satisfactory (1)	*Minor change desired* (2)	*Major change desired* (3)	*Total number of countries* (4)
	Northern America		*2*
Canada	—	—	
United States of America	—	—	
	Total		
2	0	0	2
	Oceania		
	Australia–New Zealand		*2*
Australia	—	—	
New Zealand	—	—	
	Melanesia		4
Fiji	Papua New Guinea	—	
Vanuatu	Solomon Islands		
	Micronesia		4
Micronesia (Federated States of Nauru)	—	Kiribati Marshall Islands	
	Polynesia		3
Tonga	Tuvalu	Samoa	
	Total		
7	3	3	13
	Union of Soviet Socialist Republics (former)[d]		*12*
Belarus	Armenia	—	
	Azerbaijan		
	Georgia		
	Kazakhstan		
	Kyrgyzstan		
	Republic of Moldova		
	Russian Federation		
	Tajikistan		
	Turkmenistan		
	Ukraine		
	Uzbekistan		
	Total		
1	11	0	12

Source: The Population Policy Data Bank maintained by the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat.

[a]Including the least developed countries.

[b]The former State of Czechoslovakia was dissolved on 31 December 1992 and became the independent States of the Czech Republic and Slovakia on 1 January 1993.

[c]Unless otherwise indicated, data for Yugoslavia shown in this publication for the period beginning 27 April 1992 refer to the Federal Republic of Yugoslavia in terms of its boundaries as they exist from that date. Data for the period prior to 27 April 1992 refer to the former Socialist Federal Republic of Yugoslavia in terms of its boundaries as they existed prior to that date.

[d]Not including Estonia, Latvia and Lithuania, which are included in Northern Europe.

TABLE A.12. GOVERNMENTS' POLICIES RELATING TO INTERNAL MIGRATION OF POPULATION, BY LEVEL OF DEVELOPMENT AND GEOGRAPHICAL REGION, 1992

Accelerate trend (1)	*Decelerate trend (2)*	*Reverse trend (3)*	*Maintain trend (4)*	*No intervention (5)*	*Total number of countries (6)*
		World			
3	87	34	11	55	190
		More developed regions			
0	20	13	4	19	56
		Less developed regions[a]			
3	67	21	7	36	134
		Least developed countries			
1	26	7	2	11	47
		Regions			
		Africa			
		Eastern Africa			17
—	Burundi Comoros Kenya Malawi Mozambique Seychelles Uganda	Madagaskar Somalia United Republic of Tanzania Zambia	Djibouti	Eritrea Ethiopia Mauritius Rwanda Zimbabwe	
		Middle Africa			9
—	Cameroon Central African Republic Congo Gabon Zaire	—	Equatorial Guinea	Angola Chad Sao Tome and Principe	
		Northern Africa			6
—	Algeria Libyan Arab Jamahiriya Morocco Sudan Tunisia	Egypt	—	—	
		Southern Africa			5
—	Botswana	South Africa	Namibia	Lesotho Swaziland	
		Western Africa			16
—	Burkina Faso Cape Verde Côte d'Ivoire Ghana Guinea Guinea-Bissau Liberia Mali Mauritania Niger Nigeria Senegal Sierra Leone Togo	Gambia	—	Benin	
		Total			
0	32	7	3	11	53
		Asia			
		Eastern Asia			5
—	Democratic People's Republic of Korea Japan Mongolia Republic of Korea	—	China	—	

TABLE A.12 *(continued)*

Accelerate trend (1)	*Decelerate trend (2)*	*Reverse trend (3)*	*Maintain trend (4)*	*No intervention (5)*	*Total number of countries (6)*
		South-eastern Asia			10
—	Brunei Darussalam Cambodia Lao People's Democratic Republic Myanmar Thailand Viet Nam	Indonesia Malaysia Philippines	—	Singapore	
		Southern Asia			9
Bhutan	India Iran (Islamic Republic of) Maldives Nepal Pakistan	—	—	Afghanistan Bangladesh Sri Lanka	
		Western Asia			14
Saudi Arabia United Arab Emirates	Iraq Lebanon Oman Syrian Arab Republic Turkey Yemen	Cyprus Israel Quatar	—	Bahrain Jordan Kuwait	
		Total			
3	21	6	1	7	38
		Europe			
		Eastern Europe			6
—	Poland Romania	Bulgaria	Czech Republic[b] Slovakia[b]	Hungary	
		Northern Europe			10
—	Ireland Latvia Lithuania Norway Sweden	Iceland	Finland	Denmark Estonia United Kingdom	
		Southern Europe			14
—	Bosnia-Herzegovina Croatia Greece Slovenia the former Yugoslav Republic of Macedonia Yugoslavia[c]	Albania Portugal	—	Andorra Holy See Italy Malta San Marino Spain	
		Western Europe			9
—	Austria France Netherlands	—	Switzerland	Belgium Germany Liechtenstein Luxembourg Monaco	
		Total			
0	16	4	4	15	39
		Latin America			
		Caribbean			13
—	Cuba Grenada Jamaica Trinidad and Tobago	Antigua and Barbuda Haiti Saint Vincent and the Grenadines	Barbados	Bahamas Dominica Dominican Republic Saint Kitts and Nevis Saint Lucia	
		Central America			8
—	Belize Mexico Nicaragua	Costa Rica Guatemala	—	El Salvador Honduras Panama	

TABLE A.12 *(continued)*

Accelerate trend (1)	*Decelerate trend (2)*	*Reverse trend (3)*	*Maintain trend (4)*	*No intervention (5)*	*Total number of countries (6)*
		South America			12
—	Brazil Chile Ecuador Peru Suriname Uruguay Venezuela	Guyana	Argentina	Bolivia Colombia Paraguay	
		Total			
0	14	6	2	11	33
		Northern America			2
—	—	—	—	Canada United States of America	
		Total			
0	0	0	0	2	2
		Oceania			
		Australia–New Zealand			2
—	—	—	—	Australia New Zealand	
		Melanesia			4
—	—	Fiji	—	Papua New Guinea Solomon Islands Vanuatu	
		Micronesia			4
—	—	Kiribati	—	Marshall Islands Micronesia (Federated States of) Nauru	
		Polynesia			3
—	Tuvalu	—	Tonga	Samoa	
		Total			
0	1	2	1	9	13
		Union of Soviet Socialist Republics (former)[d]			12
—	Belarus Russian Federation Ukraine	Armenia Azerbaijan Georgia Kazakhstan Kyrgyzstan Republic of Moldova Tajikistan Turkmenistan Uzbekistan	—	—	
		Total			
0	3	9	0	0	12

Source: The Population Policy Data Bank maintained by the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat.

[a]Including the least developed countries.

[b]The former State of Czechoslovakia was dissolved on 31 December 1992 and became the independent States of the Czech Republic and Slovakia on 1 January 1993.

[c]Unless otherwise indicated, data for Yugoslavia shown in this publication for the period beginning 27 April 1992 refer to the Federal Republic of Yugoslavia in terms of its boundaries as they exist from that date. Data for the period prior to 27 April 1992 refer to the former Socialist Federal Republic of Yugoslavia in terms of its boundaries as they existed prior to that date.

[d]Not including Estonia, Latvia and Lithuania, which are included in Northern Europe.

REFERENCES

Camposortega-Cruz, Sergio (1991). Demografía de la Ciudad de Mexico: los mismos problemas con menos población. *Demos* (Mexico City), vol. 4, pp. 23-24.

Cole, Rodney V., ed. (1993). *Pacific 2010: Challenging the Future.* Pacific Policy Paper, No. 9. Canberra: National Centre for Development Studies, Research School of Pacific Studies, The Australian National University.

Connell, John, and John P. Lea (1993). *Pacific 2010: Planning the Future: Melanesian Cities in 2010.* Pacific Policy Paper, No. 11. Canberra: National Centre for Development Studies, Research School of Pacific Studies, The Australian National University.

Skeldon Ronald (1992). The relationship between migration and development in the ESCAP region. In *Migration and Urbanization in Asia and the Pacific: Interrelationships with Socio-economic Development and Evolving Policy Issues.* Asian Population Studies Series, No. 11. Bangkok: United Nations, Economic and Social Commission for Asia and the Pacific.

United Nations, Economic and Social Commission for Asia and the Pacific (1992). *Migration and Urbanization in Asia and the Pacific: Interrelationships with Socio-economic Development and Evolving Policy Issues.* Asian Population Studies Series, No. 111. Bangkok.

VI. INTERNATIONAL MIGRATION

A. LEVELS AND TRENDS

667. Although information about international migration during the early 1990s is still incomplete, it suggests that the international relocation of people has not abated. Of particular importance are the movements of refugees and asylum-seekers, that is, of persons leaving their country for fear of persecution. A special chapter is therefore devoted to that topic. This chapter analyses instead the trends in other types of international migration. Attention is focused only on those regions or groups of countries for which new information has become available since 1991. Unfortunately, lack of recent information for most of Africa and Latin America has precluded their inclusion in this analysis.

668. The late 1980s witnessed an increase in the international migration flows directed to the industrialized countries of the West. Among the countries admitting migrants for permanent settlement, the United States of America recorded the highest number of admissions during 1985-1989; and data for 1990-1991 indicate that the number of persons acquiring permanent residence rights in that country continued to rise, reaching 1.8 million in 1991, in part because of the regularization of some 2.5 million undocumented migrants over the period 1989-1991. In Europe, the former Federal Republic of Germany was the major migrant-receiving country during the late 1980s, although over half of the net migration gain recorded by that country was attributable to the admission of ethnic Germans that have the right to German citizenship, a sizeable proportion of whom originated in the former German Democratic Republic and would no longer be considered international migrants after the reunification of Germany.

669. As a result of the changes that have taken place in Eastern Europe and in the former Soviet Union[1], emigration from those regions increased. Until 1991, however, the partial evidence available indicated that emigration levels were moderate and that the migrants involved were generally members of ethnic or other minorities that had traditionally been admitted by a handful of countries, such as France, Germany, Greece, Israel or the United States of America. Thus far, increasing outflows seem to have been averted, in part because of the barriers already instituted by some of the main receiving countries.

670. Important developments have taken place in Asian migration. The flows of workers converging to the oil-producing countries of Western Asia have abated somewhat, partially because of the declining demand for labour associated with reductions in the price of oil and partially because of the Gulf war. However, new labour markets for foreign workers have been opening up in several of the newly industrializing countries of South-eastern Asia and in Japan. Yet, the unmet labour needs in those countries, though acknowledged, have not led to explicit policies favouring the importation of unskilled foreign workers; and consequently undocumented migration has been rising. The evidence available on the changes taking place in Asia is discussed below in detail.

1. *Migration for permanent settlement*

671. During 1965-1989, the main countries of permanent settlement, namely, Australia, Canada and the United States of America, admitted a total of 18.4 million immigrants, most of whom became permanent residents of the United States (65 per cent). Australia and Canada admitted considerably lower proportions of those immigrants—15 and 20 per cent, respectively. There were important differences in the immigration trends experienced by the three countries. Whereas in the United States, immigration has been rising since 1965, both Australia and Canada experienced steady declines in the number of immigrant admissions from 1965-1969 to 1975-1979. The decline was especially marked in Australia, where the total number of admissions fell by about 44 per cent between 1970-1974 and 1975-1979. Although the immigrant intake in both Australia and Canada increased during the latter part of the 1980s, immigrant admissions during 1985-1989 were still below the levels recorded 20 years earlier in both countries.

672. The distribution of permanent immigrants by region of birth differed markedly for these three countries of immigration. As table 59 shows, the proportion of immigrants originating in Africa remained low in all of them, although an increasing trend was noticeable in both Australia and the United States of America. Nevertheless, by 1985-1989, immigrants born in Africa still accounted for only 3 per cent of all immigrants admitted by the United States and for about 6 per cent of those admitted by the other two countries. In contrast, the proportion of immigrants originating in Europe, which had been especially high in both Australia and Canada, declined significantly between 1965 and 1989 in all three countries, although by 1985-1989, immigrants born in Europe still accounted for 31and 24 per cent, respectively, of the immigrants admitted by Australia and Canada. Even in the United States, where European immigrants accounted for slightly over one third of all immigrants in 1965-1969, their proportion in 1985-1989 was still more than 10 per cent. Note that although New Zealand is among the few countries that still admit foreigners for permanent settlement, it has been excluded from table 59 because it ceased to publish its immigration statistics by country of birth around the mid-1980s. Immigrants to New Zealand during the late 1980s are likely to include high proportions of Europeans.

673. The decline in the proportion of immigrants originating in Europe was accompanied by an increase in the proportion of immigrants born in Asia, made possible by the universalist admission policies adopted by the countries of permanent immigration in the late 1960s and 1970s. In all three countries of immigration, Asian immigrants accounted for the highest proportion of immigrant admissions in 1985-1989. Several factors accounted for that increase, but the resettlement of Indo-Chinese refugees made a major contribution to it both directly and indirectly through subsequent family reunification.

674. The proportion of immigrants born in Latin America or Northern America fluctuated in all receiving countries and its level varied considerably from one receiving country to

TABLE 59. TOTAL NUMBER OF ADMISSIONS OF PERMANENT IMMIGRANTS AND PROPORTION OF IMMIGRANTS ORIGINATING IN DIFFERENT MAJOR AREAS: AUSTRALIA, CANADA AND THE UNITED STATES OF AMERICA, 1965-1969 –1985-1989

Major area of origin and receiving country	*1965-1969*	*1970-1974*	*1975-1979*	*1980-1984*	*1985-1989*[a]
		A. *Total number (thousands)*			
World					
Australia	781.0	620.0	344.8	468.1	616.2
Canada	909.9	794.3	650.6	570.3	689.5
United States of America	1 794.7	1 923.4	2 412.6	2 825.0	3 028.4
		B. *Percentage*			
Africa					
Australia	2.8	3.5	4.7	4.7	5.6
Canada	3.2	4.9	5.7	4.5	6.1
United States of America	1.2	1.8	2.1	2.6	3.0
Asia					
Australia	6.6	12.4	31.2	32.7	41.4
Canada	11.5	22.5	32.4	44.1	48.1
United States of America	14.4	29.9	38.1	47.7	44.1
Europe					
Australia	83.3	69.8	42.3	44.6	30.7
Canada	67.5	41.7	33.7	29.9	24.0
United States of America	35.1	24.8	15.3	11.7	10.7
Americas[b]					
Australia	3.1	9.1	7.1	5.0	5.9
Canada	15.5	28.8	26.4	20.2	21.0
United States of America	48.7	42.8	43.7	37.3	41.5
Oceania					
Australia	3.5	4.6	14.3	13.0	16.4
Canada	2.1	1.6	1.7	1.2	0.8
United States of America	0.6	0.8	0.9	0.7	0.7

Sources: Australia, Department of Immigration, Local Government and Ethnic Affairs, *Australian Immigration: Consolidated Statistics 1988*, No. 15 (Canberra, 1989); Australia, Bureau of Immigration Research, *Settler Arrivals 1988-1989*, Statistical Report No. 2 (Canberra, 1990); Canada, Employment and Immigration Canada, *Immigration Statistics*, issues for 1963-1989 (Ottawa), various tables; *World Population Monitoring, 1989: Special Report: The Population Situation in the Least Developed Countries*, Population Studies, No. 113 (United Nations publication, Sales No. E.89.XIII.12); United States of America, Department of Justice, *Statistical Yearbook of the Immigration and Naturalization Service*, issues for 1981-1990 (Washington, D.C.), various tables.

[a]Data for the United States of America excluding persons that legalized their status in 1989 under the Immigration Reform and Control Act of 1986.

[b]Latin America and Northern America.

another. In 1985-1989, they accounted for 42 per cent of the immigrants admitted by the United States of America, 21 per cent of those received by Canada and only 6 per cent of those settling in Australia. Proximity and historical ties were partially responsible for those differences. The United States, in particular, has strong migration linkages with its neighbour to the south, Mexico, which was the main source of immigrants to the United States during 1961-1987 (Zlotnik, 1992b).

675. Immigrants born in Oceania accounted for significant proportions of all immigrants only in Australia and New Zealand, in part because the Trans-Tasman Travel Arrangement allows free movement between those two countries (Bedford, 1992) and in part because of their economic ties and geographical proximity. Indeed, data on emigration from New Zealand indicate that between 1975 and 1986, the country was a net loser of population through migration (see table 60). When such data are classified according to place of birth, they show that from 1961-1965 to 1981-1985, New Zealand registered a net gain of foreign-born immigrants but net losses of persons born in New Zealand (United Nations, 1990).

676. The number of immigrant admissions to the United States during 1985-1989 shown in table 59 excludes those

TABLE 60. IMMIGRATION AND NET MIGRATION RECORDED BY AUSTRALIA AND NEW ZEALAND, 1965-1969 – 1985-1989
(Thousands)

	1965-1969	*1970-1974*	*1975-1979*	*1980-1984*	*1985-1989*[a]
Australia					
Immigration	781.0	612.0	344.8	468.1	616.2
Emigration	94.1	145.3	80.6	64.5	53.1
Net migration	686.9	466.7	264.2	403.6	563.1
New Zealand					
Immigration	155.0	158.6	68.4	57.2	24.0
Emigration	127.8	74.0	82.3	78.9	34.5
Net migration	27.2	84.6	−13.9	−21.7	−10.5

Sources: Australia, Department of Immigration, Local Government and Ethnic Affairs, *Australian Immigration, Consolidated Statistics, 1988*, No. 15 (Canberra, 1989); Australia, Bureau of Immigration Research, *Settler Arrivals, 1988-1989*, Statistical Report No. 2 (Canberra, 1990); New Zealand, Department of Statistics, *Population and Migration Statistics*, part B, *Migration*, various issues (Wellington); and *External Migration Statistics, 1984-85* and *1985-86* (Wellington, 1985, 1986).

[a]Data for New Zealand refer to 1985-1986.

persons acquiring permanent resident status as a result of the legalization provisions of the Immigration Reform and Control Act of 1986 (IRCA). The Act enabled undocumented aliens that had resided in the United States since before 1 January 1982 to regularize their status. It also allowed the eventual regularization of about 1.3 million seasonal agricultural workers. Persons granted permanent resident status through IRCA began appearing in the immigration statistics as of 1989. During 1989-1991, nearly 2.5 million persons were granted permanent resident status under IRCA. When that number is added to the number of immigrants admitted under regular procedures, the United States of America granted permanent resident status to nearly 4.5 million persons during 1989-1991. A comparison of the distribution by major area of birth of persons regularizing their status under IRCA during 1989-1991 with that of immigrants indicates that whereas persons born in Asia accounted for the highest proportion of immigrants (table 59), persons born in Latin or Northern America accounted for the overwhelming majority of those regularizing their status under IRCA (over 90 per cent). Mexico alone accounted for over 70 per cent of the persons regularizing their status during that period.

2. *Europe*

677. During the 1980s, the foreign population resident in six of the main receiving countries in Europe—Belgium, France, the former Federal Republic of Germany, the Netherlands, Sweden and Switzerland—increased by about 750,000, to reach 11,600,000 persons by the end of the decade (table 61). Such increase, however, was not evenly

TABLE 61. FOREIGN POPULATION RESIDENT IN THE MAIN RECEIVING COUNTRIES OF EUROPE, BY COUNTRY OF NATIONALITY
(Thousands)

Major area and country of origin	*Country of*								
	Belgium[a]			*France*[b]			*Germany, Federal Republic of*[c]		
	1981	*1984*	*1991*	*1982*	*1985*	*1990*	*1980*	*1985*	*1989*
Africa	137.3	158.1	182.3	1 594.8	1 539.9	1 652.9	103.4	133.5	163.6
Algeria	10.8	10.8	10.7	805.1	820.9	619.9	..	..	5.9
Morocco	105.1	123.2	142.1	441.3	516.4	584.7	..	48.1	61.8
Tunisia	6.9	6.8	6.3	190.8	202.6	207.5	..	23.2	24.3
Zaire	8.6	9.9	11.8	6.7	..	22.6	..	..	2.7
Other Africa	6.0	7.3	11.3	150.9	..	218.2	..	62.2	68.9
Asia	78.4	72.5	107.5	289.6	146.1	417.0	1 462.4	1 697.4	1 999.0
Turkey	63.6	72.5	85.3	122.3	146.1	201.5	1 462.4	1 401.9	1 612.6
Other Asia	14.8	..	22.2	167.3	..	215.5	..	295.5	386.4
Europe	622.5	606.2	570.3	1 768.2	1 296.3	1 453.4	2 337.2	2 361.9	2 490.5
Non-EU Countries	24.5	22.3	22.6	173.5	..	144.5	833.8	1 005.3	1 165.2
Austria	1.3	..	1.1	2.9	..	3.4	172.6	172.5	171.1
Czechoslovakia	0.6	..	0.4	2.9	..	2.0	..	..	31.7
Finland	0.3	..	0.6	1.1	..	1.6	..	..	9.7
Norway	0.8	..	0.8	1.2	..	2.4	..	..	5.0
Poland	7.6	..	4.9	64.8	..	46.3	..	104.8	220.4
Switzerland	3.2	..	2.4	22.5	..	20.2	29.4	..	29.6
Yugoslavia	5.9	5.3	5.9	62.5	..	51.7	631.8	591.0	610.5
Other non-EU countries	4.7	17.0	6.6	15.6	..	16.8	..	137.0	87.3
EU Countries	598.0	583.9	547.7	1 594.7	1 296.3	1 308.9	1 503.4	1 356.6	1 325.2
Belgium	—	—	—	52.6	..	59.7	16.6	..	18.7
Denmark	1.7	1.9	2.5	2.2	..	3.5	11.5	..	13.4
France	103.5	103.2	93.4	—	—	—	68.6	74.9	77.6
Germany, Federal Republic of	26.8	27.6	27.9	44.0	..	51.5	—	—	—
Greece	21.2	20.7	20.5	7.8	..	6.7	297.5	280.6	293.6
Ireland	1.0	1.3	2.4	1.7	..	3.3	5.7	..	8.9
Italy	279.7	269.3	240.1	340.3	277.1	253.7	617.9	531.3	519.5
Luxembourg	6.0	5.7	4.6	3.3	..	2.8	4.4	..	4.8
Netherlands	66.2	66.3	65.3	14.3	..	16.0	107.8	108.4	101.2
Portugal	10.5	10.4	16.5	767.3	751.3	645.6	112.3	77.0	74.9
Spain	58.3	55.1	51.3	327.2	267.9	216.0	180.0	152.8	127.0
United Kingdom	23.1	22.3	23.1	34.0	..	50.1	81.1	88.1	85.7
Other EU countries	..	..	..	..	..	..	38.2	43.5	..
Northern America	17.8	12.7	19.0	52.8	..	77.6	113.4	127.0	132.2
Canada	1.5	1.5	1.6	4.8	..	7.0	..	..	8.0
United States of America	11.5	11.2	11.5	18.8	..	25.1	..	..	85.7
Other Americas	4.7	..	5.9	29.2	..	45.5	..	..	38.5
Other countries	22.5	48.2	21.8	8.8	479.9	6.8	436.9	59.1	60.5
TOTAL	878.6	897.6	900.9	3 714.2	3 462.2	3 607.6	4 453.3	4 378.9	4 845.9
Annual growth rate	—	0.6	0.1	—	−1.8	1.0	—	−0.3	2.5

Sources: *World Population Monitoring, 1989: Special Report: The Population Situation in the Least Developed Countries*, Population Studies, No. 113 (United Nations publication, Sales No. E.89.XIII.2), pp. 214-215; Organisation for Economic Co-operation and Development, *SOPEMI: Trends in International Migration: Continuous Reporting System on Migration* (Paris, 1992); Belgium, Institut national de statistiques, *Recensement de la population, 1 mars 1991*, tome 1 (Brussels, 1992); France, Institut national de la statistique et des études économiques, *Recensement de la population, 1990: résultats du sondage au vingtième* (Paris, 1991); Germany, Federal Republic of, unpublished tabulations from Statistischer Bundesamt, Wiesbaden; Netherlands, Centraal Bureau voor de Statistiek, *Maandstatistiek van de Bevolking* (The Hague, September 1991).

distributed over the decade. Whereas the foreign population in the countries considered increased by over 1 million during approximately 1985-1990, it had decreased slightly during 1980-1985. Furthermore, statistics based on citizenship fail to reflect some of the immigration flows experienced by certain European countries. For example, the German data exclude ethnic Germans originating either in the former German Democratic Republic (*Übersiedler*) or in the former USSR or in other Central and Eastern European countries (*Aussiedler*), who have a constitutional right to German citizenship. During 1990 alone, of the 635,000 ethnic Germans entering the former Federal Republic of Germany, 238,000 were *Übersiedler*. The status of *Übersiedler* was abolished in July 1990 because of the changed political conditions that eventually led to the reunification of Germany. In December 1992, as part of a tentative agreement to restrict the right to asylum, the Government of Germany announced that it would limit the annual inflow of ethnic Germans to the levels reached in 1991 or 1992 plus a margin of 10 per cent.

678. It is not clear to what extent asylum-seekers, another important group of incoming migrants in several Western and Northern European countries during the 1980s (see chapter I on refugees), are included in the data on foreign population. Presumably, asylum-seekers that are granted refugee status would be included, because as refugees they are entitled to official permission to stay. Asylum-seekers, however, are usually granted permission to stay only until their application for asylum has been adjudicated and may

residence

Netherlands			Sweden			Switzerland			Total		
1980	*1985*	*1990*	*1980*	*1985*	*1990*	*1980*	*1985*	*1990*	*1980*	*1985*	*1990*
83.3	116.4	186.2	6.9	7.4	17.4	..	..	..	1 925.7	1 955.3	2 202.3
..	..	..	0.6	..	..	..	..	..	816.5	831.7	636.6
83.3	116.4	156.9	1.4	1.1	1.3	..	..	..	631.1	805.2	946.8
..	..	2.6	..	..	..	..	..	..	197.7	232.6	240.7
..	..	..	..	..	..	..	..	..	15.3	9.9	37.1
..	..	26.8	4.9	6.3	16.1	..	..	..	161.8	75.8	341.2
156.8	187.8	256.5	36.3	49.9	102.0	38.1	50.9	71.4	2 061.6	2 204.6	2 953.4
138.5	156.4	203.5	18.3	21.5	25.5	38.1	50.9	64.2	1 843.2	1 849.3	2 192.6
18.3	31.4	53.0	18.0	28.4	76.5	..	..	7.2	218.4	355.3	760.8
185.1	169.0	199.1	354.1	301.8	309.1	798.8	818.8	945.6	6 065.9	5 554.0	5 968.1
17.7	11.7	31.0	271.7	233.4	219.6	100.7	119.2	189.3	1 421.9	1 391.9	1 772.3
3.6	..	2.9	3.3	2.9	2.8	31.7	29.2	28.8	215.4	204.6	210.1
..	..	..	..	..	..	13.9	7.1	5.7	17.4	7.1	39.9
..	..	..	181.5	138.6	119.7	..	..	..	182.9	138.6	131.6
..	..	1.4	26.0	26.4	38.2	..	..	..	28.0	26.4	47.8
..	..	4.1	10.3	15.5	15.7	2.0	4.3	5.0	84.7	124.6	296.3
..	..	1.9	2.2	2.1	2.1	—	—	—	57.3	2.1	56.2
14.1	11.7	13.5	39.2	38.4	41.1	43.9	69.5	140.7	797.3	715.9	863.4
..	..	7.2	9.2	9.5	..	9.2	9.1	9.1	38.8	172.6	127.0
167.4	157.3	168.2	82.4	68.4	72.0	698.1	699.6	756.3	4 644.0	4 162.1	4 178.3
23.2	22.8	23.6	..	..	..	4.1	4.8	5.6	96.5	27.6	107.6
..	..	1.6	29.5	25.1	28.6	..	..	..	44.9	27.0	49.6
6.2	7.0	8.9	2.4	2.3	2.9	46.2	47.1	50.0	226.9	234.5	232.8
42.3	41.0	44.3	14.4	12.0	12.9	86.3	81.0	83.4	213.8	161.6	220.0
4.1	3.8	4.9	15.3	9.4	6.5	8.8	8.7	8.3	354.7	323.2	340.5
..	..	3.4	..	..	..	..	..	..	8.4	1.3	18.0
21.1	17.8	16.9	4.8	4.0	4.0	420.7	392.5	378.7	1 684.5	1 492.0	1 412.9
..	..	..	..	..	..	..	..	..	13.7	5.7	12.2
—	—	—	2.3	2.3	2.6	10.0	10.8	11.9	200.6	187.8	197.0
9.4	7.4	8.3	1.6	1.5	1.5	10.7	30.9	85.6	911.8	878.5	832.4
23.2	19.0	17.2	3.4	2.9	2.9	97.2	108.4	116.1	689.3	606.1	530.5
37.9	38.5	39.0	8.7	8.9	10.1	14.1	15.4	16.7	198.9	173.2	224.8
..	..	..	..	..	..	..	..	..	38.2	43.5	..
13.1	20.1	42.2	20.4	23.6	37.7	9.2	9.1	9.7	226.7	192.5	318.3
2.4	..	2.4	..	..	..	..	..	..	8.7	1.5	19.0
10.7	10.5	11.4	5.8	6.4	8.0	9.2	9.1	9.7	56.0	37.2	151.4
..	9.6	28.3	14.6	17.2	29.7	..	..	..	48.5	26.8	147.9
82.0	59.3	8.4	4.1	5.9	17.5	46.7	60.8	73.6	601.0	713.2	188.6
520.2	552.6	692.4	421.7	388.6	483.7	892.8	939.7	1 100.3	10 880.8	10 619.6	11 630.8
—	1.2	4.5	—	−1.6	4.4	—	1.0	3.2	—	—	—

NOTE: For all countries other than those listed below separately, data refer to 31 December of the year indicated.

EU = European Union.

[a]Data for 1981 and 1991 correspond to the census results of 1 March of each year and those for 1984 are estimates for 31 December.

[b]Data for 1982 and 1990 correspond to the census results of 4 March and 5 March, respectively; and for 1985, they are estimates for 31 December.

[c]Data for the former Federal Republic of Germany refer only to the foreign population as of 30 September 1980, 31 December 1985 and 31 December 1989. As of 31 December 1989, there were also 191,190 foreign nationals in the area of the former German Democratic Republic, including 60,067 Vietnamese, 51,743 Poles, 15,483 Mozambicans, 14,885 nationals of the former USSR and 13,424 Hungarians.

therefore not be reflected by the statistics on the resident population, particularly if those statistics are derived from population registers. However, when the data on foreign residents are obtained from censuses, as in France, both asylum-seekers and undocumented aliens may be included because censuses tend not to eliminate them explicitly nor to inquire about a person's legal status. For the former Federal Republic of Germany, the data on the foreign population in 1990 were adjusted on the basis of the 1987 census and are therefore not strictly comparable to pre-1987 figures.

679. Even without making allowance for the inflow of ethnic Germans, the number of foreigners in the former Federal Republic of Germany increased at an annual rate of 2.5 per cent during 1985-1989 to reach 4.8 million by the end of 1990. In contrast, the number of foreigners in France changed slightly during the 1980s, implying that French authorities were fairly successful in stabilizing the size of the foreign population, an implicit or explicit policy goal in most Western and Northern European countries. The different evolution of the foreign population in France and in the former Federal Republic of Germany may be attributed, at least in part, to differences in their laws on nationality. Thus, whereas children of foreigners are themselves foreign in Germany, they can become French citizens in France when they reach age 18. Indeed, the reduction of the Algerian population in France, which fell by almost 200,000 persons between 1982 and 1990, is largely attributable to changes in the reporting of citizenship, since the evidence suggests that children born in France to Algerian parents, though French by birth, were declared to be Algerian in the 1982 census but were declared as French in 1990 (Tribalat, 1992). It is estimated that in 1982, some 240,000 persons declared as Algerians were in fact French citizens (Tribalat, 1992). Changes in the laws on nationality may also affect the foreign population of a country over time. Thus, the stabilization of the foreign population in Belgium during 1985-1990 can be ascribed, at least in part, to a more inclusive definition of citizens introduced in 1985 (OECD, 1992).

680. Towards 1990, the foreign population present in Belgium, France, the former Federal Republic of Germany, the Netherlands, Sweden and Switzerland constituted 7.3 per cent of the total resident population in those countries, a slight increase over the 1980 figure of 7.0 per cent (see figure 45). The sharpest increase in foreigners as a proportion of the total population was recorded in Switzerland, where that proportion reached 16 per cent in 1990. The lengthy procedures involved in acquiring Swiss nationality account in part for the substantial proportion of foreigners among the total population residing in Switzerland.

681. In terms of countries of origin, the Turkish migrant population constituted the largest foreign group resident in Western and Northern European countries. Between 1980 and 1990, it increased by 19 per cent, from 1.8 million to nearly 2.2 million persons. Excluding the former Federal Republic of Germany, where the Turkish population rose by only 10 per cent during the 1980s, in part because a significant number of Turkish migrants were repatriated during 1980-1985 with the assistance of the Government of the Federal Republic, the Turkish population in the other five European countries increased by 52 per cent, rising from 381,000 to 580,000 during 1980-1990.

682. Another group registering a marked increase was that of Moroccans, whose numbers rose by about 50 per cent, passing from 631,000 in 1980 to 947,000 in 1990. As a result, Morocco, which had ranked seventh among the main countries of origin of migrants in Western and Northern Europe in 1980, moved to third place in 1990.

683. In contrast, the total number of migrants originating in the European Union and residing in the six countries considered fell by almost half a million during the 1980s to reach 4.2 million by 1990. That decline was mostly the result of changes in the numbers of migrants originating in the economically more advanced countries of Southern Europe, Italy and Spain, whose expatriate stock in other European countries declined by 16 and 23 per cent, respectively. The 9 per cent decline in the stock of expatriate Portuguese migrants in Europe, the second largest group of foreign migrants in the six receiving countries considered, was close to that registered among European Union migrants as a whole (10 per cent). Note that in table 61, Portugal and Spain have been included in the European Union, although they did not become member States until 1 January 1986 and their workers did not acquire the right of free movement within the Union until 1992. Table 61 also indicates that during the 1980s migration from most of the other member States of the European Union increased in the six receiving countries considered.

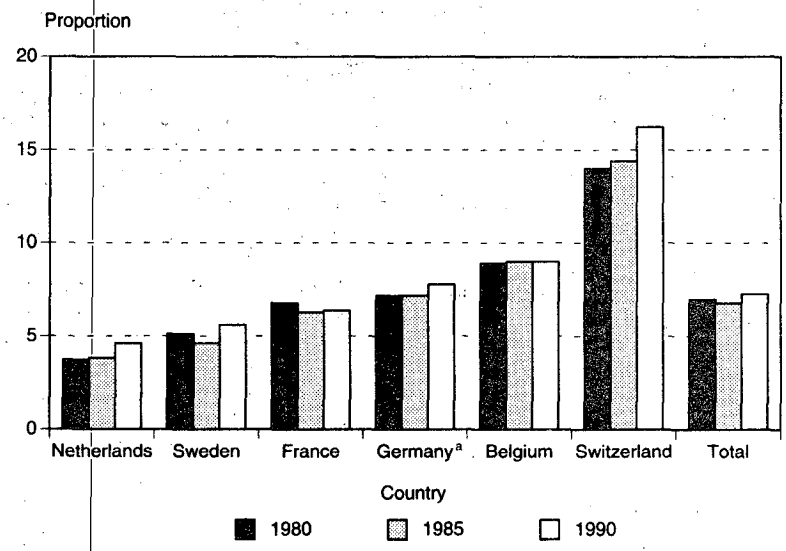
684. In contrast to the number of migrants from the European Union as a whole, the number of migrants from other European countries increased in the six receiving countries considered. In particular, the number of Polish migrants rose from 85,000 in 1980 to almost 300,000 in 1990, and those totals exclude all Polish *Aussiedler*, 741,000 of whom entered the former Federal Republic of Germany between 1985 and 1989.

685. The Southern European member States of the European Union have not only become less important as countries of origin of the migrants present in other Western and Northern European countries, they have in turn become countries of destination for migrants from developing countries. Until recently, countries in Southern Europe lacked the legal provisions necessary to regulate the entry, stay or employment of foreigners, nor did they have adequate border controls to prevent the entry of undocumented migrants. Consequently, they experienced a substantial growth in the undocumented populations present in their territories, a situation that they have tried to remedy through regularization drives.

686. In Spain, the Organic Law of July 1985 established a regularization campaign for undocumented aliens that had been present in the country since before 24 July 1985, possessed a passport, sufficient means of subsistence and proof of employment. Between July 1985 and March 1986, some 44,000 undocumented migrants, 18,000 of whom were Moroccan, applied for legal status in Spain (OECD, 1990). Under a second amnesty programme, which took place between June and December 1991, 133,000 requests for regularization were lodged, of which 104,000 had been granted by early 1992. Nationals from Argentina, the Dominican Republic, Morocco and Peru constituted the major groups applying for regularization. In Portugal, a regularization drive was scheduled to take place in 1992 (OECD, 1992).

687. In Italy, Act No. 39 of 1990 introduced a quota system for the admission of immigrants and imposed visa requirements for certain groups of foreigners. Under the same Act, some 216,000 undocumented migrants regularized their status during a drive that took place from January to June 1990. Another regularization drive had been carried out in Italy during 1987-1988, when some 105,000 undocumented aliens legalized their status under Act No. 943. As in Spain, Moroccans (70,000) constituted the largest group of

Figure 45. Foreigners as a proportion of the total population of selected European countries



Sources: World Population Monitoring, 1989: Special Report: The Population Situation in the Least Developed Countries, Population Studies, No. 113 (United Nations publication, Sales No. E.89.XIII.2), pp. 214-215; Organisation for Economic Co-operation and Development, *SOPEMI: Trends in International Migration: Continuous Reporting System on Migration* (Paris, 1992); Belgium, Institut national de statistiques, *Recensement de la population, 1 mars 1991,* tome 1 (Bruxelles, 1992); France, Institut national de la statistique et des études économiques, *Recensement de la population, 1990: résultats du sondage au vingtième* (Paris, 1991); Netherlands, Centraal Bureau voor de Statistiek, *Maandstatistiek van de Bevolking* (The Hague, 1991); Sweden, Statistika Centralbyran, *Statistik Arsbok* (Stockholm, 1991); Germany, unpublished tabulations from Statistischer Bundesamt, Wiesbaden.

[a]Data for periods prior to 3 October 1990 refer to the former Federal Republic of Germany.

aliens regularized under the two drives carried out in Italy, followed by Tunisians (39,000), Senegalese (24,000), Filipinos (23,000) and nationals of the former Yugoslavia (19,000) (OECD, 1991).

688. One of the major deficiencies of data on the foreign population by citizenship, as discussed above, is that they exclude migrants born abroad but considered citizens when entering the country of intended residence. Unfortunately, very few European countries produce statistics on the stock of the foreign-born population, as proposed by the United Nations (United Nations, 1980), a measure that would obviate the above-mentioned problem. However, data on migrant flows provide useful information about the migration trends that have led to changes in both the national and the foreign populations resident in the receiving countries.

689. Table 62 shows the net migration flows of citizens and foreigners experienced by six receiving countries, namely, Belgium, the former Federal Republic of Germany, the Netherlands, Sweden, Switzerland and the United Kingdom. The former Federal Republic of Germany is the only country among them to have registered a net migration gain among citizens during each quinquennial period since 1970. During the 1980s, the former Federal Republic of Germany recorded a net gain of 1.1 million German citizens, most of whom were admitted as ethnic Germans from Central and Eastern Europe or from the former USSR. The former Federal Republic of Germany was also the only country among the six considered that recorded a net outflow of foreigners during 1975-1984, mostly because the oil crisis of the early 1970s and the stringent economic conditions that followed prompted the return of many Greek and Spanish workers in the late 1970s and because the economic slow-down of the early 1980s led many migrants to repatriate, some with the assistance of the Government of Germany (United Nations, 1990). Belgium also experienced a net emigration of foreigners during 1980-1984; and in the Netherlands, Sweden and the United

TABLE 62. AVERAGE ANNUAL NET MIGRATION OF CITIZENS AND FOREIGNERS IN SIX EUROPEAN COUNTRIES, 1970-1974 – 1985-1989
(Thousands)

Receiving country and citizenship	*1970-1974*	*1975-1979*	*1980-1984*	*1985-1989*
Belgium				
Citizens	−3.7	−4.2	−10.7	−9.3
Foreigners	20.7	9.5	−0.1	7.6
TOTAL	17.1	5.3	−10.8	−1.7
Germany, Federal Republic of (former)				
Citizens	9.2	38.7	32.2	193.1
Foreigners	297.0	−32.4	−29.2	184.6
TOTAL	306.2	6.4	3.0	377.7
Netherlands				
Citizens	4.0	5.7	−5.2	0.7
Foreigners	24.0	32.2	22.6	34.4
TOTAL	28.0	37.8	17.5	35.1
Sweden				
Citizens	−4.2	−1.5	−3.3	−2.9
Foreigners	11.9	18.9	8.1	27.3
TOTAL	7.6	17.5	4.8	24.4
Switzerland				
Citizens	..	..	3.0	7.8
Foreigners	..	..	12.4	18.1
TOTAL	..	..	15.5	25.9
United Kingdom				
Citizens	−92.0	−61.4	−62.2	−23.0
Foreigners	41.8	40.4	34.8	47.2
TOTAL	−50.2	−21.0	−27.4	24.2

Sources: Belgium, Institut National de Statistique, *Annuaire statistique de la Belgique,* various years (Brussels); former Federal Republic of Germany, Statistisches Bundesamt, *Statistisches Jahrbuch,* various years (Wiesbaden); Netherlands, Centraal Bureau voor de Statistiek, *Jaarstatistiek van de Bevolking,* various years (The Hague); Sweden, Statistika Centralbyran, *Statistical Abstract of Sweden,* various years (Stockholm); Switzerland, Bundesamt für Statistik, *Statistischer Jahrbuch der Schweiz,* various years (Berne); United Kingdom, Central Statistical Office, *Annual Abstract of Statistics,* various years (London).

Kingdom, the average annual net migration of foreigners during that period reached the lowest level since 1970.

690. The net migration figures presented in table 62 are generally consistent with the changes in the foreign population discussed above. Thus, the low or even negative growth rates recorded among the foreign population of the various receiving countries during the early 1980s are the result of very low or negative net migration during that period. After 1985, the positive net migration gains recorded by most receiving countries contributed to raise the average annual growth rates of the foreign population present in them. The former Federal Republic of Germany, in particular, recorded relatively high levels of net migration during the late 1980s, reaching an annual average of about 380,000 persons. In most of the other countries considered, annual net migration during 1985-1989 was in the range of from 24,000 to 35,000 persons. Only Belgium recorded negative levels of net migration during the late 1980s.

691. Not only did the levels of net migration recorded by the main receiving countries of Europe change significantly between the early and the late 1980s, but their composition by place of origin changed as well (Zlotnik, 1991). In particular, the contribution made by developing countries increased markedly between 1980-1984 and 1985-1989 in most receiving countries (table 63). Thus, in Belgium and the United Kingdom, net migration from developing countries surpassed the total level of net migration registered during 1985-1989; and in the Netherlands and Sweden, net migration from developing countries accounted for 74 and 78 per cent, respectively, of total net migration levels during that period. Only in the former Federal Republic of Germany did net migration from developing countries during 1985-1989 account for only 18 per cent of total net migration.

692. In terms of region of origin, Northern Africa and Western Asia tended to account for the largest share of net migration from developing countries in the former Federal Republic of Germany, the Netherlands and, to a lesser extent, Belgium. The region labelled "other Asia" (including all of Asia except Western Asia) was a major contributor to net migration to the United Kingdom during the entire period 1970-1989, and by 1985-1989 it had become a major component of net migration in almost every other receiving country considered. The importance of Northern Africa and Western Asia is largely due to the increasing flows of Moroccans and Turks to Western and Northern European countries. That of the rest of Asia is associated with the increasing inflows of migrants from a variety of countries, especially those of Southern Asia, a number of which have been the source of a fair number of asylum-seekers (see chapter I on refugees).

3. *International migration and the former USSR*

693. During most of the twentieth century, the former USSR effectively prevented the voluntary emigration of its nationals, except in special circumstances. Although data on Soviet emigration are scarce, those available indicate that during 1948-1970, only about 60,000 Soviet nationals left the former USSR (see table 64). Data from Soviet sources indicate that during 1961-1965 the country recorded a net gain of 307,800 persons and that during 1966-1970 net migration was again positive at a level of 121,900 migrants. During 1971-1990, however, the net migration recorded by the former USSR was consistently negative (Vichnevski and Zayontchkovskaia, 1991).

TABLE 63. AVERAGE ANNUAL NET MIGRATION FLOWS BETWEEN DEVELOPING COUNTRIES AND SELECTED EUROPEAN COUNTRIES
(Thousands)

Receiving country and region of origin	*1970-1974*	*1975-1979*	*1980-1984*	*1985-1989*
Belgium				
Latin America and the Caribbean	0.3	0.3	0.3	0.3
Northern Africa and Western Asia	2.6	4.2	1.9	1.0
Other Asia	1.2	1.6	1.7	1.8
Sub-Saharan Africa	4.7	2.9	0.5	0.8
TOTAL DEVELOPING	8.9	9.0	4.4	3.9
Germany, Federal Republic of (former)				
Latin America and the Caribbean	2.3	1.3	1.4	2.3
Northern Africa and Western Asia	121.3	17.0	−26.9	25.3
Other Asia	7.8	14.1	13.0	36.5
Sub-Saharan Africa	3.9	1.6	2.1	5.3
TOTAL DEVELOPING	135.2	34.0	−10.5	69.5
Netherlands				
Latin America and the Caribbean	4.2	11.6	5.2	4.5
Northern Africa and Western Asia	13.1	14.6	8.2	10.8
Other Asia	2.0	4.3	4.2	6.5
Sub-Saharan Africa	0.1	0.8	1.0	4.3
TOTAL DEVELOPING	19.4	31.2	18.7	26.0
Sweden				
Latin America and the Caribbean	0.4	2.3	2.1	3.8
Northern Africa and Western Asia	0.5	1.2	1.0	1.3
Other Asia	−2.6	−2.1	1.4	11.8
Sub-Saharan Africa	..	..	0.4	2.1
TOTAL DEVELOPING	−1.7	1.4	4.9	19.0
United Kingdom				
Latin America and the Caribbean	−1.2	1.4	−0.2	0.4
Northern Africa and Western Asia	..	−8.2	−9.7	0.3
Other Asia	17.6	26.7	27.0	24.0
Sub-Saharan Africa	−1.3	2.1	-5.5	13.2
TOTAL DEVELOPING	15.0	21.9	11.6	37.8

Source: Hania Zlotnik, "Asian migration to Latin America", in *The Peopling of Americas, Veracruz, 1992: Proceedings* (Liège International Union for the Scientific Study of Population, 1992), vol. 2, pp. 445-462.

TABLE 64. EMIGRATION FROM THE FORMER UNION OF SOVIET SOCIALIST REPUBLICS

Minority group	*1948-1970*	*1971-1980*	*1981-1986*	*1987-1989*	*1990*
Jews	25 200	248 900	16 900	100 000	201 344
Germans	22 400	64 300	19 500	160 200	147 950
Armenians	12 000	34 100	6 300	24 900	6 821
Greeks	..	..	1 300	8 700	14 300
Evangelicals and Pentecostals	..	..	..	14 200	4 150
Others	..	..	..	200	2 649
TOTAL	59 600	347 300	44 000	308 200	377 214

Source: Sidney Heitman, "Soviet emigration in 1990: a new 'fourth wave'", in *Soviet-Jewish Emigration and Resettlement in the 1990s*, Tanya Basok and Robert J. Brym, eds. (Toronto, York Lanes Press, 1991).

694. As table 64 indicates, emigration from the former USSR has mostly consisted of persons of Jewish, German, Armenian or Greek background that either have external homelands where they are admitted as immigrants or the backing of such countries as France or the United States which are willing to admit them for resettlement. During the past 40 years, the outflow of those selected groups has fluctuated considerably according to the state of East-West relations. Thus, during 1948-1970, relatively small numbers of Jews, Germans and Armenians were allowed to emigrate because Israel, the former Federal Republic of Germany and France interceded on their behalf. During the 1970s, the era of *détente* led to a rise of emigration as the relations of the former USSR with the West improved, so that during 1971-1980, an average of some 35,000 persons left the former USSR annually. However, with the revival of the cold war in 1980, emigration levels dropped again to some 7,300 per annum during 1981-1986. The advent of perestroika and glasnost led to the most recent and strongest increase in Soviet emigration, which amounted to an annual average of 100,000 persons during 1987-1989. In 1989, the preliminary approval by the Supreme Soviet of a law making emigration a right for all Soviet nationals and simplifying the procedures for emigration led to the almost immediate relaxation of the restrictions to which emigrants from minority groups were subject and to a very significant rise in emigration levels (box 26). In 1990 alone, over 377,000 emigrants from the former USSR were recorded by receiving countries (table 64) and Soviet sources put the equivalent figure at 452,000 (Vichnevski and Zayontchkovskaia, 1991).

695. Since then, the political and economic disintegration of the former USSR has raised concerns about the nature and magnitude of future emigration flows from the Russian Federation and the other successor States of the former Soviet Union. Apart from the ethnic minorities that have thus far constituted most of the emigrants and whose numbers, according to the 1989 census, amounted to 4,600,000 Armenians, 2,000,000 Germans, 1,400,000 Jews and 360,000 Greeks, mention has also been made of the 1,100,000 million persons of Polish descent, 440,000 Koreans and another 900,000 members of other ethnic minorities (Vichnevski and Zayontchkovskaia, 1991) as potential emigrants. However, the traditional countries of destination have already begun to raise barriers to the inflow of such minorities. Thus, in 1989 the United States abolished the automatic eligibility of Soviet emigrants for refugee status (Heitman, 1991), and the Federal Republic of Germany imposed ceilings on the annual admission of ethnic Germans.

696. Another potential source of sizeable migration flows is constituted by the 25.3 million Russians that lived in the non-Russian republics of the former Soviet Union at the time of the 1989 census (Brubaker, 1992; and Vichnevski and Zayontchkovskaia, 1991). Their movement, which prior to the dissolution of the former Soviet Union was considered internal migration, has become internationalized. The emigration of Russians from non-Russian former Soviet republics will depend, among other things, upon their degree of integration within those States and the strength of the Russian immigrant presence in them. Russians account for a sizeable share of the population in some of the former Soviet republics, ranging from fewer than 5 per cent in Armenia to 22 per cent in Ukraine, 30 in Estonia, 34 in Latvia and 38 in Kazakhstan. Although there was net Russian emigration from the Central Asian republics, the Transcaucasian republics (Azerbaijan and Georgia) and

BOX 26. IMMIGRATION TO ISRAEL

Since the creation of the State of Israel in 1948, immigration has been a major factor contributing to the growth of the Israeli population. Thus, in mid-1992, 80 per cent of the 5.1 million people living in the country were first- or second-generation immigrants.[a] Immigrants to Israel are almost exclusively Jews and their immediate relatives and, as the table indicates, immigration to Israel has fluctuated considerably since 1948. The relatively high levels registered immediately after independence (some 700,000 immigrants were admitted during 1948-1951) tended to decline thereafter, reaching a low of about 120,000 during 1965-1969. Although during the early 1970s the number of immigrants rose again to over 200,000, after 1975 a steady decline set in. Only recently has that decline been reversed by the admission of considerable numbers of Soviet Jews, about 200,000 of whom arrived in Israel in 1990 alone.

IMMIGRATION TO ISRAEL COMPARED WITH SOVIET JEWISH EMIGRATION, 1948-1991

Period	Total immigration Israel	Soviet Jews emigrating to		Soviet Jews as a percentage of immigration to Israel
		Israel	United States of America	
1948-1949	341 782	..	..	..
1950-1954	400 518	..	..	..
1955-1959	217 770	..	..	..
1960-1964	253 485	..	..	..
1965-1969	120 355	7 600	400	6
1970-1974	221 433	95 800	5 700	43
1975-1979	124 827	54 000	58 700	43
1980-1984	83 637	10 900	26 500	13
1985-1989	70 196	17 900	52 300	26
1990	199 516	185 200	31 300	93
1991	..	147 800	34 700	..

Sources: Israel, Central Bureau of Statistics, *Immigration to Israel, 1990*, Special Series, No. 900 (Jerusalem, 1991), table 1; Eitan F. Sabatello, "Migrants from the USSR to Israel in the 1990s: socio-demographic background and first-year occupational trends", paper presented at the Conference on Mass Migration, Vienna, Austria, 5-7 March 1992, organized by the International Institute for Applied Systems Analysis.

NOTE: Annual data were not available with regard to the emigration of Soviet Jews to Israel during the period 1948-1984, but a total of 5,600 Soviet Jews are known to have emigrated to Israel during that time; that is, 0.5 per cent of all immigrants to Israel during 1948-1984 were Soviet Jews.

The recent increase of immigration to Israel has in large part been the result of two developments: the easing of emigration restrictions by the former USSR and the 1989 decision by authorities of the United States of America to stop granting automatic refugee status to Soviet nationals.[b] As the foregoing table shows, during the late 1960s and early 1970s, when the emigration of Soviet Jews first became significant, most of them chose to resettle in Israel. During the late 1970s, however, the United States attracted more Soviet Jews than Israel; and during the 1980s the number of Soviet Jews migrating to the United States was almost three times as large as the total of those going to Israel. During 1990-1991, however, Israel admitted five times as many Soviet Jews as the United States of America.

The large inflow of Soviet Jews to Israel in such a short time has had important social and economic impli-

cations for the country. Although the Government has managed to provide some economic assistance to all newly arrived immigrants, it has been hard-pressed to satisfy their needs in terms of education, housing and employment. In addition, although a majority of the Soviet immigrants are well educated or skilled, their skills do not necessarily match those in demand in Israel. The difficulties faced by Soviet immigrants may contribute to further slowing Jewish emigration from the former USSR. It is estimated that slightly over 1 million Jews remain in the Russian Federation and the other successor States of the former USSR, all of whom are potential emigrants.[c] If all those persons were to immigrate to Israel, the population of the country would increase by about 20 per cent and major challenges with regard to integration of the newcomers would have to be met.

[a]Eitan F. Sabatello, "Migrants from the USSR to Israel in the 1990s: socio-demographic background and first-year occupational trends", paper presented at the Conference on Mass Migration, Vienna, Austria, 5-7 March 1992, organized by the International Institute for Applied Systems Analysis.

[b]Sidney Heitman, "Soviet emigration in 1990: a new 'fourth wave'", in *Soviet-Jewish Emigration and Resettlement in the 1990s*, Tanya Basok and Robert J. Brym, eds. (Toronto, York Lanes Press, 1991).

[c]Sabatello, op.cit.

Moldavia in the 1980s, some countries, such as the Byelorussian SSR (now Belarus), Lithuania and the Ukraine, experienced net in-migration of Russians during that decade (Vichnevski and Zayontchkovskaia, 1991).

697. In Estonia and Latvia, the citizenship of Russians has been an issue of considerable controversy, in part because Russian immigration and the natural increase of Russian immigrants accounted for most of the population growth in those countries during the 1980s. The resurgence of nationalistic sentiments in Estonia and Latvia is thus associated with a substantial decline of the share of native groups in the population of each State: from 90 per cent in 1939 to 61 in 1989 in Estonia; and from 77 per cent in 1939 to 52 in 1989 in Latvia (Misiunas and Taagepera, 1983; Anderson and Silver, 1989; Brubaker, 1992). In contrast, the emigration of Russians from Belarus and Ukraine is expected to be small because both States have passed laws recognizing as citizens all persons resident in them in the autumn of 1991, irrespective of ethnic origin. Belarus allows dual citizenship unconditionally and Ukraine allows dual citizenship on the basis of bilateral agreements (Brubaker, 1992; Shamshur, 1992). Furthermore, most Central Asian republics have sought to prevent the departure of the Russian population because Russians tend to occupy positions requiring specialized technical skills and such an outflow would have potentially negative economic consequences (Brubaker, 1992).

4. *Asia*

698. According to statistics on the number of migrant workers registering in their countries of origin before departure, the total outflow of workers from the major labour-sending countries of Asia rose rapidly during the late 1970s and early 1980s and then stabilized at an annual level of about 1.1 million during much of the 1980s and early 1990s (table 65). In all, the departures of some 14.5 million Asian workers were registered in their countries between 1975 and 1991. The highest number of worker departures was registered in the Philippines (5.2 million), followed by India (2.1 million), Pakistan (1.8 million) and the Republic of Korea (1.7 million). It must be stressed, however, that these figures represent gross outflows, where multiple counting of the same person is likely, given the rotation of labour enforced by the main receiving countries.

TABLE 65. AVERAGE ANNUAL AND TOTAL OUTFLOW OF ASIAN MIGRANT WORKERS BY REGION AND COUNTRY OF ORIGIN, 1975-1979 – 1990-1991
(Thousands)

Region and country of origin	*1975-1979*	*1980-1984*	*1985-1989*	*1990-1991*	*Total*
Eastern Asia					
China	—	—	69.0	73.9	286
Republic of Korea	72.3	171.1	89.7	55.8	1 721
Southern Asia					
Bangladesh	17.3	55.3	79.8	125.5	1 013
India	67.0	236.5	139.7	—	2 149
Nepal	—	—	0.5	0.5	2
Pakistan	92.3	134.0	80.3	128.3	1 789
Sri Lanka	14.3	28.5	18.4	53.8	399
South-eastern Asia					
Indonesia	5.8	24.4	63.5	105.5	674
Myanmar	—	—	8.1	9.8	28
Philippines[a]	76.0	330.9	426.0	530.6	5 225
Thailand	6.3	60.0	97.0	63.5	944
Viet Nam	—	13.3	38.9	2.1	265
Eastern Asia	72.3	171.1	158.7	129.7	2 007
Southern Asia	190.8	454.3	318.7	308.1	5 352
South-eastern Asia	88.1	428.7	633.6	711.4	7 136
TOTAL	351.2	1 054.0	1 111.0	1 149.1	14 494

Sources: International Labour Organisation, *International Labour Migration from Asian Labour-sending Countries: Statistical Report, 1989* and *1991*, Asian Regional Programme on International Labour Migration, UNDP-ILO Project RAS/88/029 (Bangkok, ILO Regional Office for Asia and the Pacific, 1989 and 1991); and Manuel I. Abella, "Manpower movements in the Asian region", paper presented at the Second Japan-ASEAN Forum on International Labour Migration in East-Asia, Tokyo, 26-27 September 1991, organized by the United Nations University and the International Labour Organization.

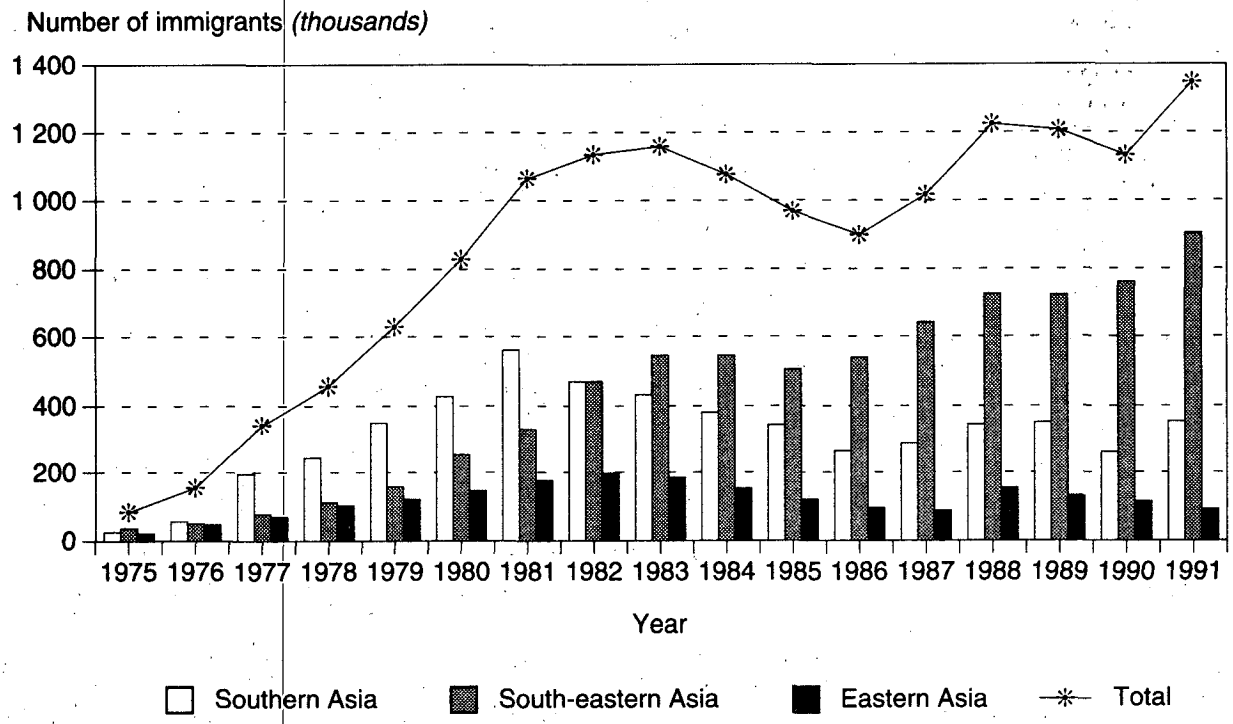
[a]After 1985, the numbers refer only to deployed workers.

699. Although the 1980s did not witness a major increase in the overall average annual number of departures of migrant workers, significant changes occurred in terms of their origin and destination. As is illustrated by figure 46, Southern Asia lost ground as a source of migrant workers, in both absolute and relative terms. Thus, during 1977-1981, Southern Asia was the source of more than 50 per cent of the Asian migrants departing to work abroad, whereas by the late 1980s, that percentage had declined to about 27 per cent. In contrast, labour migration from South-eastern Asian countries, in particular from Indonesia, the Philippines and Thailand, increased considerably during the 1980s, so that by 1990-1991 the region was the source of 62 per cent of all migrant workers registering to work abroad. The Philippines, in particular, accounted for 46 per cent of the total and had thus become the main labour-exporting country in the region (table 65). Thai labour migration, which had been increasing steadily during the 1980s, declined during 1990-1991 as a result of problems between the Governments of Thailand and Saudi Arabia, which led Saudi authorities to stop issuing visas to Thai workers in February 1990 (Far Eastern Economic Review, 1990).

700. During the 1980s, the oil-producing countries of Western Asia maintained their position as the leading destination of migrant workers, although the annual outflow of Asian workers declaring that their destination was a country in Western Asia declined steadily since 1983, partially as a result of the economic slow-down experienced by the receiving countries because of declining oil prices (figure 47). The reduction of the proportion of Asian migrant work-

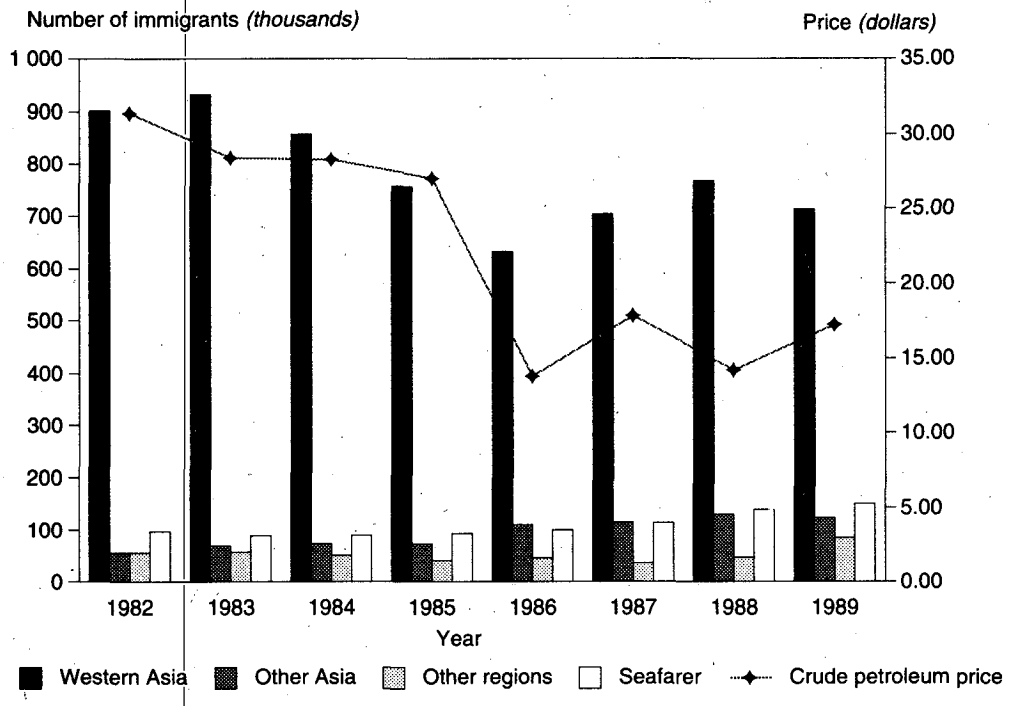
Figure 46. Outflow of Asian labour migrants by region of origin, 1975-1991

(Thousands)



Source: Table 65.

Figure 47. Outflow of Asian migrant workers[a] by destination and price of crude petroleum, 1982-1989



Sources: Table 65; *UNCTAD Commodity Yearbook, 1991* (United Nations publication, Sales No. B.91.II.D.9)

[a]Excluding workers from China, Myanmar, Nepal and Viet Nam.

[b]No data available for India.

ers going to Western Asia was accompanied by an increase in the percentage of those declaring destinations in other Asian countries, which rose from 5 per cent in 1980-1984 to 11 per cent in 1985-1989. The new countries or areas of destination of Asian migrant workers are located in Eastern and South-eastern Asia and include Brunei Darussalam, Hong Kong, Japan, Malaysia, the Republic of Korea, Singapore and Taiwan Province of China. In addition, the proportion of Asian workers employed as seamen on foreign vessels increased from 9 per cent in 1980-1984 to 12 per cent in 1985-1989. Roughly two thirds of those migrants originated in the Philippines and one third in the Republic of Korea.

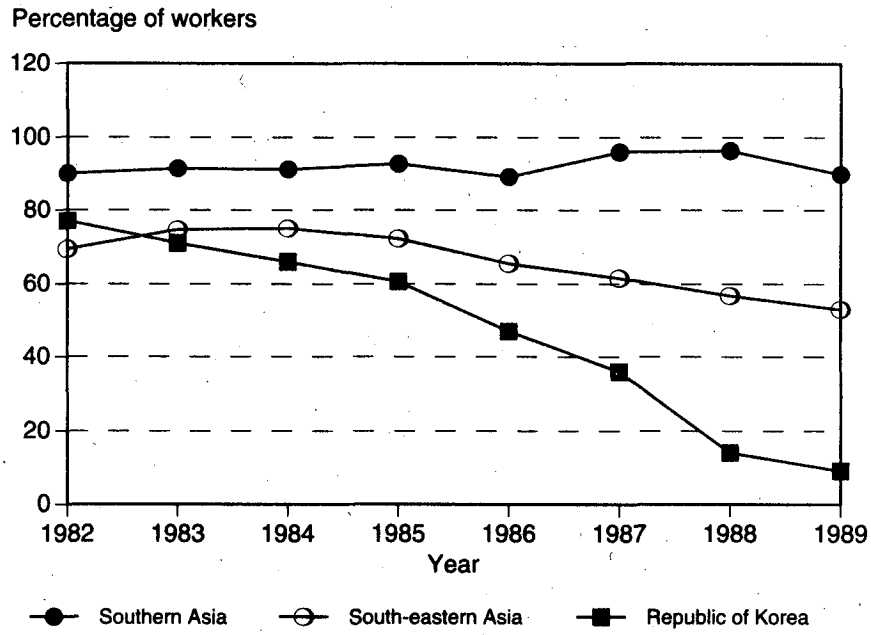
701. Figure 48 indicates that the labour-exporting countries of South-eastern Asia have been more successful than those in Southern Asia in securing labour markets for their migrant workers outside Western Asia. Consequently, labour migration from Southern Asia declined during the 1980s, mostly because it remained heavily dependent upon the shrinking labour markets of Western Asia. However, despite the relative weakness of those labour markets, labour migration from South-eastern Asia gained ground in the oil-producing countries of Western Asia compared with that from Southern Asia (figure 49). Since many of the large construction projects undertaken by the oil-producing Western Asian countries were completed in the early 1980s, work opportunities for unskilled and semi-skilled construction workers, many of whom had been recruited in India and Pakistan, became scarce. At the same time, the demand for female labour in the service sector increased and tended to be satisfied by South-eastern Asian countries. In India and Pakistan, cultural and legal factors inhibited the large-scale recruitment of women to work abroad. Only in Sri Lanka did the temporary migration of women to work in Western Asian countries, mostly as domestic servants, become significant. Indeed, during the 1980s there was a considerable increase in the number of women departing to work abroad, particularly from Indonesia, the Philippines, Sri Lanka and Thailand.

702. In the 1980s, as job opportunities in Western Asia declined (see box 27), the undocumented migration of workers to the more affluent countries of Eastern and South-eastern Asia increased. Malaysia, which has traditionally been a labour-exporting country, was reportedly hosting an estimated 340,000 Indonesians and 100,000 Filipinos in the late 1980s, most of whom lacked official work or residence permits (Lim, 1991). The presence of those migrants, however, may date from earlier periods. In 1978, Malaysia reported the presence of 153,000 Filipino refugees (United Nations, 1985); and according to Malaysian official statistics, about 88,000 foreign workers were registered in the country in the late 1980s (Abella, 1991). The case of Japan, discussed in detail below, is also illustrative of the increasing impact of undocumented migration in the region.

703. The end of the construction boom in the oil-producing countries of Western Asia had a major impact on the employment of migrant workers from the Republic of Korea (figure 50). Between 1982 and 1990, the number of nationals leaving the Republic of Korea to work in Western Asia fell from 152,000 to 8,000, while the total outflow of these migrant workers decreased from almost 197,000 to 56,000. The decline in job opportunities in Western Asia coincided with a rapid expansion of the economy at home that lessened the willingness of workers from the Republic of Korea to seek employment abroad and that may even be fuelling the demand for foreign labour in the Republic itself. Thus, as table 66 indicates, in 1986 the number of employment-

Figure 48. Percentage of Asian migrant workers[a] going to Western Asia, by region of origin of the migrant, 1982-1989

Percentage of workers

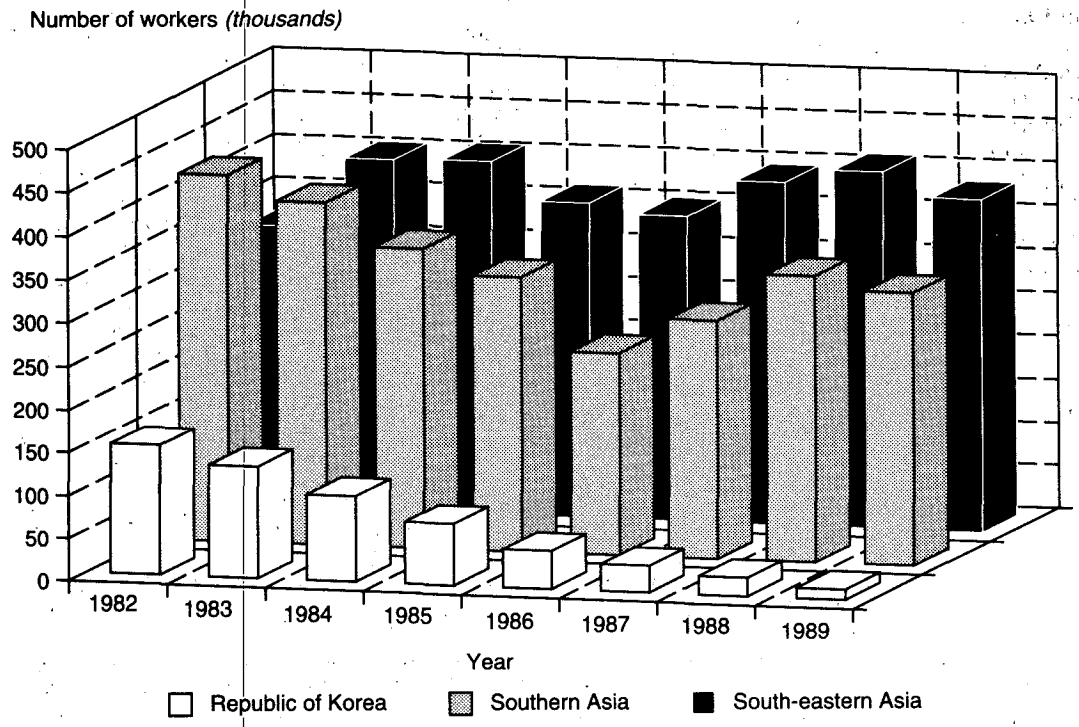


Source: Table 65.

[a]Excluding workers from China, Myanmar, Nepal and Viet Nam.

Figure 49. Number of Asian migrant workers[a] going to Western Asia, by region of origin of the migrant, 1982-1989

Number of workers *(thousands)*



Source: Table 65.

[a]Excluding workers from China, Myanmar, Nepal and Viet Nam.

Box 27. The Persian Gulf War and international labour migration

An estimated 2.6 million migrant workers and members of their families were present in Iraq and Kuwait when war broke out between the two countries in August 1990.[a] Within the first two months of the conflict, an estimated 900,000 Arabs and Asians left Kuwait and another 275,000 left Iraq in one of the largest and most rapid repatriations in recent history (see table).

Outflow of migrant workers and members of their families from Iraq and Kuwait during August and September 1990 (*Thousands*)

Country	*Iraq*	*Kuwait*	*Total*
Bangladesh	10	50	60
Egypt	160	160	320
India	3	122	125
Jordan/Palestine	10	210	220
Pakistan	3	50	53
Philippines	5	36	41
Sri Lanka	1	50	51
Sudan	20	5	25
Thailand	2	6	8
Other Arabs	26	139	165
Other Asians	10	58	68
Others	25	14	39
TOTAL	275	900	1 175

Source: International Labour Office, Ministerial meeting on migrant workers affected by the Gulf crisis: informal summary record, Geneva, 19 November 1990.

Under the auspices of the Office of the United Nations Disaster Relief Co-ordinator, over 700,000 people leaving those countries were assisted by the international community.[b] The International Organization for Migration played a leading role in repatriating migrant workers and members of their families. The International Committee of the Red Cross, the League of Red Cross and Red Crescent Societies and many other non-governmental organizations provided food, shelter and health care to the displaced migrants.

In September 1990, the Government of Saudi Arabia decreed that Yemeni workers and their family members had to obtain legal residence if they wished to stay in the country and that Yemeni businessmen had to cooperate with Saudi entrepreneurs. The decree, which reversed a long-standing policy of allowing Yemenis to enter and stay in Saudi Arabia freely, triggered the repatriation of several thousand Yemenis. It has been reported that the Yemeni and other migrant workers that left Saudi Arabia have largely been replaced by Egyptians.

[a]International Labour Office, Ministerial meeting on migrant workers affected by the Gulf crisis: informal summary record, Geneva, 19 November 1990.

[b]United Nations, Office of the United Nations Disaster Relief Co-ordinator, *Iraq-Kuwait Crisis: The Plight of Returnees* (Geneva, 1990).

TABLE 66. IMMIGRATION TO AND EMIGRATION FROM THE REPUBLIC OF KOREA, 1984-1990
(Thousands)

Year	*Number of employment-related visas issued*	*Outflow of migrant workers*
1984	90.3	152.7
1985	90.3	120.2
1986	116.2	95.3
1987	138.1	86.3
1988	157.8	83.0
1989	162.2	63.6
1990	..	55.8

Source: Young-bum Park, "Foreign labour in Korea: issues and policy options", paper presented at the Second Japan-ASEAN Forum on International Labour Migration in East-Asia, Tokyo, 26-27 September 1991, organized by the United Nations University and the International Labour Organization.

related visas issued by the Republic of Korea surpassed for the first time the number of its migrant workers departing to work abroad. In addition, the late 1980s witnessed an increase in the number of apprehensions of undocumented migrants. The increase of undocumented migration is related to the labour shortage (estimated at 192,000 workers in 1990) and the restrictive immigration policy of the Republic of Korea that makes no allowance for the entry of unskilled labour (Park, 1991).

Japan

704. With fewer than 1 per cent of its population being foreign-born, Japan still represents a highly homogeneous society. But the country has undergone unprecedented changes in population mobility across its borders in recent years. Thus, the late 1980s witnessed a remarkable increase in the number of Japanese leaving the country, mostly for short trips abroad. Between 1975 and 1985, that number grew by nearly 96 per cent, from 2.5 million to 4.9 million, and it took only another half-decade to double that number. In 1992 alone, the outflow of Japanese reached 11.8 million. Such changes have been attributed to the strength of the yen, resulting from the Plaza Agreement reached between the five highly industrialized countries in 1985. Although about 84 per cent of the Japanese leaving the country were tourists, the number of those travelling for business purposes or for longer stays abroad has also increased.

705. A parallel development has been the increase in the inflow of foreigners to Japan, whose numbers increased from an annual average of 1.9 million during 1981-1985 to over 2.6 million per annum during 1986-1990 and reached a record high of 3.9 million in 1992. Again, in this case, the vast majority of those foreigners are tourists on short-term visits to Japan. In order to assess trends in the long-term migration of foreigners to Japan, one must consider stock statistics. In accordance with the Alien Registration Law, foreign nationals staying in Japan for more than 90 days must register their address and occupational status at the local municipality. In 1970, the total number of registered foreigners stood at 708,000; and, given that the children of foreigners have no right to Japanese citizenship even if born in the country, the number of foreigners continued to increase slowly, in large measure because of natural increase. An average annual increase of some 10,000 persons was registered during the 1970s and early 1980s. Since the mid-1980s, however, the foreign population registered in Japan has risen sharply, passing from 851,000 in 1985 to 1,219,000 in 1991.

706. As is shown in table 67, the majority of the foreigners registered in Japan consist of Koreans, most of whom are persons brought into Japan as forced labour before and during the Second World War and their descendants. Yet, the proportion of these persons among the total foreign population has been declining, passing from 80 per cent in 1985 to 57 per cent by 1991 because of the growing inflow of foreigners from other countries. In particular, the number of nationals from China and the Philippines has been increasing steadily.

707. Table 67 also shows that there was a notable increase in the number of foreigners registered in Japan and originating in Latin American countries, especially in Brazil and Peru. Their increase is the result of an amendment of the Immigration Control and Refugee Recognition Act that came into effect in 1990. It established that the second- and third-generation descendants of Japanese emigrants are entitled to a long-term residence permit in Japan and are not subject to any restrictions regarding employment. Japan thus

TABLE 67. FOREIGNERS LEGALLY RESIDENT IN JAPAN, BY COUNTRY OF CITIZENSHIP

Country of citizenship	*1980*		*1985*		*1991*	
	Number	*Percentage*	*Number*	*Percentage*	*Number*	*Percentage*
Democratic People's Republic of Korea / Republic of Korea	664 536[a]	84.9	683 313[a]	80.3	693 050[a]	56.9
China	52 896	6.8	74 924	8.8	171 071	14.0
Brazil	1 492	0.2	1 955	0.2	119 333	9.8
Philippines	5 547	0.7	12 261	1.4	61 837	5.1
United States of America	22 401	2.9	29 044	3.4	42 498	3.5
Peru	348	0.0	480	0.1	26 281	2.2
United Kingdom	4 956	0.6	6 792	0.8	11 794	1.0
Thailand	1 276	0.2	2 642	0.3	8 912	0.7
Viet Nam	2 742	0.4	4 126	0.5	6 410	0.5
Canada	1 698	0.2	2 401	0.3	5 903	0.5
Malaysia	744	0.1	1 761	0.2	5 639	0.5
Australia	1 117	0.1	1 842	0.2	5 392	0.4
Others	23 157	3.0	29 071	3.4	60 771	5.0
TOTAL	782 910	100.0	850 612	100.0	1 218 891	100.0

Source: Japan, Ministry of Justice, *Annual Report of Statistics on Legal Migrants, 1992* (Tokyo, 1992); and Ministry of Health and Welfare, *Latest Demographic Statistics, 1990-1991* (Tokyo, Institute of Population Problems, 1991).

[a]Including persons brought into Japan as forced labour both before and during the Second World War and their descendants.

joined a select group of European countries, such as Germany, Greece and Italy, that allow the immigration of foreign-born descendants of former emigrants (Zlotnik, 1994). The effect of the Act was immediate: the number of Brazilians in Japan increased from 14,528 in 1989 to 56,429 in 1990 and to 119,333 in 1991. The number of Peruvians also rose sharply, though the total number was smaller. Brazil and Peru are among the Latin American countries that received significant Japanese immigration early in the twentieth century (Zlotnik, 1992a).

708. Another major amendment of the Immigration Act was the expansion of the categories of skilled workers that would be authorized to enter and reside in Japan. The Act, however, still limits legal admission to foreign workers with specialized skills or knowledge, or to those working in jobs reserved for foreigners. However, the sustained economic growth of Japan, combined with its ageing population, low fertility and the growing reluctance of indigenous workers to take up arduous and menial jobs, has led to serious labour shortages that are increasingly being palliated by having recourse to undocumented migrant workers from developing countries (Shah, 1993).

709. Whether Japan should admit unskilled foreign workers legally remains a contentious issue. Meanwhile, indirect evidence suggests that the number of undocumented migrant workers is growing. The number of foreigners charged with violating the Immigration Control Act has risen considerably, from 5,600 in 1985 to 31,900 in 1991, and apprehensions have been recorded in 45 out of the 47 prefectures. The majority of the foreigners apprehended originate in other Asian countries, namely, Malaysia, the Islamic Republic of Iran, the Philippines, the Republic of Korea and Thailand. The Government estimates that as of mid-1991 at least 160,000 foreigners were staying illegally in Japan (Japan, Ministry of Labour, 1992).

TABLE 68. GOVERNMENTS' VIEW ON THE LEVEL OF IMMIGRATION, 1976-1993
(Percentage of countries)

Year	View			Total	Number of countries
	Too low	Satisfactory	Too high		
1976.....	7.1	86.5	6.4	100.0	156
1983.....	6.6	74.4	19.0	100.0	168
1986.....	3.6	76.4	20.0	100.0	170
1989.....	3.5	75.9	20.6	100.0	170
1993.....	2.6	74.7	22.6	100.0	190

Source: The Population Policy Data Bank maintained by the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat.

TABLE 69. GOVERNMENTS' POLICY CONCERNING THE LEVEL OF IMMIGRATION, 1976-1993
(Percentage of countries)

Year	Policy			Total	Number of countries
	To raise	To maintain	To lower		
1976.....	7.1	86.5	6.4	100.0	156
1983.....	5.4	77.9	16.7	100.0	168
1986.....	3.5	77.1	19.4	100.0	170
1989.....	4.7	63.7	31.8	100.0	170
1993.....	4.2	60.5	35.3	100.0	190

Source: The Population Policy Data Bank maintained by the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat.

B. INTERNATIONAL MIGRATION POLICIES

1. *Global analysis*

710. Although few changes in international migration policies have been reported since the previous assessment contained in *World Population Monitoring, 1991* (United Nations, 1992) two political events have had an enormous impact on recent global migratory movements. It has been shown that unexpected political developments can quickly trigger enormous surges of immigrants, even in the presence of well-established migration policies. The Gulf crisis is one such case. The sudden departure of some 2 million migrants from Saudi Arabia, Iraq, Kuwait and other States in the Persian Gulf area precipitated the return of hundreds of thousands of people to their countries of origin and left large numbers of migrants stranded in transit countries. The other development is the rapid political changes in Eastern Europe and the former USSR, and the subsequent dramatic economic, political and social consequences for both sending and receiving countries, as people suddenly attempted to leave their country of origin.

711. An examination of tables 68-71 confirms the view that relatively few modifications in perceptions and policies concerning international immigration and emigration have been made since 1989. Most observed changes in immigration policies took place during the period 1986-1989, when the percentage of countries with policies to lower immigration jumped from 19 to 32 per cent. Between 1989 and 1993, the percentage only increased from 32 to 35 per cent. With respect to emigration policies, the situation actually reversed in recent years when the percentage of countries seeking to lower emigration fell from 25 to 20 per cent between 1989 and 1993. Based on the foregoing analysis, it appears that despite the growing preoccupation with immigration and its consequences, slightly more than one third of Governments in the world wish to lower the level of immigration.

TABLE 70. GOVERNMENTS' VIEW ON THE LEVEL OF EMIGRATION, 1976-1993
(Percentage of countries)

Year	View			Total	Number of countries
	Too low	Satisfactory	Too high		
1976.....	3.9	83.3	12.8	100.0	156
1983.....	6.0	74.4	19.6	100.0	168
1986.....	5.3	75.3	19.4	100.0	170
1989.....	5.3	74.1	20.6	100.0	170
1993.....	3.2	75.3	21.6	100.0	190

Source: The Population Policy Data Bank maintained by the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat.

TABLE 71. GOVERNMENTS' POLICY CONCERNING THE LEVEL OF EMIGRATION, 1976-1993
(Percentage of countries)

Year	Policy			Total	Number of countries
	To raise	To maintain	To lower		
1976.....	3.8	83.4	12.8	100.0	156
1983.....	4.8	75.0	20.2	100.0	168
1986.....	4.7	73.5	21.8	100.0	170
1989.....	3.5	71.8	24.7	100.0	170
1993.....	3.2	77.4	19.5	100.0	190

Source: The Population Policy Data Bank maintained by the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat.

Furthermore, disaggregating the data by level of development does not give a different result. Among developed countries, the percentage with a policy to lower immigration is 39 per cent, as opposed to 34 per cent for developing countries (see annex table A.13).

712. An analysis derived from a comparison between a Government's immigration policies and the percentage of the population that are of either foreign birth or foreign nationality suggests that although immigration policies are to some extent influenced by the relative size of the foreign population, they are not simply a function of it. The linkage between immigration policies and the foreign population can be seen in table 72. The median percentage of foreign-born among countries with policies to raise immigration is 11.2 per cent; for countries that either wish to maintain immigration or do not intervene, it is 3.1 per cent; and for countries that seek to reduce immigration, 3.9 per cent. Those aggregated data, however, to some extent mask the heterogeneity among countries sharing the same immigration policy. Disaggregating the data by country shows that a particular immigration policy can encompass a wide range of relative sizes of foreign-born population (see figure 50).

2. *Africa*

713. In Africa, where international migratory movements are generally unregulated, the few receiving countries (the Congo, Côte d'Ivoire, Gabon and South Africa) are greatly outnumbered by the sending countries (Algeria, Angola, Benin, Botswana, Cameroon, Egypt, Morocco, Swaziland, Tunisia and Zaire). Nigeria is both a receiving and a sending country.

714. In Africa, only Equatorial Guinea and Namibia seek to raise the level of immigration for permanent settlement. The largest number of Governments (24) reported that they do intervene, while 17 desired to lower the level and 10 wanted to maintain the flow of immigrants (see annex table A.11). In its reply to the Seventh United Nations Population Inquiry Among Governments in 1992, the recently independent Government of Namibia reported that it was encouraging foreigners, mostly entrepreneurs and businessmen from Asia, to migrate and invest in the country by relaxing immigration restrictions.

715. Despite the status of Botswana as a sending country, acute shortages of skilled workers have necessitated the recruitment of skilled workers from abroad. To reduce bureaucratic delays for expatriates seeking to take up employment in Botswana, the Department of Labour and Social Security announced several changes in the recruitment procedures in November 1989, which should facilitate the process.

716. Political developments have produced unexpected surges in return migration. The crisis in Kuwait in 1981 had a severe impact on a number of sending countries. For example, the sudden return of over 400,000 Egyptians from Kuwait not only caused an emergency situation in Egypt but imposed enormous additional public expenditures.

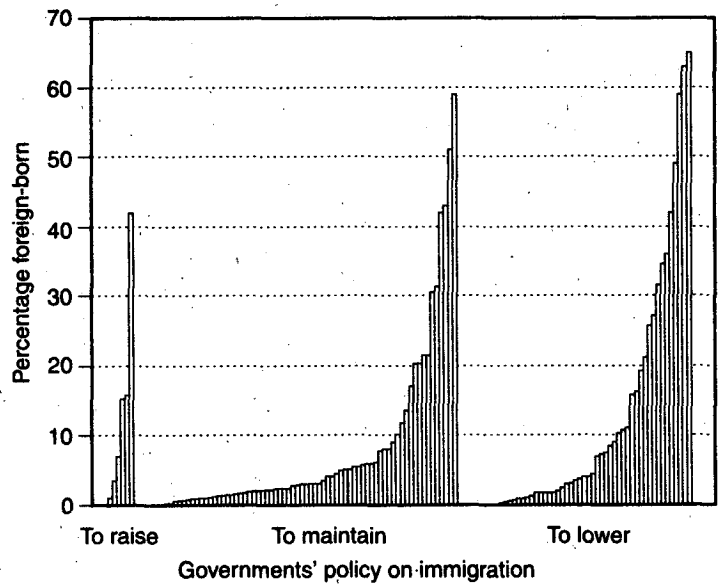
TABLE 72. COMPARISON OF IMMIGRATION POLICY AND PERCENTAGE FOREIGN-BORN
(Number of countries)

Percentage foreign-born	*Policy on immigration*			
	To raise	*To maintain*	*To lower*	*Total*
Fewer than 5.0	2	43	25	70
5.0-10.0	1	12	5	18
10.1-30.0	2	8	9	19
More than 30.0	1	7	8	16
Number of countries	6	70	47	123
Mean	14.2	8.5	13.5	10.7
Median	11.2	3.1	3.9	3.7

Sources: Demographic Yearbook, various years (United Nations); and the Population Policy Data Bank maintained by the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat.

NOTE: Number of countries based on 123 developed and developing countries for which the percentage of the population of either foreign birth or foreign nationality was available.

Figure 50. Governments' policy on immigration, by percentage foreign-born



Sources: Demographic Yearbook, various years (United Nations); and the Population Policy Data Bank maintained by the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat.

NOTE: Number of countries based on 123 developed and developing countries for which the percentage of the population of either foreign birth or foreign nationality was available.

717. Several countries have reacted to the problem of undocumented migration with deportation. The Government of Gabon was reported to have deported thousands of undocumented Nigerians in late 1992. In expelling over 500 Western Africans from the Gambia in 1992, the Government called upon Gambians to aid the security services in finding those who were residing in the Gambia without proper documentation. It was announced that anyone offering shelter to these migrants was liable to a one-year prison sentence and a fine of 20,000 CFA francs.

718. The Government of South Africa, facing economic recession and a softening of global demand for its exports, has seen the labour force in its mines, much of it composed of expatriate labour from neighbouring countries, shrink by 57,000 between 1990 and 1991. Another 20,000 lay-offs were expected in 1992. Several countries have been severely affected by this development. For example, the number of Mozambicans working in South African mines has fallen off sharply from 115,000 in 1975 to 50,000 by 1992. South Africa is exceptional in that it is one of the few countries in Africa that strictly controls the movement of immigrants across its borders.

719. In early 1992, thousands of Zambians living in neighbouring Zaire were told by the Government of Zaire to return to Zambia and find jobs in their own country. This action followed measures by the Government of Zaire to repatriate its nationals to their respective native provinces.

720. A number of African countries continue to be concerned about the emigration of skilled nationals. At the Southern African Development Coordination Conference in 1990, a policy document was adopted which highlighted, *inter alia*, the flight of skilled professionals from the region. It is estimated that by 1987, nearly 70,000 highly skilled workers, or 30 per cent of the skilled workers in sub-Saharan Africa, had emigrated, mainly to countries in the European Union. According to annex table A.14, seven countries in Africa have policies to lower the rate of emigration.

3. *Asia*

721. The significance of cross-national migration for promoting profound changes in Asia was noted by the participants at the Fourth Asian and Pacific Population Conference held in Bali, Indonesia, in August 1992:

> "These movements were mixing people of different backgrounds and cultures; they were diffusing new ideas throughout the region and, while stimulating development were also creating stresses within societies. Such movements were complex and encompassed a range of migrants that ranged from families to contract labour migrants, students, highly skilled transients, and asylum seekers." (United Nations, n.d., p. 26)

Reminiscent of a Europe 20 years ago, the Conference recognized that a substantial part of migratory movement in Asia was towards countries at a later stage of the demographic transition which were characterized by acute labour shortages, advanced levels of development and high wages. The Conference called for policies and programmes to monitor those migratory flows (see box 28) and for intercountry cooperation in exchanging information and in protecting the rights of migrants.

722. Migration in Asia is quite distinctive from that of other major areas in that it is: (*a*) organized; (*b*) supported if not encouraged by the sending countries because of substantial remittances; and (*c*) marked by the growing incidence of both illegal migration and the proportion of young female workers among the migrants.

BOX 28. TYPOLOGY OF INTERNATIONAL MIGRATION

Immigrants or permanent immigrants: Foreigners that have been granted the right to reside permanently in the country in which they find themselves;

Migrants for family reunification: Foreigners admitted by virtue of their close family ties with other migrants or with citizens of the country receving them;

Migrant workers: Foreigners admitted for the sole purpose of exercising an economic activity, usually for a fixed period of time;

Undocumented or irregular migrants: Foreigners that have not satisfied the requirements for entry, residence or exercise of an economic activity set by the country in which they find themselves;

Returning migrants: Citizens returning after having resided abroad for a certain period of time, usually a year;

Refugees: Persons that, owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, are outside their country of nationality and are unable or, owing to such fear, are unwilling to avail themselves of the protection of that country;

Asylum-seekers: Foreigners filing a claim for asylum because of a well-founded fear of persecution.

723. Within Asia, there has been a significant growth in contract migration in the past decade, with estimates suggesting 1 million such workers in Asia and another 3 million in the Western Asia. Among the labour-exporting countries, including Bangladesh, China, Egypt, India, Indonesia, Jordan, Malaysia, Nepal, Pakistan, the Philippines, Sri Lanka, the Republic of Korea, Thailand and Yemen, the Gulf crisis had severe consequences, both at the national level and at the level of individual migrants. As many as 2 million Arab and Asian migrants were estimated to have returned to their country of origin from Iraq, Kuwait, Saudi Arabia and other States in the Persian Gulf area following the invasion of Kuwait. The loss in remittances to the labour-exporting countries was estimated at some $750 million, which in turn contributed to a foreign-exchange crisis in several countries, especially Bangladesh, India, Pakistan, the Philippines and Sri Lanka. Only a small proportion of the returnees were reintegrated into the domestic labour market. In addition, the loss of remittances created indirect job losses, placed by one estimate at around 2 million. Other losses attributable to the Gulf conflict included a loss in airline revenue, departure taxes, and trade, and those resulting from the high cost of oil. For Sri Lanka, for example, the crisis meant the loss of 100,000 overseas jobs, and of $120 million in remittances, as well as and the diversion of scarce resources to repatriate nationals.

724. To compensate for the losses and damages incurred as a result of the invasion and occupation of Kuwait by Iraq, the Security Council of the United Nations, in its resolution 687 of 1991, established the United Nations Compensation Commission. Guidelines issued by the Commission concerning the payment of compensation to persons that left Iraq or Kuwait between August 1990 and March 1992 have been criticized as being insufficient by a number of Governments whose nationals had fled the two countries.

725. The migration industry that has sprung up to channel workers to jobs in the region has been viewed as an integral part of the migration process in Asia. In response to a number of reported abuses, however, several countries (for example, Indonesia, the Philippines and Thailand) have sought to exercise greater control over legal and illegal recruiters. For example, with $3.5 billion in foreign remittances annually at stake, or 25 per cent of the national foreign-exchange earnings, the Government of the Philippines has a vested interest in seeing that the recruitment industry functions efficiently and in an honest manner. In 1991, the 671 agencies officially registered with the Philippine Overseas Employment Agency, the government agency responsible for overseas contract workers, processed some 702,000 contract workers. It has been estimated that another 700 agencies, operating outside the law, have been exploiting workers seeking overseas employment by collecting fees and disappearing with the money. In Indonesia, each worker obtaining employment through one of the 220 authorized agencies must pay an agency fee, as well as a standard exit fee of 250,000 rupiahs (Rp; $1= Rp 1,900). Because of these costs, employers prefer undocumented migrants, most of whom go to Malaysia. Estimates of the number of undocumented Indonesian migrants in Malaysia range from 75,000 to 800,000.

726. In Pakistan, the Minister of State for Manpower and Overseas Pakistanis announced that the Government planned to send 200,000 Pakistanis to Western Asia by the end of 1992 and that 60,000 had already departed for Kuwait, Saudi Arabia and the United Arab Emirates by May 1992. Also, in a continuing effort to promote the employment of Pakistanis, the Governments of Pakistan and Malaysia signed an agreement in 1992 to send 45,000 Pakistani labourers to Malaysia. It is intended to distribute the employment equitably throughout Pakistan by engaging elected officials in the selection process.

727. Another aspect of immigration in Asia, although less well-documented because of its very nature, is undocumented migration, which is of particular concern to those countries experiencing labour shortages due to rapid declines in fertility rates, increasing levels of education and buoyant economies.

728. The Government of Malaysia, while moving towards stricter controls on foreign workers, has at the same time acknowledged that the demand for these workers was growing. With an unemployment rate that fell to 5.4 per cent and some 26,000 unfilled vacancies in 1991, the Government announced that foreign workers would be permitted, on a selective basis, to work in the manufacturing and service sectors. An annual fee ranging from 360 to 2,000 ringgit (M$; $1 = M$ 2.7) will be levied on foreign workers. A mass legalization programme proved to be of limited success: 34,000 undocumented workers had registered under the programme by the end of 1991. The Government has indicated, however, that it will continue its efforts to locate undocumented workers. Malaysia is also a sending country, with an estimated 90,000 Malaysians working in Singapore.

729. With an estimated 300,000 foreign workers, constituting 19 per cent of the labour force, the Government of Singapore, which carefully regulates the level of immigration, currently considers that the country may be reaching the limits of its capacity to absorb foreign workers. New regulations introduced in 1992 are intended to make local industries less dependent upon unskilled foreign labour and to increase the productivity of local labour.

730. Japan, the only developed country to have strenuously resisted importing labour from abroad as a means of meeting domestic labour shortages, has instead opted to export its labour-intensive technologies and to increase the productivity of local labour. Concerned about the impact that immigrants might have on Japanese society and the strains that would be placed on housing and other services, the revised immigration law of June 1990 further restricted the types of permissible immigration. Employers hiring undocumented workers or brokers supplying them can be imprisoned for up to three years and fined up to 2 million yen (¥; $1 = ¥130). Workers are also liable to a fine and imprisonment. An exception in the new law is made for foreign nationals of Japanese descent, 50,000 of whom are believed to have entered Japan in the second half of 1990, mostly from Brazil and Peru. In addition, the Government has been taking severe measures against undocumented migration. In 1990, an all-time high of 14,000 foreigners were refused entry upon arrival, while 30,000 people were indicted for unlawful residence and repatriated.

731. Despite a report in 1991 from the Ministry of Labour of the Republic of Korea, which estimatied a shortfall of 190,000 workers in the manufacturing sector, the Government had refused to relax its restrictions on the recruitment of foreign workers. Instead, it announced in 1991 that 10,000 military conscripts would be allowed to exchange military service for five years of employment in industry. In mid-1992, however, reflecting a policy shift in the direction of a limited accommodation of foreign workers, the Government announced two new programmes for foreign workers. The first, an amnesty programme, resulted in more than 61,000 undocumented workers registering with immigration authorities, who provided them with job-training permits valid until the end of 1992. The second programme will provide up to 10,000 visas to enable companies to import foreign workers for a specified period of on-the-job training.

732. With respect to international migration policies in Western Asia, the drive to reduce dependence upon foreign workers, already under way among many of the labour-importing countries in the late 1980s, has intensified in the wake of the Gulf war. The Government of Kuwait, fearing that it had become overly dependent upon foreign workers (60 per cent of the population in 1985 were foreign-born), began promoting the employment of Kuwaitis in the private sector in 1989. Following the liberation of Kuwait in 1991, former non-national residents were permitted to remain or return, subject to much stricter controls on their employment. Only 35 per cent of the 80,000 foreigners employed by the Government prior to the Gulf war have been rehired, while those laid off are being permitted to reapply for a residence permit if they can find employment in the private sector. Given that 90 per cent of the national workforce is employed in the government sector, it will be difficult to reduce the dependence of the private sector upon foreigners, particularly in the light of the ambitious reconstruction plans in Kuwait. In addition, of the 400,000 Palestinians in the country prior to the invasion, only 30,000-40,000 remained as of early 1992, following a series of deportations and departures.

733. In an attempt to promote "Omanization" and to reduce the proportion of expatriates, Oman issued new regulations in 1992, providing the private sector with unprecedented incentives to train Omanis, including grants covering 50-80 per cent of trainee salaries.

734. Reeling from the repatriation of some 300,000 Jordanians and Palestinians holding Jordanian passports during the Gulf crisis, the Government of Jordan reacted by launching an employment plan in February 1992. The influx, equivalent to 8 per cent of the national population, has placed enormous strains on the infrastructure of Jordan. Virtually overnight, the country has had to find accommodations for 60,000 families, unemployment has soared to 20 per cent and remittances from overseas workers have plummeted. The employment plan intends to reorganize local labour markets, in order to give priority in recruitment to Jordanians.

735. Yemen is another country that has had to cope with the massive influx of its nationals. Having declined to join the coalition aligned against Iraq, an estimated 1 million Yemenis were repatriated from the States in the Persian Gulf area (800,000 from Saudi Arabia). To cope with its repatriated nationals, the Government of Yemen has allocated land to a large number of them on condition that they produce foodstuffs and in this way promote self-sufficiency in food production, a high government priority.

736. Lebanon is faced with the opposite problem: a substantial exodus of its population. Many Lebanese that had returned to Lebanon following the conclusion of the civil war in 1990 have once again departed because of deteriorating economic conditions, high unemployment and recurring political tensions. Lebanese are continuing to request visas to Western countries, despite the fact that a number of these countries have declared that Lebanese are no longer entitled to refugee status, given the cessation of the civil conflict in Lebanon.

737. Israel is the only country in the region actively to promote immigration for permanent settlement. With the collapse of the former USSR, a new wave of Jewish immigration began; and between the end of 1989 and mid-1991, some 300,000 Soviet Jews migrated to Israel. In addition, another 15,000 Ethiopian Jews were evacuated to Israel in 1991, following the change of government in Ethiopia. However, the high unemployment rate in Israel, which for new immigrants was about 36 per cent in 1991, led to a sharp decline in new arrivals in the period from 1991 to mid-1992. A report prepared for the Government of Israel in 1991 warned that unless basic economic reforms were immediately undertaken, 200,000 of the newly arrived immigrants would attempt to leave Israel in the next few years. In July 1992, the newly elected Israeli Government announced that one of its major priorities would be to promote increased Jewish immigration from the former Soviet Union, which by mid-1992 had fallen to its lowest level in two years—down to about 3,000 immigrants a month. With the new Government, immigration from the former USSR began to increase and there were some 7,000 arrivals during October 1992.

4. *Europe*

738. As a consequence of the persistent and even widening socio-economic gap between the developed and developing countries, as well as the dramatic political and economic changes occurring in Eastern Europe and the newly independent countries of the former USSR, immigration policies in the receiving countries of Europe in the 1990s can be viewed as a reaction to those two developments. The three pillars of European immigration policy consist first of policies that focus on staunching the growing influx of asylum-seekers and undocumented immigrants from developing countries, Eastern Europe and the former Soviet Union. The growing hostility and xenophobia towards immigrants in many host countries have provided an additional impetus to controlling their entry. One manifestation of this concern was the convening of a number of meetings in 1991 and 1992 to discuss the problem and to propose solutions to the current and expected future influx.[2] Concomitantly, with the opening of borders among the member States of the European Union, Governments of member States have been rushing to harmonize their national policies on international migration and refugees by 1 January 1993, the beginning of the Single European Market, which constitutes the second policy pillar. The third pillar of immigration policy has been that of host Governments continuing to facilitate the integration of immigrant groups that are already resident.

739. Overwhelmed by the large number of asylum-seekers and undocumented immigrants, recipient countries have implemented measures to discourage such movements. Specific policies relating to refugees and asylum-seekers is discussed in chapter I in this volume. To cope with undocumented immigration, a two-pronged strategy is being pursued. First, Governments are imposing stricter controls at the frontiers, where undocumented migrants are either being arrested or turned back. Secondly, once inside the country, undocumented migrants that either entered legally and overstayed their visas or entered illegally are being repatriated.

740. Specific measures include those taken to tighten the granting of visas. France, for example, introduced a transit visa requirement in 1991 for the nationals of 10 countries that had in the past often requested political asylum while transiting through France. In the same year, the United Kingdom began requiring visas for Ugandan nationals. Several countries (France and the United Kingdom) have begun fining airlines for carrying passengers lacking the proper papers.

741. To combat the employment of undocumented aliens, France, Germany and the Netherlands have increased the penalties that can be imposed on employers of undocumented migrants. In the Netherlands, employers are now liable for the cost of expelling undocumented workers and additional inspectors are being hired to strengthen enforcement. In Germany, new legislation stipulates that all dependent workers must possess a social security card bearing their photograph. With the primary objective of restricting the number of foreigners entering Austria, a law was passed in 1990 regularizing the situation of clandestine workers and permitting them to become part of the labour force. In addition, the new law limits the entry of migrant workers into the country, so that they do not exceed 10 per cent of the labour force. In France, a novel scheme was inaugurated on a trial basis, whereby undocumented migrants may claim the price of an airline ticket for themselves and family members to return to the country of origin, as well as an allowance of 1,000 French francs (FF) for each adult family member and FF 300 for each child. Given the limited response—fewer than 100 persons took advantage of this assisted repatriation—it was replaced by a resettlement assistance scheme in September 1991.

742. With the free movement of nationals within the 12-member European Union that had been originally slated to go into effect on 1 January 1993, the second pillar of European migration policy rests on harmonizing the countries' differing national migration policies. In July 1991, for instance, agreement was reached by the countries of the European Union on a list of countries whose nationals must possess a European Union entry visa in order to be admitted

to a member State. Furthermore, a list of barred persons would be prepared, similar to that assembled by the eight signatories to the Schengen Agreement of June 1990 (Belgium, France, Germany, Italy, Luxembourg, the Netherlands, Portugal and Spain), which in the near future will abolish controls at the interior borders. Under the terms of the Schengen Agreement, a foreigner barred by a signatory will automatically be refused entry by the other signatories. Patterned along the lines of the Schengen Agreement, 27 European countries, including all those in Eastern Europe, met in Germany in October 1991 and agreed to adopt a series of measures concerning migration. It was agreed to strive to abolish clandestine immigration and employment, to intensify and harmonize border controls, to cooperate in promoting development, to authorize migration for training and fixed-term employment and to encourage cross-border employment. In late 1992, it was reported that the free movement of persons with the European Union, scheduled to go into effect in January 1993, had been indefinitely postponed.

743. The third pillar of migration policy has been concerned with facilitating the integration of immigrants into the host countries. The magnitude of the integration process can be gleaned from the fact that the legally resident foreign-born population in Southern and Western Europe and in the Nordic countries was estimated to have grown to some 16 million by the end of 1990. Some countries have attempted to improve the prospects for integration through attribution or acquisition of the host country nationality and thus in recent years have amended their laws to permit young foreigners to acquire citizenship more easily. In Belgium, under the terms of an Act passed in 1991, Belgian citizenship will be granted automatically to third-generation immigrants under age 18, while those over that age will be able to claim citizenship by filing a statement with the Population Registry. Second-generation immigrants will also be able to acquire citizenship more easily. In Germany, the Foreigners Act that came into force in 1991 relaxed the requirements for naturalization, especially for young foreigners born or raised in Germany. In addition, provision was made for foreigners aged 15-21 who grew up in Germany and returned to their home country, but were unable to adjust and wished to return to Germany. In Switzerland, as of 1990, anyone acquiring Swiss nationality may keep his or her former nationality. Three countries (Belgium, Denmark and the Netherlands) have enacted legislation making it easier for a foreign child to acquire citizenship if one of the parents was born in the country.

744. Other policies to ease integration into the host country have focused on the schooling of migrant children and education policies. For example, in Sweden, children that speak another language at home are entitled to instruction in their mother tongue in school. France and Belgium have created priority education areas.

745. As a consequence of the dramatic political and economic changes in Eastern Europe, most countries in the region have removed legal restrictions on emigration, even if some financial constraints still remain. This has been reflected in an upsurge in various forms of short-term migration (e.g., tourism and temporary or seasonal work), as well as permanent migration to Western Europe. Several countries have signed treaties with some Western European countries to permit temporary employment on a limited scale and to provide opportunities for skill or language training during the period of employment abroad. Germany, for example, signed agreements with the former Czechoslovakia,[3] Hungary and Poland involving project-linked work, seasonal work, work in border areas and a guest-worker programme, although the total number of migrants involved remains relatively small, on the order of 210,000 persons. Germany, in addition, continues to accept ethnic Germans (*Aussiedler*), the majority from the former Soviet Union. The *Aussiedler*, of whom 222,000 migrated to Germany in 1991, are entitled to German citizenship and to various forms of assistance upon arrival.

746. The Czech Republic, Hungary and Poland have increasingly become a temporary destination or transit point for those attempting to enter Western Europe, in particular from Romania, the former USSR, Asia, Africa and Western Asia. Because persons apprehended trying to enter Western European countries illegally are returned to their country of origin—the last country in which they resided—the Czech Republic, Hungary and Poland have implemented more stringent border controls. Foreigners entering Hungary must have 1,000 forints for each day of their stay and sufficient funds to pay for their return; 200,000 persons have been turned back at the border for insufficient funds, while 20,000 undocumented immigrants were apprehended at the frontiers in 1990. In 1991, the number of people apprehended for attempting to cross illegally the Polish-German border rose sharply to some 10,000 people. The Czech Republic and Poland have begun requiring tourists to possess a return ticket and a given amount of currency.

747. With rising unemployment, immigration has led to growing tensions in the host countries of Eastern Europe and to measures to protect domestic labour markets. With an estimated 50,000 undocumented workers in Hungary in 1991, the number of work permits that can be issued in certain regions is being linked to the occupational structure of the unemployed. Foreigners can only assume jobs for which no Hungarians can be found and only for a fixed period. The imposition of custom duties and taxes, combined with efforts to protect local labour markets in eastern Poland from competition from lower-paid undocumented workers from Belarus, the Russian Federation and Ukraine will, it is hoped, deter additional undocumented migration to Poland.

748. As for the foreign contract workers that had been recruited in the 1970s and 1980s under bilateral agreements between the Eastern European countries and various developing countries (Angola, China, Cuba, Ethiopia, Nicaragua, Viet Nam), most of these agreements have expired or will soon expire. They are not likely to be renewed, given the high unemployment, political changes and visible resentment towards foreign workers. A contingent of 17,000 Vietnamese workers in Bulgaria returned home in 1991 and the rest were expected to leave in 1992.

749. A number of other modifications to migration policies and laws have been undertaken in Eastern Europe. For example, in August 1991, the Government of Hungary established the Committee for Migration to make suggestions and recommendations on migration policies. In mid-1991, the Polish Parliament had under consideration a bill to revise the law concerning Polish citizenship in order to recognize the right of repatriation to persons of Polish origin, particularly those from the former USSR. The size of this population is thought to be between 2 million and 3 million. In addition, passport offices are no longer under the control of the police and the validity of passports has been extended from three to five years. Other legal changes have contributed to an increase in the number of return migrants, particularly in the Czech Republic and Poland. In Poland, this was due to the abrogation of penalties for illegal emigration,

while in the Czech Republic, as a result of the Act of Extra-Judiciary Rehabilitations, dual citizenship for those residing in the Czech Republic is now possible. A number of barriers to emigration still exist in Hungary, however, where citizens that emigrate forfeit their pension, while their more valuable personal possessions become part of the national heritage.

750. As concerns the three former Soviet Baltic republics of Estonia, Latvia and Lithuania, now considered part of Northern Europe, policies have been introduced to prevent an excessive inflow of migrants. For example, Estonia is enforcing an annual immigration quota that is not to exceed 0.1 per cent of the resident population. Massive immigration to Estonia and Latvia from the other republics during previous decades had resulted in the share of Estonians in Estonia falling to 61 per cent, while the share of Latvians in Latvia fell to 52 per cent, according to 1989 census results. The three countries have also erected financial barriers against migrant workers. In some cases, financial assistance has been offered for re-emigration to the country of origin, or discriminatory economic measures have been introduced in order to provoke the outflow of migrants. In Latvia, only persons that resided there prior to 1940 and their heirs are eligible to become shareholders in newly created companies and only they are entitled to full pension privileges. In Lithuania, under a newly enacted privatization law, only persons that resided in the country before 1940 and their heirs have the right to acquire privatized companies.

751. The countries of Southern Europe, which in the recent past supplied workers to the labour-deficient countries of Western and Northern Europe and to Northern America, have been transformed into recipient countries, drawing large numbers of migrants, for the most part undocumented, from developing countries and Eastern Europe. One means of coping with this growing category of migrants has been to organize legalization programmes. Under the 1990 amnesty law in Italy, undocumented migrants from outside the European Union had until June 1990 to register and obtain permits without incurring a penalty. This programme resulted in the regularization of some 220,000 foreigners. In Spain, the second amnesty drive held in 1991—the first was in 1985—led to the filing of 133,000 requests for legalization. By the end of 1991, 104,000 requests, mostly from nationals of Argentina, the Dominican Republic, Peru and Morocco, had been granted. Portugal intended to organize an amnesty programme in 1992, with undocumented workers being given four months in which to lodge a request for legalization. Nationals of Angola, Cape Verde, Guinea-Bissau, Mozambique and Sao Tome and Principe (former African colonies of Portugal) will be eligible for a residence permit if they have lived continuously in Portugal since June 1986.

752. Another component of migration policy in Southern Europe has involved the implementation of measures to accommodate the accelerating pace of return migration to Italy, Greece, Portugal and Spain. For example, Italy experienced the return of 54,000 of its citizens in 1989, while return migration to Portugal has been estimated at about 25,000 per annum. In Spain, the size of the return migration stream was on the order of 20,000 in 1990. As a consequence of recent upheavals in the former USSR, Greece has had to accommodate the immigration of ethnic Greeks (Pontics). Between 1990 and mid-1991, almost 20,000 ethnic Greeks came to Greece from the former Soviet Union. A survey undertaken by the General Secretariat for Greeks Abroad indicated that the Pontics' decision to immigrate to Greece was based both on their connections to Greece and on economic reasons.

753. Any liberalization of immigration policy in Europe in the near future appears quite unlikely, given the current economic and political environment. Owing to the combined pressures of a total unemployment rate that climbed to 9.4 per cent in 1992 for 17 countries of Europe (excluding Eastern Europe), a growing animosity to any relaxation of immigration controls on the part of the public and the growth of right-wing nationalist movements, future immigration will probably be limited to categories of highly skilled workers for which severe shortages have developed.

5. *Latin America*

754. An interesting aspect of immigration policy in Latin America is the fact that three countries (Argentina, Guyana and Uruguay), all in South America, reported that they sought to raise the level of immigration (see annex table A.13). Recalling earlier waves of European immigration to South America, a number of countries in the region are examining ways to facilitate the immigration of skilled workers from Eastern European countries and the former Soviet Union. One such plan, which was announced by Argentina in February 1992, proposed to lure immigrants from Eastern and Central Europe to Patagonia and other underpopulated regions of the country. The plan calls for the admission of 100,000 immigrants from the former USSR, to be funded in part by the European Union. The Government has announced that it would be willing to admit 300,000 immigrants over the next three years provided either the immigrants were able to bring in substantial sums of capital or the European Union provided financial support (as much as $35,000 per immigrant, according to one report). As of mid-1992, no final agreement had been reached on this plan.

755. Bolivia, Chile, Paraguay, Uruguay and Venezuela are also examining ways to promote immigration. The Government of Chile is considering a plan to attract skilled immigrants from Eastern Europe. The Government was expected to vote on a new immigration law in mid-1992. In Venezuela, the Ministry of Planning is organizing the recruitment of 50,000 technicians from Central and Eastern European countries over the next five years, based on detailed requests from potential private sector employers. Those immigrants selected will receive guaranteed employment, free transportation to Venezuela, a cash payment to help defray relocation costs and language training.

756. The issue of undocumented migration has been a concern in the region, with a number of countries attempting to tackle this problem through various means. Such is the case of Chile and Ecuador, which signed a bilateral agreement in September 1990 concerning the situation of undocumented migrants in the two countries. Nationals of either country that had entered the other country before 11 March 1990 and were residing without proper documentation were given one year to apply for the regularization of their immigration status. The current status of the agreement is not known, given that the one-year deadline was to take effect only after the agreement had been ratified by the respective parliaments, had been legally promulgated in each country and both parties had notified each other of its approval. Although Chile promulgated the agreement in May 1991, there is no information readily available on the status of the agreement in Ecuador. Argentina announced an amnesty in late 1991 for the thousands of unauthorized immigrants from neighbouring countries. Several of the affected countries (Bolivia, Chile, Paraguay and Uruguay) have recipro-

cated by adopting similar measures for undocumented Argentines in their respective countries.

757. A number of other developments have taken place in Latin America. As of 1991, Cuban migrants were still being accepted by the United States under the Mariel Migration Agreement. In August 1991, the Cuban Government announced that it would immediately lift restrictions on travelling abroad for persons aged 20 years or over. Previously, emigration and foreign travel were limited to women aged 30 or over and men aged 35 or over.

758. In June 1991, a Presidential decree in the Dominican Republic ordered the expulsion of thousands of Haitian plantation workers, many of whom had been resident in the country for many years or had even been born in the Dominican Republic. The decree was reportedly issued following a report by the Government of Haiti concerning adverse recruitment practices and employment conditions for Haitian seasonal workers in the Dominican Republic.

759. Concerning the brain drain, given the poor economic prospects in the region and the provisions of the United States Immigration Act of 1990, the emigration of highly trained persons from Latin America to the United States, particularly from the Southern Cone countries (Argentina, Bolivia, Chile, Paraguay and Uruguay) is likely to continue unabated. The 1990 Act provided for significant increases in the volume of immigration, including the addition of 140,000 slots for highly skilled immigrants. A well-developed system of higher education and the lure of better employment conditions and higher wages abroad, for example, have resulted, according to one estimate, in the exodus of approximately 50,000 Argentine scientists and researchers to other countries.

760. It is believed that, at least in the Mexican case, improved economic conditions in Mexico have tended to increase migration to the United States. Potential migrants have been able to afford to travel to the border, pay the migrant smugglers to transport them across the border and then support themselves in the United States until they find employment. The 1992 free-trade agreement negotiated between Canada, the United States and Mexico is not expected to have an appreciable impact on migratory practices, as it does not contain provisions for the free movement of people between the signatory countries.

761. A regional economic grouping that will likely have implications for future immigration trends in the region is the economic area established by Argentina, Brazil, Paraguay and Uruguay. Created along lines similar to that of the European Union, the pact, once it enters into force in 1995, will permit the free movement of persons, goods and capital among the member countries. Another common market established in 1991 by the Andean Pact countries (Bolivia, Colombia, Ecuador, Peru and Venezuela) does not appear to consider questions relating to migratory movements between its members.

6. *Northern America*

762. Canada and the United States of America, both traditional receiving countries, are satisfied with the level of immigration, although Canada seeks to raise the level of permanent immigration while the United States intends to maintain it. The goal of the United States Immigration Act of 1990 is to increase the competitiveness of the national economy by admitting more highly skilled and highly educated immigrants, while preserving the emphasis given to family reunification (see box 29).

BOX 29. ANATOMY OF AN IMMIGRATION POLICY: UNITED STATES OF AMERICA, 1954-1992

1954—The United States Congress passed the Immigration and Nationality Act (McCarran-Walter Act), which reaffirmed the previous national-origins quota system and established a preference system for skilled workers and relatives of American citizens and permanent resident aliens.

1965—The Kennedy Amendments abolished the national-origins quota system, fixed a ceiling on immigration from the western hemisphere and expanded the preference system for allocating immigrant visas to a seven-category system favouring close relatives of American citizens and permanent resident aliens, those with needed occupational skills and refugees.

1986—The Immigration and Control Act of 1986 seeks to curb undocumented immigration by penalizing employers of undocumented migrants, establishing a legalization programme to which over 3 million undocumented migrants apply and stepping up enforcement at the United States–Mexico border.

1988—A lottery system was set up, establishing permanent residency for certain "disadvantaged" nationalities.

1990—On the assumption that immigration provides economic gains to the country, the Immigration Act of 1990 increases to 714,000 the number of visas to be granted annually in the fiscal years 1992-1994, but decreased the number to 675,000 in 1995. In addition, the number of visas for employment-based immigrants is trebled from 54,000 to 140,000 annually. The employer, however, must prove that no suitably qualified American can be found. Provision was also made for a new three-year category of "diversity immigrants" for nationals of certain countries disadvantaged by the current system. Under that category, 120,000 visas will be issued during the fiscal-year period 1992-1995.

1990—In attempting to understand the push factors motivating the large streams of undocumented migration to the United States (the number of unauthorized immigrants in the United States is estimated to be 2 million and 3.5 million people and to be growing at 200,000 per annum), a report was submitted to the Congress by the United States Commission for the Study of International Migration. The report concluded that expanded trade between the sending countries and the United States was the most important long-term remedy to the problems posed by undocumented migration.

1992—The Government-appointed Commission on Agricultural Workers reported that the 1986 Immigration Reform and Control Act had done nothing to halt the exploitation of migrant farm-workers, one of its principal objectives. It concluded that undocumented immigration continues largely unchecked because of lax enforcement and widespread fraud, and the tenacity of the migrants, mostly Mexicans, in finding employment in the United States.

763. Reflecting a shift in its approach to immigration from a short-term to long-term planning perspective, the Government of Canada prepared a five-year immigration plan, which went into effect in 1991. The new plan raised the level of immigration to 220,000 slots for 1991 and to 250,000 for each of the four subsequent years. The plan,

which concerns only landed immigrants and not temporary residents or refugee claimants, maintains a balance between family, refugee and independent categories. The plan also provides for an annual programme review. Changes were also made to the selected worker category, making the selection process more attuned to labour-market needs.

7. *Oceania*

764. According to annex table A.13, in Oceania, only New Zealand has a policy to raise the level of immigration, while one country (Federated States of Micronesia) seeks to lower the level, two countries (Marshall Islands and Vanuatu) report no intervention and the other nine countries seek to maintain the level.

765. The two major recipient countries in the region, Australia and New Zealand, continue to accept relatively large numbers of immigrants in relation to their small populations, even in the presence of an economic recession and relatively high unemployment. Despite a climate of limited employment opportunities in Australia, the 1991-1992 planned programme of 111,000 immigrant slots was only a slight decline from the 123,566 admitted migrants during the previous year. Indicative planning figures have established 118,000 places for the period 1992-1993. Recent developments include a loan fund to assist independent immigrants from Central and Eastern Europe and greater information on job opportunities in Australia to allow migrants to better assess their labour-market prospects. A report prepared for the Australian Government in 1991 concludes that based on historical experience in Australia, there is no reason to believe that future immigration will lead to serious problems within the community. The report warns, however, that extreme increases or decreases in the volume of immigration could lead to considerable strain and conflicts but states that such radical intake changes are unlikely.

766. In early 1991, the Government of New Zealand announced a target of a net gain of from 15,000 to 20,000 immigrants per annum. Under the new policy, immigrants would not need prearranged jobs and the occupational priority list would be abolished. Points would be awarded on the basis of employability, age and financial resources. This policy is in reaction to the emigration of 140,000 New Zealanders, or nearly 10 per cent of the labour force, during the past decade.

767. International migration is negligible in Melanesia, except in Fiji, which has experienced increasing levels of emigration as a consequence of political instability. The size of the Indian population is declining with respect to the native Fijian population and the Indian population is expected to become a minority for the first time since 1946. There is, however, a high level of inter-island mobility among the youthful population in Melanesia, which may lead to international migration, as continuing rapid population growth exerts mounting population pressure on fragile island economies. Migration, rather than policies to control population, has been the traditional response to population pressures.

768. In Papua New Guinea, the population growth rate has increased, as the country moves through the early stages of the demographic transition. The two coastal provinces of West New Britain and North Solomons have experienced significant immigration. The conditions that are most conducive to successful population policies—such as the integration of population and development and the reduction of the economic significance of children—are absent in Papua New Guinea, and it is likely that continued growth will lead to increased immigration.

769. In Polynesia, international migration is common, particularly between island nations and the countries with which they are historically affiliated. Samoa and Tonga, which have significant proportions of their populations abroad, send immigrants to Australia, New Zealand and the western United States, although much of the movement is temporary and circular in nature.

770. Policies to address the issue of international migration in the developing countries of Oceania are implicit rather than explicit, especially since there is disagreement about the impact of migration. Some research has concluded that migration retards development by removing the most qualified people from their island communities. Other studies have found that migration is a dynamic and positive process because it provides needed capital for infrastructure in the form of remittances. In Tonga, for example, remittances from overseas workers constitute the largest source of foreign currency in the economy.

8. *Union of Soviet Socialist Republics (former)*

771. The breakup of the former Soviet Union has transformed what was previously internal migration into international migration. Although the predicted massive flow of immigrants from the former USSR has not materialized, with a combined population of 285 million and some 130 ethnic groups, a significant migration potential remains. A new law allowing anyone with a passport to emigrate was approved "in principle" in May 1991 and was scheduled to take effect in January 1993. The substantial cost of the passport, equivalent to three months' average wages, however, will pose a financial obstacle for many people. There is no additional information readily available on the current status of this law.

772. Emigration from the former USSR has been of three major types. The first has been migratory movements between the various former republics, which were already under way prior to breakup of the USSR, as a consequence of independence movements and protracted ethnic conflict in the various republics. Armenians fleeing Azerbaijan, Azeris leaving Armenia and 200,000 people leaving Uzbekistan are examples of this type of movement. Such movements are likely to continue, given the continuation of ethnic flare-ups in the newly independent successor States, the implementation by some countries of measures designed to provoke an exodus of the non-indigenous population and the results of the USSR census of 1989, which showed that about one in five Soviets (about 55 million people) lived outside their ethnic region. Seeking to address several deficiencies that have hindered permanent resettlement of displaced populations, such as rigid internal passport controls and registration systems, the Russian Federation established the Committee on Migration in December 1991, to be the major body for migration and refugee issues. One of the key tasks of the Commiteee will be to coordinate activities of international and non-governmental organizations.

773. The second type of movement has involved the emigration of ethnic groups to Western Europe, Israel and the United States. Included in this category are an estimated 300,000 ethnic Germans (*Aussiedler*) that departed for Germany between 1989 and 1991, taking advantage of exit visas that the former USSR had provided for the reunification of families. To preclude further migration of *Aussiedler*, the Government of Germany has provided aid to the former republics and has secured the right to establish German

schools, libraries, and radio and television stations in those areas. During the same period, 300,000 Soviet Jews emigrated to Israel, while about 28,000 ethnic Greeks also departed.

774. The third movement has been of an undocumented nature. For example, in 1991, tourist movements from the former USSR to Hungary and Poland substantially rose, with some tourists staying in those countries for an extended period of time. It is estimated that in 1991 there were about 60,000 undocumented persons from the former USSR in Hungary and another 80,000 in Poland.

NOTES

[1]The area of the former Union of Soviet Socialist Republics currently comprises: (*a*) the three Baltic States (Estonia, Latvia and Lithuania); and (*b*) the 12 republics that have constituted themselves into the Commonwealth of Independent States (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Republic of Moldova, Russian Federation, Tadjikistan, Turkmenistan, Ukraine and Uzbekistan).

[2]For example, the Conference of Ministers on the Movement of Persons Coming from Central and Eastern European Countries, Vienna, 24-25 January 1991; the International Conference on Migration, Rome, 13-15 March 1991; the Informal Expert Group Meeting on International Migration, Geneva, 16-19 July 1991; the Regional Seminar on Prospects of Migration in Europe Beyond 1992, Athens, 1-3 October 1991; The New Europe and International Migration, Turin, November 1991; Conference on Mass Migration in Europe, Vienna, 5-7 March 1992.

[3]The former state of Czechoslovakia was dissolved on 31 December 1992 and became the independent States of the Czech Republic and Slovakia on 1 January 1993.

ANNEX

TABLE A.13. GOVERNMENTS' PERCEPTIONS AND POLICIES WITH RESPECT TO INTERNATIONAL IMMIGRATION, BY LEVEL OF DEVELOPMENT AND GEOGRAPHICAL REGION, 1993

Rates too low			*Rates satisfactory*				*Rates too high*			*Total number of countries*
No direct intervention (1)	*Intervention to maintain* (2)	*Intervention to raise* (3)	*Intervention to raise* (4)	*Intervention to maintain* (5)	*No direct intervention* (6)	*Intervention to lower* (7)	*Intervention to lower* (8)	*Intervention to maintain* (9)	*No direct intervention* (10)	(11)
					World					
0	0	5	3	64	47	28	39	1	3	190
					More developed regions					
0	0	1	1	24	8	9	13	0	0	56
					Less developed regions[a]					
0	0	4	2	40	39	19	26	1	3	134
					Least developed countries					
0	0	1	0	15	17	2	9	1	2	47
					Regions					
					Africa					
					Eastern Africa					17
—	—	—	—	Rwanda Seychelles	Comoros Eritrea Ethiopia Madagascar Mozambique Somalia Uganda United Republic of Tanzania	Kenya Mauritius Zimbabwe	Burundi Djibouti Zambia	—	Malawi	
					Middle Africa					9
—	—	Equatorial Guinea	—	Chad Congo São Tome and Principe Zaire	Angola Central African Republic	Cameroon	Gabon	—	—	
					Northern Africa					6
—	—	—	—	—	Algeria Morocco Tunisia	Egypt	Lybian Arab Jamahiriya Sudan	—	—	
					Southern Africa					5
—	—	—	Namibia	Lesotho South Africa	Botswana Swaziland	—	—	—	—	

TABLE A.13 *(continued)*

Rates too low			*Rates satisfactory*				*Rates too high*			*Total number of countries* (11)
No direct intervention (1)	*Intervention to maintain* (2)	*Intervention to raise* (3)	*Intervention to raise* (4)	*Intervention to maintain* (5)	*No direct intervention* (6)	*Intervention to lower* (7)	*Intervention to lower* (8)	*Intervention to maintain* (9)	*No direct intervention* (10)	
					Western Africa					16
—	—	—	—	Mali Nigeria	Benin Burkina Faso Cape Verde Guinea Niger Senegal Togo	Gambia Liberia	Côte d'Ivoire Ghana Guinea-Bissau Sierra Leone	—	Mauritania	
					Total					
0	0	1	1	10	22	7	10	0	2	53
					Asia					
					Eastern Asia					5
—	—	—	—	China Democratic People's Republic of Korea	Japan Mongolia	Republic of Korea	—	—	—	
					South-eastern Asia					10
—	—	—	—	Cambodia Lao People's Democratic Republic Malaysia Myanmar	Philippines Viet Nam	Brunei Darussalam Singapore Thailand	Indonesia	—	—	
					Southern Asia					9
—	—	—	—	Afghanistan Bangladesh India Maldives	Pakistan	Sri Lanka	Bhutan Iran (Islamic Republic of) Nepal	—	—	
					Western Asia					14
—	—	Israel	—	Iraq Qatar Syrian Arab Republic	Jordan	Bahrain Cyprus Turkey	Kuwait Lebanon Oman Saudi Arabia United Arab Emirates Yemen	—	—	
					Total					
0	0	1	0	13	6	8	10	0	0	38
					Europe					
					Eastern Europe					6
—	—	—	—	Bulgaria Poland Romania		Czech Republic[b] Hungary Slovakia[b]	—	—	—	
					Northern Europe					10
—	—	—	—	Denmark Finland Iceland Ireland Sweden	—	Norway	Estonia Latvia Lithuania United Kingdom	—	—	
					Southern Europe					14
—	—	—	—	Albania Andorra Holy See	Bosnia and Herzegovina Croatia Malta Portugal Slovenia Yugoslavia[c]	Spain	Greece Italy San Marino The former Yugoslav Republic of Macedonia	—	—	

TABLE A.13 *(continued)*

Rates too low			*Rates satisfactory*				*Rates too high*			*Total number of countries*
No direct interention (1)	*Intervention to maintain (2)*	*Intervention to raise (3)*	*Intervention to raise (4)*	*Intervention to maintain (5)*	*No direct intervention (6)*	*Intervention to lower (7)*	*Intervention to lower (8)*	*Intervention to maintain (9)*	*No direct intervention (10)*	*(11)*
					Western Europe					9
—	—	—	—	—	—	Austria Liechtenstein Monaco Switzerland	Belgium France Germany Luxembourg Netherlands	—	—	
					Total					
0	0	0	0	11	6	9	13	0	0	39
					Latin America					
					Caribbean					13
—	—	—	—	Cuba Dominica Grenada Saint Kitts and Nevis Saint Lucia Saint Vincent and the Grenadines Trinidad and Tobago	Haiti Jamaica	Barbados	Antigua and Barbuda Bahamas Dominican Republic	—	—	
					Central America					8
—	—	—	—	Belize	Guatemala Nicaragua	El Salvador Mexico Panama	Costa Rica Honduras	—	—	
					South America					12
—	—	Argentina Uruguay	Guyana	Brazil Venezuela	Bolivia Chile Colombia Ecuador Paraguay Peru	—	—	—	Suriname	
					Total					
0	0	2	1	10	10	4	5	0	1	33
					Northern America					2
—	—	—	Canada	United States of America	—	—	—	—	—	
					Total					
0	0	0	1	0	0	0	0	0	0	1
					Oceania					
					Australia–New Zealand					2
—	—	—	New Zealand	Australia	—	—	—	—	—	
					Melanesia					4
—	—	—	—	Fiji Papua New Guinea Solomon Islands	Vanuatu	—	—	—	—	
					Micronesia					4
—	—	—	—	Kiribati Nauru	Marshall Islands	—	Micronesia (Federated States of)	—	—	
					Polynesia					3
—	—	—	—	Tonga Tuvalu	—	—	—	Samoa	—	
					Total					
0	0	1	0	8	2	0	1	1	0	13

TABLE A.13 *(continued)*

Rates too low			*Rates satisfactory*				*Rates too high*			*Total number of countries*
No direct intervention (1)	*Intervention to maintain* (2)	*Intervention to raise* (3)	*Intervention to raise* (4)	*Intervention to maintain* (5)	*No direct intervention* (6)	*Intervention to lower* (7)	*Intervention to lower* (8)	*Intervention to maintain* (9)	*No direct intervention* (10)	(11)
				Union of Soviet Socialist Republics (former) [d]						12
—	—	—	—	Armenia Azerbaijan Belarus Georgia Kazakhstan Kyrgyzstan Republic of Moldova Russian Federation Tajikistan Turkmenistan Uzbekistan	Ukraine	—	—	—	—	
				Total						
0	0	0	0	11	1	0	0	0	0	12

Source: The Population Policy Data Bank maintained by the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat.

[a]Including the least developed countries.

[b]The former State of Czechoslovakia was dissolved on 31 December 1992 and became the independent States of the Czech Republic and Slovakia on 1 January 1993.

[c]Unless otherwise indicated, data for Yugoslavia shown in this publication for the period beginning 27 April 1992 refer to the Federal Republic of Yugoslavia in terms of its boundaries as they exist from that date. Data for the period prior to 27 April 1992 refer to the former Socialist Federal Republic of Yugoslavia in terms of its boundaries as they existed prior to that date.

[d]Not including Estonia, Latvia and Lithuania, which are included in Northern Europe.

TABLE A.14. GOVERNMENTS' PERCEPTIONS AND POLICIES WITH RESPECT TO INTERNATIONAL EMIGRATION, BY LEVEL OF DEVELOPMENT AND GEOGRAPHICAL REGION, 1993

Rates too low			*Rates satisfactory*				*Rates too high*			*Total number of countries*
No direct intervention (1)	*Intervention to maintain* (2)	*Intervention to raise* (3)	*Intervention to raise* (4)	*Intervention to maintain* (5)	*No direct intervention* (6)	*Intervention to lower* (7)	*Intervention to lower* (8)	*Intervention to maintain* (9)	*No direct intervention* (10)	(11)
					World					
1	1	4	2	62	71	8	29	2	10	190
					More developed regions					
0	0	0	0	23	20	4	7	0	2	56
					Less developed regions[a]					
1	1	4	2	39	51	4	22	2	8	134
					Least developed countries					
1	1	0	0	13	21	0	9	0	2	47
					Regions					
					Africa					
					Eastern Africa					17
—	Rwanda	—	—	Djibouti Kenya Mauritius	Burundi Comoros Eritrea Ethiopia Madagascar Malawi Mozambique Somalia Uganda United Republic of Tanzania Zambia	—	Zimbabwe	Seychelles	—	

TABLE A.14 *(continued)*

Rates too low			*Rates satisfactory*				*Rates too high*			*Total number of countries* (11)
No direct intervention (1)	*Intervention to maintain* (2)	*Intervention to raise* (3)	*Intervention to raise* (4)	*Intervention to maintain* (5)	*No direct intervention* (6)	*Intervention to lower* (7)	*Intervention to lower* (8)	*Intervention to maintain* (9)	*No direct intervention* (10)	
					Middle Africa					9
—	—	—	—	Cameroon Chad Congo Equatorial Guinea Zaire	Angola São Tome and Principe	—	Gabon	—	Central African Republic	
					Northern Africa					6
—	—	—	Egypt Tunisia	Libyan Arab Jamahiriya	Morocco	Algeria	Sudan	—	—	
					Southern Africa					5
—	—	—	—	Namibia	Botswana South Africa Swaziland	—	Lesotho	—	—	
					Western Africa					16
Cape Verde	—	—	—	Côte d'Ivoire Mali Niger Nigeria	Benin Gambia Guinea Mauritania Senegal Sierra Leone Togo	—	Burkina Faso Guinea-Bissau	—	Ghana Liberia	
					Total					
1	1	0	2	14	24	1	6	1	3	53
					Asia					
					Eastern Asia					5
—	—	Republic of Korea	—	China Democratic People's Republic of Korea	Japan Mongolia	—	—	—	—	
					South-eastern Asia					10
—	—	Indonesia	—	Brunei Darussalam Malaysia Myanmar	Philippines Singapore Thailand Viet Nam	—	Cambodia Lao People's Democratic Republic	—	—	
					Southern Asia					9
—	—	Pakistan	—	Bhutan India Maldives	Bangladesh Iran (Islamic Republic of) Nepal Sri Lanka	—	Afghanistan	—	—	
					Western Asia					5
—	—	Turkey	—	Iraq Oman Qatar Saudi Arabia	Bahrain Jordan Kuwait United Arab Emirates	Cyprus	Israel Lebanon Syrian Arab Republic Yemen	—	—	
					Total					
0	0	4	0	12	14	1	7	0	0	38
					Europe					
					Eastern Europe					6
—	—	—	—	Romania	Bulgaria Czech Republic[b] Slovakia[b]	Hungary	—	—	Poland	

TABLE A.14 *(continued)*

Rates too low			*Rates satisfactory*				*Rates too high*			*Total number of countries*
No direct intervention (1)	*Intervention to maintain* (2)	*Intervention to raise* (3)	*Intervention to raise* (4)	*Intervention to maintain* (5)	*No direct intervention* (6)	*Intervention to lower* (7)	*Intervention to lower* (8)	*Intervention to maintain* (9)	*No direct intervention* (10)	(11)
					Northern Europe					10
—	—	—	—	Denmark Estonia Finland Iceland Latvia Lithuania Sweden	Norway United Kingdom	—	Ireland	—	—	
					Southern Europe					14
—	—	—	—	Holy See San Marino	Albania Andorra Italy Malta Portugal	Greece Spain	Bosnia and Herzegovina Croatia Slovenia The former Yugoslav Republic of Macedonia Yugoslavia[c]	—	—	
					Western Europe					9
—	—	—	—	Austria France Monaco	Belgium Germany Liechtenstein Luxembourg Netherlands Switzerland	—	—	—	—	
					Total					
0	0	0	0	13	16	3	6	0	1	39
					Latin America					
					Caribbean					13
—	—	—	—	Cuba Saint Kitts and Nevis Saint Lucia Saint Vincent and the Grenadines	Antigua and Barbuda Bahamas Barbados	—	Grenada Haiti Jamaica Trinidad and Tobago	Dominica	Dominican Republic	
					Central America					8
—	—	—	—	—	Costa Rica El Salvador Honduras Nicaragua Panama	Mexico	Belize	—	Guatemala	
					South America					12
—	—	—	—	Venezuela	Bolivia Chile Colombia Ecuador	Paraguay	Argentina Suriname Uruguay	—	Brazil Guyana Peru	
					Total					
0	0	0	0	5	12	2	8	1	5	33
					Northern America					2
—	—	—	—	—	Canada United States of America	—	—	—	—	
					Total					
0	0	0	0	0	2	0	0	0	0	2
					Oceania					
					Australia–New Zealand					2
—	—	—	—	—	Australia	—	—	—	New Zealand	

TABLE A.14 *(continued)*

Rates too low			*Rates satisfactory*				*Rates too high*			*Total number of countries*
No direct intervention (1)	*Intervention to maintain (2)*	*Intervention to raise (3)*	*Intervention to raise (4)*	*Intervention to maintain (5)*	*No direct intervention (6)*	*Intervention to lower (7)*	*Intervention to lower (8)*	*Intervention to maintain (9)*	*No direct intervention (10)*	*(11)*
					Melanesia					4
—	—	—	—	Fiji Papua New Guinea Solomon Islands	Vanuatu	—	—	—	—	
					Micronesia					4
—	—	—	—	Kiribati Nauru	Marshall Islands	—	Micronesia (Federated States of)			
					Polynesia					3
—	—	—	—	Samoa Tonga Tuvalu	—	—	—	—	—	
					Total					
0	0	0	0	8	3	0	1	0	1	13
				Union of Soviet Socialist Republics (former)[d]						12
—	—	—	—	Armenia Azerbaijan Georgia Kazakhstan Kyrgyzstan Republic of Moldova Russian Federation Tajikistan Turkmenistan Uzbekistan	—	Belarus	Ukraine	—	—	
					Total					
0	0	0	0	10	0	1	1	0	0	12

Source: The Population Policy Data Bank maintained by the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat.

[a]Including the least developed countries.

[b]The former State of Czechoslovakia was dissolved on 31 December 1992 and became the independent States of the Czech Republic and Slovakia on 1 January 1993.

[c]Unless otherwise indicated, data for Yugoslavia shown in this publication for the period beginning 27 April 1992 refer to the Federal Republic of Yugoslavia in terms of its boundaries as they exist from that date. Data for the period prior to 27 April 1992 refer to the former Socialist Federal Republic of Yugoslavia in terms of its boundaries as they existed prior to that date.

[d]Not including Estonia, Latvia and Lithuania, which are included in Northern Europe.

REFERENCES

Abella, Manolo I. (1991). Manpower movements in the Asian region. Paper presented at the Second Japan–ASEAN Forum on International Labour Migration in East-Asia, Tokyo, 26-27 September. Organized by the United Nations University and the International Labour Organization.

Anderson, Barbara A., and Brian D. Silver (1989). Demographic sources of the changing ethnic composition of the Soviet Union. *Population and Development Review* (New York), vol. 15, No. 4 (December), pp. 609-656.

Australia, Department of Immigration, Local Government and Ethnic Affairs (1989). *Consolidated Statistics, 1988*, No. 15. Canberra.

Australia, Bureau of Immigration Research (1990). *Settler Arrivals, 1988-1989*. Statistical Report No. 2. Canberra.

Bedford, Richard D. (1992). International migration in the South Pacific region. In *International Migration Systems: A Global Approach*, Mary M. Kritz, Lin Lean Lim and Hania Zlotnik, eds. Oxford: Clarendon Press.

Belgium, Institut national de statistiques (1992). *Recensement de la population, 1 mars 1991*, tome 1. Brussels.

_____ (various years). *Annuaire statistique de la Belgique*. Brussels.

Brubaker, W. Rogers (1992). Citizenship struggles in Soviet successor states. *International Migration Review* (Staten Island, New York), vol. 26, No. 2 (Summer), pp. 269-291.

Canada, Employment and Immigration Canada, *Immigration Statistics*, issues for 1963-1989. Ottawa.

Far Eastern Economic Review (1990). Saudi to ban Thai workers after slaying of diplomats. *The Far Eastern Economic Review* (Hong Kong), vol. 148, No. 7 (15 February).

France, Institut national de la statistique et des études économiques (1991). *Recensement de la population, 1990: résultats du sondage au vingtième*. Paris.

Germany, Federal Republic of, Statistisches Bundesamt (various years). *Statistisches Jahrbuch*. Wiesbaden.

Heitman, Sidney (1991). Soviet emigration in 1990: a new "fourth wave". In *Soviet-Jewish Emigration and Resettlement in the 1990s*, Tanya Basok and Robert J. Brym, eds. Toronto: York Lanes Press.

International Labour Office (1990). Ministerial meeting on migrant workers affected by the Gulf crisis. Informal summary record. Geneva, 19 November.

International Labour Organization, Regional Office for Asia and the Pacific (1989, 1991). *International Labour Migration from Asian Labour-sending Countries: Statistical Report, 1989* and *1991*. Asian Regional Programme of International Labour Migration, UNDP-ILO Project RAS/88/029. Bangkok.

Israel, Central Bureau of Statistics (1991). *Immigration to Israel, 1990.* Special series, No. 900. Jerusalem.

Japan, Ministry of Health and Welfare (1991). *Latest Demographic Statistics, 1990-1991*. Tokyo: Institute of Population Problems.

Japan, Ministry of Justice (1992). *Annual Report of Statistics on Legal Migrants, 1992.* Tokyo.

Japan, Ministry of Labour (1992). *Kaigai Rodo Hakusho* (White paper on foreign workers). Tokyo.

Lim, Lin Lean (1991). International labour migration in Asia: patterns, implications and policies. Paper presented at the Informal Expert Group Meeting on International Migration, organized by the United Nations Population Fund and the United Nations Economic Commission for Europe. Geneva, 16-19 July.

Misiunas, R. J., and R. Taagepera (1983). *The Baltic States: Years of Dependence, 1940-1980.* Berkeley, California: University of California Press.

Netherlands, Centraal Bureau voor de Statistiek (1991). *Maandstatistiek van de Bevolking.* The Hague.

New Zealand, Department of Statistics (1985, 1986). *External Migration Statistics, 1984-85, 1985-86.* Wellington.

_____ (various years). *Population and Migration Statistics,* part B, *Migration.* Wellington.

Organisation for Economic Co-operation and Development (1990). *SOPEMI: Trends in International Migration, 1989.* Paris.

_____ (1991). *SOPEMI: Trends in International Migration, 1990.* Paris.

_____ (1992). *SOPEMI: Trends in International Migration: Continuous Reporting System on Migration.* Paris.

Park, Young-bum (1991). Foreign labour in Korea: issues and policy options. Paper presented at the Second Japan–ASEAN Forum on International Labour Migration in East-Asia, Tokyo, 26-27 September. Organized by the United Nations University and the International Labour Organization.

Sabatello, Eitan F. (1992). Migrants from the USSR to Israel in the 1990s: socio-demographic background and first-year occupational trends. Paper presented at the Conference on Mass Migration, Vienna, Austria, 5-7 March, organized by the International Institute for Applied Systems Analysis.

Shah, Nasra M. (1993). Migration between Asian countries and its likely future. Paper presented at the United Nations Expert Group Meeting on Population Distribution and Migration, Santa Cruz, Bolivia, 18-22 January.

Shamshur, Oleg V. (1992). Ukraine in the context of new European migrations. *International Migration Review* (Staten Island, New York), vol. 26, No. 2 (Summer), pp. 258-268.

Sweden, Statistika Centralbyran (1991). *Statistik Arsbok.* Stockholm.

_____ (various years). *Statistical Abstract of Sweden.* Stockholm.

Switzerland, Bundesamt für Statistik (various years). *Statischer Harnbuch der Schweiz.* Berne.

Tribalat, Michèle (1992). Chronique de l'immigration. *Population* (Paris), vol. 47, No. 1 (janvier-février), pp. 153-190.

United Kingdom, Central Statistical Office (various years). *Annual Abstract of Statistics.* London.

United Nations (1980). *Recommendations on Statistics on International Migration.* Statistical Papers, Series M, No. 58. Sales No. E.79.XVII.8.

_____ (1985). *World Population Trends, Population and Development Interrelations and Population Policies: 1983 Monitoring Report,* vol. I, *Population Trends.* Population Studies, No. 93. Sales No. E.84.XIII.10.

_____ (1990). *World Population Monitoring, 1989: Special Report: The Population Situation in the Least Developed Countries.* Population Studies, No. 113. Sales No. E.89.XIII.2.

_____ (1992). *World Population Monitoring, 1991: With Special Emphasis on Age Structure.* Population Studies, No. 26. Sales No. E.92.XIII.2.

_____, Economic and Social Commission for Asia and the Pacific (n.d.). *Report of the Fourth Asian and Pacific Population Conference, Bali, Indonesia, 19-27 August 1992.* Asian Population Studies Series, No. 115. Bangkok.

United Nations Conference on Trade and Development (1991). *UNCTAD Commodity Yearbook, 1991.* Sales No. B.91.II.D.9.

United Nations, Office of the United Nations Disaster Relief Co-ordinator (1990). *Iraq-Kuwait Crisis: The Plight of Returnees.* Geneva.

United States of America, Department of Justice (1981-1990). *Statistical Yearbook of the Immigration and Naturalization Service.* Various issues, 1981-1990. Washington, D.C.

Vichnevski, Anatoli, and Jeanne Zayontchkovkaia (1991). L'emigration de l'ex-Union Soviétique: premices et inconnues. *Revue européenne des migrations internationales* (Poitiers, France), vol. 7, No. 3, pp. 5-29.

Zlotnik, Hania (1991). South-to-North migration since 1960: the view from the North. *Population Bulletin of the United Nations* (New York), No. 31/32, pp. 17-37. Sales No. E.91.XIII.18.

_____ (1992a). Asian migration to Latin America. In *The Peopling of the Americas, Veracruz, 1992: Proceedings,* vol. 2. Liège: International Union for the Scientific Study of Population.

_____ (1992b). Empirical identification of international migration systems. In *International Migration Systems: A Global Approach,* Mary M. Kritz, Lin Lean Lim and Hania Zlotnik, eds. Oxford: Clarendon Press.

_____ (1994). Comparing migration to Japan, the European Community and the United States. *Population and Environment: A Journal of Interdisciplinary Studies* (New York), vol. 15, No. 3 (January), pp. 173-187.

Part Three

POPULATION AND ENVIRONMENT

VII. LAND, FORESTS AND WATER AND THE ROLE OF POPULATION

775. Although interest in the consequences of population growth for natural resources depletion and environmental degradation is long-standing, widespread and growing public awareness and concern about the linkages between population factors and the environment are relatively recent. Today, concern about the environment has risen to the top of the international agenda and has brought in its wake a renewed attention to population issues.

776. A major initial impetus to this concern was given by the publication in 1987 of the Report of the World Commission on Environment and Development (United Nations, 1987), whose, perhaps most important, message was the introduction of the concept of sustainable development. The report observes that ". . . rapidly growing populations can increase the pressure on resources and slow any rise in living standards; thus sustainable development can only be pursued if population size and growth are in harmony with the changing productive potential of the ecosystem" (United Nations, 1987, p. 9). Two years later, in November 1989, the International Forum on Population in the Twenty-First Century adopted the Amsterdam Declaration on a Better Life for Future Generations, which acknowledges "that population, resources and environment are inextricably linked" and which stresses the commitment "to bringing about a sustainable relationship between human numbers, resources and development" (UNFPA, 1990, p. 1).

777. That same year the General Assembly adopted resolution 44/228, which led to the United Nations Conference on Environment and Development, or the Earth Summit. Although that resolution was virtually silent on population matters, the Conference included a chapter on "demographic dynamics and sustainability" in Agenda 21 (United Nations, 1993a), which was adopted at the Conference.

778. In 1994, the International Conference on Population and Development was held at Cairo under the auspices of the United Nations. By including development in the title of the Conference, the international community gave further evidence that it views population and development as inextricably linked. Its overall theme was population, sustained economic growth and sustainable development.

779. Reasons for reducing rates of population growth, advocated mostly on the ground that it impedes socio-economic development, have received an added dimension in the form of the environment: "There is a premium on slowing population growth with all due dispatch as a pre-eminent measure to safeguard the global environment" (UNFPA, 1991, p. 4). At the same time, however, it is recognized that population factors are among the many forces that affect the environmental resource base upon which sustainable development ultimately depends. For example, Agenda 21 observes that "the growth of world population and production combined with unsustainable consumption patterns places increasingly severe stress on the life-supporting capacities of our planet" (United Nations, 1993a, p. 40). Yet, a proper assessment of the relative role of population size, density, growth and patterns of spatial distribution in environmental degradation faces serious conceptual and empirical constraints.

780. This chapter is largely focused on the situation in the developing countries. This choice is not made because there are no environmental problems in the developed countries but because the link with population is exceedingly weak among those countries. Much, if not all, of the environmental stress in the developed countries is derived from production and consumption patterns and technology. The often advanced argument that the developed countries, with only 23 per cent of the world population, consume most of the world's resources and therefore an additional person places considerably more stress on the natural resource base than an additional birth in a developing country needs to be balanced by the fact that developed countries also produce more than 83 per cent of world output. Developed market economies consumed 57 per cent of world demand for oil in 1991. At the same time, one barrel of oil produced almost $1,100 of output in those countries. Developing countries, on the other hand, consumed only 19 per cent of world oil demand in 1991. However, one barrel of oil produced $510 of output in those countries, or to put it the other way around, it takes almost two barrels of oil to produce $1,000 worth of output in the developing countries against less than one barrel to achieve the same in the developed countries (Oldeman, van Engelen and Pulles, 1990). Those figures point to the glaring disparity and large gap in incomes and technologies between North and South rather than to the importance of differentials in population growth for environmental degradation.

781. In any event, population growth rates are very low and in some instances negative in the developed countries, leaving little room for major change. Furthermore, the Governments of 31 developed countries considered their population growth rates to be satisfactory; the Governments of seven developed countries considered them too low and six are undertaking interventions to raise population growth rates; the Government of only one developed country reported interventions to lower the population growth rate (United Nations, 1992).

A. LAND

782. Results of the recent Global Assessment of Soil Degradation (GLASOD), sponsored by the United Nations Environment Programme (UNEP), show that 1.2 billion hectares—almost 11 per cent of the vegetated surface of the earth—have suffered from moderate to extreme soil degradation over the past 45 years, mainly because of human activity (Oldeman, van Engelen and Pulles, 1990). From 7 million to 8 million hectares of rain-fed croplands and 1.5 million hectares of irrigated land are currently lost every year (Tolba, 1992), while another 20 million hectares lose virtually all their agricultural productivity (Chisholm and Dumsday, 1987). For instance, in the eastern hills of Nepal, 38 per cent of the land area consists of fields that have had to be abandoned because the topsoil has washed away (Tolba, 1992). A study of an irrigation district in eastern Uttar

Pradesh in India found that 87 per cent of the farmers were concerned with soil degradation, which had forced 29 per cent of cropland out of production (Joshi and Jha, 1990).

783. It has been estimated that at the global level, land degradation causes an annual loss of 12 million tons of grain output, which is roughly equivalent to half of the average annual increase in production of cereals (Brown and others, 1992; Myers, 1992). Assessments of the economic impact of land degradation at the national level estimate the losses at about 0.5-1.5 per cent of gross national product annually for such countries as Costa Rica, Lesotho, Malawi, Mali and Mexico (World Bank, 1992; Repetto and Magrath, 1989; and Bojo, 1991). These relatively modest macrolevel impacts translate into massive erosion of the means of sustenance of the poor: on the one hand, nearly three fourths of the poor in the developing countries live in ecologically vulnerable areas that have low agricultural potential and are particularly prone to land degradation (United Nations, 1991a); on the other hand, poor households typically lack both the resources to counteract the decrease in natural soil fertility (United Nations, 1991b) and the incentives to invest in soil conservation, as poverty is highly correlated with landlessness (World Bank, 1990).

784. As rural livelihood systems in the developing countries are predominantly agricultural, there are two major immediate factors of human-induced environmental degradation. On the one hand, there are the traditional agricultural activities that are pushed to unsustainable intensities, such as expansion of cropland into forests, or onto steep slopes or into dry areas. On the other hand, adjustments are made in those traditional activities which are harmful for the environment, such as the shortening of fallow periods without measures to restore soil fertility and counteract its increasing exposure to erosion.

785. The magnitude of environmental change and the relative role of population pressure in a particular country or area during a given time period depend upon the complex interactions of: (*a*) agroclimatic conditions (e.g., availability and accessibility of potentially arable lands, its topography and rainfall) and infrastructure development projects that affect those conditions (roads, irrigation schemes); (*b*) economic and institutional factors regulating access to farm land (land tenure rights and inheritance rules, concentration of landholdings) and common property resources (aquifers, grazing lands, forests) as well as land-use patterns and agricultural practices (through, e.g., access to markets and credits, agricultural research and extension services; direct and indirect subsidies and taxes, exchange rates for agricultural exports and imported input items); and (*c*) availability of off-farm rural employment and employment opportunities in cities. Government policies affect all those factors. Thus, the interaction of demographic and socio-economic trends in the depletion of the natural resource base and the degradation of the environment in the developing countries is of particular concern.

786. In the past, in many societies, slow population growth and gradual increases in population densities were probably some of the major factors of technological progress in agriculture associated with socially acceptable environmental shifts. Today, the claims to basic resources (arable land, forests, water), fuelled by the rapid population growth of recent decades as well as by the rising aspirations of people, have often outstripped the regenerative capacities of those renewable natural resources. The increase in cultivated land, the redistribution of prime arable land to non-farm use in the process of urbanization, the clearing of new land by migrants, the fragmentation of landholdings to a size that can no longer support a family and the intensification of agricultural production in ways that are associated with the deterioration of the quality of the land and land conflicts are found to be linked, in an increasing number of cases, with population pressure.

787. Over 30 years ago, Davis (1963) developed his theory of a multiphasic response to increased population density in rural areas, postulating that families respond to increasing pressures upon their levels of living by altering their demographic behaviour: postponing marriage; reducing fertility within marriage; and/or out-migration. Those demographic responses may occur simultaneously. Boserup (1965, 1981) concentrated on alternative technological responses, postulating that as population grows in relation to land, there is a tendency to use land more intensively, by reducing fallow time and increasing the labour per unit of land. Bilsborrow and Geores (Bilsborrow, 1987, 1992; Bilsborrow and Geores, 1990, 1993) note that through most of human history, the major means of increasing agricultural production was land extensification, or the process whereby agricultural production grows through an extension of the land area, usually involving migration and appropriation of new lands (see also Harrison, 1992). Because the responses of land use to growing population pressure are multiphasic, the extent to which any one of the three responses occurs—fertility decline, land intensification or land extensification—depends upon the other two, and hence, upon all economic and institutional factors influencing those other responses.

788. Although in recent decades most of the increases in agricultural production in the developing countries and all of the increases in the developed countries came from increases in yield rather than increases in cropland, land extensification remains a widespread practice. During the period from 1977-1979 to 1987-1989, in spite of intense downward pressure on cropland from increasing non-agricultural uses and massive losses of arable land due to erosion, cropland areas grew by 0.8 per cent in Asia, 4.4 per cent in Africa and 10.9 per cent in South America (World Resources Institute, UNEP and UNDP, 1992). As the sites with good land tend to be cultivated first, land extensification increasingly requires use of marginal lands, i.e., in lowland rain forests, on steep slopes or semi-arid lands. Despite the relative abundance of potentially arable land in Africa and Latin America, and in parts of Southern Asia, much of it has very poor soil, or is situated in areas of extremely adverse hydrological conditions or presents exceptional health risks.

789. Despite the land extensification, inequality of land distribution remains a pervasive problem. Landlessness is widespread, with the percentages of agricultural landless households estimated to be 17 in Latin America, 11 in the Middle East, 15 in Southern Asia and 6.5 in Africa.[1] Even more important is the proportion of smallholder households, whose landholdings are too small to provide a sustainable livelihood, with the percentage being about 60 in the developing countries as a group (Sinha, 1984).

790. Much of the latter problem is the result of rapid population growth under the norms of partible inheritance of land that are typical for most developing countries, thereby contributing to fragmentation of agricultural holdings. Population-driven land fragmentation characterizes many developing countries and has been documented for India and Bangladesh (Harrison, 1992), Malawi (Lele and Stone, 1989), Burundi and Rwanda (United Nations, 1991a,

1991b), south-eastern Nigeria (Okafor, 1987), Haiti (Baril, Gregory and Jacques, 1986), Honduras (Stonich, 1989), Guatemala (Bilsborrow and DeLargy, 1991; Bilsborrow and Okoth-Ogendo, 1992), and Nepal (Ives and Messerli, 1989). To the extent that land fragmentation is not matched by the introduction of intensive and environmentally sustainable agricultural techniques (e.g., intercropping), the farmers with exceedingly small plots are forced to "mine" their land (by shortening fallow, cutting remaining trees, etc.) or to migrate and engage in ecologically destructive practices of land extensification on marginal lands where soil and climatic conditions are poorly suited for annual cropping.

791. Other response systems are also breaking down. For example, in parts of sub-Saharan Africa, agro-ecological conditions and low population densities used to assure the sustainability of shifting cultivation and transhumance within the framework of customary rules of community landownership and allocation of use rights to members of the community. In recent decades the most central element of this agricultural system—the ability to shift around on the land within the confines of the community—has been undermined by population pressure, creating land shortages and conflicts (Lele and Stone, 1989; Cleaver and Schreiber, 1991; and United Nations Secretariat, 1991).

792. In spite of the unprecedented growth in world population over the past few decades and the increasing evidence of considerable land degradation, world cereal production doubled between 1961 and 1989 while population only grew by two thirds. As a result, cereal production per person has increased from 288 kilograms (kg) in 1961 to 358 in 1989. In the developing countries, there was a substantial rise as well: from 189 to 249 kg per person. Nutritional standards have improved considerably. The average daily intake in the developing countries rose from 1,939 calories in 1961-1963 to 3,434 in 1986-1988, and protein consumption increased by 20 per cent over the same period (Harrison, 1992). Enough food is available so that countries that do not produce all the food they need can import it if they can afford to do so. Yet, many poor countries and hundreds of millions of poor people do not share in this abundance.

793. The growth in food production and imports of the developing countries has not been sufficient to contain hunger. The number of hungry people increased in all areas, particularly in Africa, where it grew from 92 million in 1970 to 140 million in the mid-1980s. Latin America witnessed a slight increase of 4 million hungry people—from 51 million to 55 million. In Asia (excluding Western Asia), the number of the hungry was estimated at 291 million in the mid-1980s, 10 million higher than in 1970 and accounting for close to 60 per cent of all hungry people in the less developed regions, followed by Africa with almost 30 per cent. There does not appear to have been any let-up in the growth of the number of hungry people in the world from the mid-1980s to the present.

794. Growing hunger and malnutrition are not caused by scarcity of food but by lack of access to food for the people that need it most, i.e., the poverty-stricken. Over 1 billion people live in absolute poverty. They lack the entitlements and therefore cannot produce or purchase the food and basic goods they need. Over 700 million people are chronically hungry. Fifty per cent of the hungry people in the world live in only five countries, four of which are found in Asia where the green revolution has taken place and even in some countries where national surpluses have been recorded.

795. Population growth is fastest among the poorest countries. Since 1970, when population growth rate of the least developed countries[2] (as a group) outpaced the average for the less developed regions, the gap has been widening and reached almost one percentage point in the early 1990s (United Nations, 1993b). Furthermore, of the poorest fifth of the households in the developing countries, between 55 and 80 per cent have eight or more members, whereas among all households at the national level the proportion is only from 15 to 30 per cent (UNFPA, n.d.).

796. In addition to the rate of population growth being fastest in the poorest countries, their inhabitants are also usually dependent upon their environmental resource base for their immediate survival. Much of the land degradation described above can be traced to poverty. Poverty perpetuates a vicious circle of hunger, malnutrition, environmental degradation and a motivation for large families.

797. Although reducing rates of population growth in the poor countries may be a desirable objective, direct measures to alleviate poverty itself appear considerably more urgent and immediate in the battle against hunger, malnutrition and land degradation. In any event, irrespective of the motive for financing population programmes, the content of such programmes must be welfare-enhancing for the poor, if they are to be effective in reducing fertility (Birdsall, 1992).

B. Forests

798. About 25 per cent of the world's land area is covered with three types of forests: tropical moist and dry forests; temperate forests; and degraded forest land. The main environmental concern currently is with tropical moist forests, which are disappearing at a rate that threatens the economic and ecological functions they provide. Those forests, which cover more than 1.5 billion hectares, are the richest ecosystems, in biomass and biodiversity, on land. About two thirds are located in Latin America, with the remainder split between Africa and Asia. Tropical dry forests also total some 1.5 billion hectares, with three fourths located in Africa. Temperate forests total about 1.6 billion hectares, 75 per cent of which is located in the developed countries (World Bank, 1992).

799. In the early 1980s, it was estimated that tropical deforestation was proceeding at a rate of 11.4 million hectares per annum. Recent estimates have pushed this rate up to from 17 million to 20 million hectares per annum in the late 1980s. The most recent statistics suggest that the overall rate of tropical deforestation in the 1980s was 0.9 per cent per annum (World Bank, 1992).

800. Much is made of the role of population in deforestation, in particular of moist tropical forests. Demand for land by increasing numbers of landless or small-scale farmers is seen as the driving force in the destruction of tropical moist forests (UNFPA, 1991). It is estimated that about 60 per cent of tropical moist forests are cleared each year due to new agricultural settlements (World Bank, 1991). Although this estimate may substantiate the claim of population pressure on tropical moist forests, in reality the situation is considerably more complex.

801. In Africa and South-eastern Asia, the most important cause of tropical deforestation is commercial logging. Because concessions for logging are characteristically for short periods, say, 20 years as in Indonesia, loggers cut trees as rapidly as possible with no incentive to replant. In Africa, 20 per cent of its tropical rain forest has been logged over. In South-eastern Asia, 30 per cent has been logged. Commercial logging is largely carried out to satisfy demand for valuable tropical hardwoods in the developed countries,

thereby earning scarce foreign exchange for the exporting developing countries. It is clear that the link with population growth is highly tenuous, but strong, given the patterns of consumption in the importing countries and the patterns of production in the exporting countries.

802. In parts of Latin America, cattle-ranching is the most important cause of tropical deforestation. It has been estimated that in Latin America 27 per cent of total deforestation is the result of ranching (Harrison, 1992). Livestock-rearing has an extremely damaging effect on the environment because it is based on the removal of forest coverage by fire. While cattle-ranching is undertaken to meet the demand for meat both domestically and abroad, it is only economically feasible under conditions of heavy government subsidies. Again, the link with population growth is highly dubious but very strong with misguided government policies and consumption patterns.

803. Besides the direct damage done to forests, logging and ranching are also instrumental in making it possible for the landless, the unemployed and the small-scale farmers to settle in the tropical moist forests. Tropical rain forests are exceedingly difficult to penetrate under normal conditions. Access roads for logging and ranching operations have opened up large segments of the tropical rain forests that were previously inaccessible to individuals for staking out a plot of land.

804. Resettlement schemes where cleared forest land is distributed to people, or policies that ensure land title to a settler once he has cleared a tract of forest, are also major contributors to tropical deforestation. This is done in a number of countries, including Brazil and Indonesia. Although land is given to the landless and unemployed, after a few harvests the soil is depleted and the settlers move on. Much of this resettlement is a substitution for the redistribution of landownership elsewhere. In Brazil, 50 per cent of the farmers own 3 per cent of the land, while 43 per cent of the farm land is owned by 1 per cent of the farmers. Similarly, in Java, Indonesia, 1 per cent of the farmers own 35 per cent of the agricultural land. About 50 per cent of the smallholders have less than half a hectare of land each, and half of all rural households own no land at all (United Nations, 1989). Many of the forces that drive the poor into the forests have more to do with institutional realities and government policies than with their growth in numbers. Reducing rates of population growth among the settlers without addressing the underlying causes is likely to do little to stop the rate of deforestation.[3]

805. Tree-felling for firewood accounts for the largest share of wood use in the developing countries. In moist tropical forests, cutting down trees for firewood is not a major cause of deforestation, but it is in tropical dry forests and non-forest wooded areas around dense human settlements in Africa and Southern Asia. The fuelwood crisis and deforestation, although related, are different issues. The people facing fuelwood shortages are mostly the rural poor living in low rainfall, poor soil, scrub and semi-desert areas of Africa, Asia and Latin America (see box 30). About 1.3 million people live in areas where fuelwood is consumed faster than trees can regrow. Of those, 70 million people are in Northern Africa and Western Asia; 145 million in the dry parts of Latin America; 130 million in sub-Saharan Africa, mainly in savannah areas in the west, centre and south-east of the continent; and 710 million in the countryside and small towns of Asia, mainly in the great plains of the Indus and Ganges rivers and in South-eastern Asia (United Nations, 1989).

BOX 30. FUELWOOD AND POPULATION: THE CASE OF LESOTHO

In Lesotho, over 60 per cent of residential energy consumption is derived from fuelwood and shrubs. Marginal rural households cannot afford electricity or coal, but may consume some paraffin. Access to cow-dung and crop residues is limited. This leaves fuelwood and shrubs to provide the bulk of the energy demand. Annual energy demand per capita is about 18,000 megajoules and it is assumed that 95 per cent of this demand has to be met using fuelwood and shrubs. Planted trees and shrubs yield about 16,000 megajoules per ton, which implies a marginal consumption of almost 1.1 tons. The current annual growth in population in Lesotho is about 44,000 persons per annum, thereby making 48,000 tons of fuelwood per annum the additional requirement.

On the supply side, it appears that 1 hectare of well-managed woodlot can produce approximately 4.5 tons of fuelwood. This would require an area of about 11,000 hectares per annum to be planted, only to keep up with the annual additional demand. This can be compared with the accumulated achievement of the only major afforestation programme in Lesotho: 6,000 hectares of woodlots planted since 1973.

Of course, these calculations are highly simplified and do not take into account technical development, such as fuel-efficient stoves and substitution of fuels. Still, even when taking such factors into consideration, the Lesotho Energy Master Plan projects a severe and increasing shortfall of traditional fuels, if no public action is taken. Therefore, a massive national woodlot programme is recommended with 7,500 hectares to be planted each year. However, indications are that these targets will not be met, resulting in further denuding of the landscape of Lesotho.

Source: Jan Bojo, *The Economics of Land Degradation: Theory and Applications for Lesotho* (Stockholm, Sweden, School of Economics, 1991).

806. Although rapid population growth contributes considerably to the increase in demand for fuelwood, fuelwood consumption is in large part a function of income. Consumption of fuelwood declines with household income and city size (Barnes and Liu, 1990), implying that continued income growth and urbanization will reduce this source of pressure on forests (Birdsall, 1992). In many countries, however, the situation may worsen in the short to medium term as urban-dwellers are increasingly relying upon charcoal. Charcoal has a higher energy density than fuelwood and thus is cheaper to transport but it requires twice as much wood to produce (Andreae, 1990).

807. Scarcity of fuelwood has a major impact on the well-being of populations that are dependent upon it as their source of energy. Acute scarcity of fuelwood often leads to reducing the number of hot meals per day. This entails substantially lower levels of nutrition in families, as many staple foods cannot be digested without prolonged cooking (FAO, 1992). In the Sahel, where the fuelwood crisis is particularly acute, regular relocation every 10-15 years to areas still containing fuelwood is the only solution available to some village populations (Bilsborrow and Geores, 1990). Substitution of animal dung and crop residues for fuelwood has become more common in many regions—providing, for instance, 58 per cent of energy needs in Ethiopia (Barnard and Kristoferson, 1985) and 78 per cent in the rural areas of

Bangladesh (World Bank, 1982)—resulting in the decrease of soil nutrient replenishment (Brown and Young, 1990). According to a World Bank estimate, a decade ago 20 million tons of potential food output were annually lost in Asia and Africa because of diversion of cattle dung from fertilizer to fuel use; as this substitution intensifies, it may decrease grain production in Nepal alone by one fourth in the year 2000 (Kirchner and others, 1985). Collecting and transporting fuelwood takes a considerable amount of women's and children's time: from 6 hours per week in Kenya to 15 hours in Burkina Faso and 40 hours in the United Republic of Tanzania (Cruz and others, 1992). As fuelwood becomes scarce, time requirements increase (Kumar and Hotchkiss, 1988), with the extra time being one of several reasons that children are taken out of school to help their mothers (Rodda, 1991), as well as one reason that women retain high fertility preferences (Palmer, 1991).

C. WATER

808. Out of a global total water volume of some 1.4 billion cubic kilometres, more than 97 per cent is ocean water, unsuited for human use. Of the 3 per cent that is fresh, an estimated 77.2 per cent is frozen in ice-caps and glaciers. The bulk of the remaining supplies of freshwater, 22.4 per cent is groundwater and soil moisture. Only a very small proportion of it is available as surface freshwater. Some 0.35 per cent of that supply is contained in lakes and swamps and less than 0.01 in rivers and streams.

809. Freshwater is a renewable resource by virtue of the hydrological cycle between sea, air and land. It is also a finite resource, as approximately the same volume is made available each year. Currently, there is an annual renewable supply of 83,000 cubic kilometres, which is equivalent to several times the amount needed to sustain a moderate level of living of the current population. Because of variations in climate and the vagaries of weather, however, the hydrological cycle does not distribute water equitably over the continents. Water is not at all plentiful everywhere and is not always available when and where it is most needed.

810. Currently, global annual water withdrawals equal about 10 per cent of the total renewable supply and about 25 per cent of the stable supply, i.e., that which is normally available throughout the year. The bulk of world water use is claimed by irrigated agriculture, which accounts for about 70 per cent of total withdrawals. Increasing use of water is expected to continue well into the twenty-first century, led by still increasing irrigation in many parts of the world. Industry is the second major water user, accounting for about 25 per cent of water use worldwide. By far the largest single industrial use of water is in energy production in plants powered by fossil fuels and nuclear energy. In the developing countries, industry accounts for less than 10 per cent of total withdrawals of water. With increasing industrialization in the developing countries, water demands are poised for acceleration, particularly if water-intensive technologies are adopted. Domestic demand accounts for less than one tenth of water withdrawals in many countries and only about 7 per cent of total withdrawals worldwide. The largest increase in demand for domestic water will occur in the developing countries, where freshwater supplies are not yet generally available in sufficient amounts and quality.

811. Water scarcity is basically the result of two phenomena, namely: (*a*) limits imposed by the availability of freshwater resources; and (*b*) limits generated by the development of land and water resources. Four different types of water scarcity may be distinguished. Two of them are natural: aridity and drought. The other two are induced by man: landscape desiccation, which reduces accessibility of water; and water stress, which results from high levels of competing demands for water. The phenomenon of water scarcity is increasing rapidly with a growing world population and urbanization and the process of economic growth.

812. Today, with a world population of 5.3 billion, water is already a scarce resource in many parts of the world. Some 80 countries with 40 per cent of the world population suffer from serious water shortages (United Nations, 1988). Given existing climatic conditions and current population projections, it is estimated that the per capita global water-supply will decline by 24 per cent by the end of the century. Projections made by hydrologists indicate that meeting demands by 2000 could require virtually all the usable freshwater supplies in Northern Africa and Western Asia (United Nations, 1990).

813. Rapid population growth is increasingly becoming the driving force in causing more and more countries to experience water shortages since the overall flow supply of water is more or less constant. Anywhere from 15 to 25 Northern African and sub-Saharan African countries may face serious problems with water shortages by 2025. Most of those African countries facing water shortages, in the sense of inadequate average per capita water availability, are also countries whose agricultural sectors need a higher than average input of water and fertilizer for food production. In such cases, therefore, household and industrial demands for water will compete strongly with the agricultural sector for the limited quantities of water available, thus making overall development aspirations more elusive (Falkenmark, 1988). Water shortages will mean not only competition at the national or local level but also possible conflicts at the international level (see box 31).

814. Besides the fact that water is in short supply in a number of countries, much of what is available is not safe to drink. In 1990, despite the dramatic improvements achieved in the past two decades in the standards and levels of services for the supply and sanitation of drinking-water, especially in the rural areas of the developing countries, 1.2 billion people did not have access to clean water-supplies and 1.7 billion people were not served by adequate sanitary facilities (United Nations, 1990).

815. Each year an estimated 12.4 million deaths occur from diseases related to use of unsafe water. Poor environmental sanitation is a critical link in the chain of diarrhoeal diseases that affect young children in the developing countries and cause the majority of deaths in age group 0-5 years (UNICEF, 1988). Contributing factors are unsafe and insufficient water-supplies and the lack of safe means of human waste disposal. Consequent health problems created by those conditions include gastro-intestinal, viral and bacterial infections, various intestinal parasitic infestations that drain an already limited food intake and aggravate malnutrition and also skin and eye diseases. For instance, more than three fourths of diseases in the developing countries in the Economic and Social Commission for Asia and the Pacific (ESCAP) region are directly traceable to unsafe drinking water (United Nations, 1991c).

816. Most settlements in Africa and Asia have no sewerage system at all—including many cities with 1 million or more inhabitants (Hardoy and Satterthwaite, 1989). Moreover, 90 per cent of the sewage that is collected is discharged without treatment, thereby polluting the water and soil in the area (Winthrop, 1991). Refuse collection services

BOX 31. WATER AS A SOURCE OF CONFLICT

Africa is the continent where most of the river systems are international, in the sense that the river basins are shared by several countries. Of the nine international water bodies shared by six or more countries, five are in Africa. The Niger runs through 10 countries, the Nile and Zaire through nine countries and the Zambezi through eight, and Lake Chad is shared by six countries. Nearly 60 per cent of the surface area of Africa is accounted for by shared river and lake basins, and at least 80 per cent of the total surface area of 20 African countries lies within international basins. Furthermore, it is in most of those countries that populations are growing the most rapidly.

Intergovernmental commissions or planning agencies have been established for coordination and integrated development of several basins but progress in most cases has been rather slow, and it is likely that problems associated with the management of international rivers in Africa will become more complex and intense than ever before.

For example, Egypt uses already 97 per cent of its available water resources. As the upstream water needs of Ethiopia and the Sudan grow, so will the scope of conflict. Ethiopia controls the Blue Nile tributary, source of about 80 per cent of Nile water entering Egypt. Partially as a result of population growth, the Government of Ethiopia is resettling 1.5 million poor farmers from the degraded highlands into the fertile south-western part of the country. In order to supply irrigation water for the new settlements, Ethiopia plans to divert up to 39 per cent of the Blue Nile before it leaves its territory. Unless a water management scheme can be worked out with all riparian countries, this scheme may well trigger a major resource conflict.

are inadequate or non-existent in most urban residential areas of the developing countries: an estimated 30-50 per cent of solid wastes generated within urban centres is left uncollected (Tolba, 1992); what garbage is collected is usually disposed of in dump sites that pollute groundwater.

817. According to a recent assessment made by the United States Agency for International Development, improvements in water-supplies and sanitation can bring median reductions of 22 per cent in morbidity from diarrhoea, which causes about 900 million episodes of illness each year; 28 per cent in morbidity from roundworm infection, which afflicts at any one time 900 million people; and 73 per cent in morbidity from schistosomiasis, which afflicts 200 million people. It also demonstrated that environmental improvements have a greater impact on mortality than on morbidity, with median reductions of 60 per cent in deaths from diarrhoeal diseases (Esrey and others, 1990).

818. Inadequate water-supply has also a negative effect on women's allocation of time and household incomes. In many rural areas, water-fetching takes up to 15 per cent of women's time (World Bank, 1992); in one neighbourhood at Ibadan (Nigeria), almost 40 per cent of the households spend one hour or more every day fetching water and half of them spend three hours a day or more (Egunjobi, 1987). Accessible water is often contaminated, while even the costs of boiling it to make it safer for drinking are often prohibitive for rural and poor families alike, amounting to 11 per cent of the income of a family in the lowest income quartile in Bangladesh and up to 29 per cent of the income of an average family living in a squatter settlement in Peru. Still for the urban poor living in the neighbourhoods unserved by the municipal water system, there is often no practical alternative to buying drinking water from private vendors at unit prices. In 16 surveyed cities the prices were from 4 to 100 times higher than that charged by the water authority; consequently, the poor families spend on water as much as 18 per cent of their income at Onitsha (Nigeria) and 20 per cent at Port-au-Prince (Haiti) (World Bank, 1992).

819. While water quantity and quality are closely linked to population dynamics, water also affects populations through the natural hazards of droughts and floods. The occurrence of droughts has become more frequent, causing breakdowns of agricultural and pastoral systems, widespread dislocation of communities and substantial losses of human lives and livestock in many parts of the world, particularly in Africa. It is estimated that the long droughts of the 1980s seriously affected from 30 million to 35 million people in sub-Saharan Africa, of whom about 10 million were displaced and became known as "environmental refugees" (Tolba, 1992). For instance, according to a 1985 demographic survey in Mali, half of the migration into Bamako was due to drought (Thiam, 1992). In one region of the country, two thirds of the cattle and sheep and half of the goats died in 1984-1985, leaving one third of the nomadic population without any livestock. As a result of the influx of migrants, daily wages for certain occupations in the towns have fallen several times below the price of just one basic meal for a family (Davies and Thiam, 1987). Large flows of rural migrants to primary cities and secondary towns as a direct result of drought were reported in the Sudan (Bilsborrow and DeLargy, 1991). Although reliable measurements of drought-induced excess mortality in Africa are lacking, estimates based on a variety of methods range from 1 million excess deaths in the mid-1980s (Allison and Green, 1985) to half this figure for the entire period of 1974-1984 (United States of America, 1987).

820. The economic impact of floods is often very severe, particularly in the densely populated low-lying coastal and delta areas of South Asia. In 1987, the flooding affected two fifths of Bangladesh with 30 million people; the estimated damage accounted for 2.5 per cent of gross national product. In 1988, three fifths of the country was flooded, affecting 45 million people and causing damages equal to 6 per cent of the gross national product (World Bank, 1989). As a result of river-bank erosion, closely associated with inundations, about two thirds of inhabitants of the lower Brahmaputra floodplain were displaced at least once in their lifetime (Hague, 1986).

821. A recent study indicates that a 1-metre change in sea-level induced by global warming will permanently inundate

16 per cent of the total area of Bangladesh and 14 per cent of the net cropped area, involving displacement of 10 per cent of the population and agricultural loss equivalent to 11 per cent of annual production of foodgrains, fruits and vegetables, 19 per cent of pulses and 29 per cent of sugar (Mahtab and Karim, 1992). The potential menace of a rise in sealevel is by no means limited to Bangladesh: according to one estimate, a 1-metre rise in sealevel would threaten almost 5 million square kilometres of coastal lands worldwide currently inhabited by more than 1 billion people and encompassing one third of global croplands (UNFPA, 1991). Moreover, global warming is expected to increase the frequency and intensity of tropical storms, and their path will extend towards the higher latitudes, while semi-arid regions (such as the Sahel region of Africa) will experience acute water resource problems. In sum, in view of the vital importance of water to life and economic and social progress, the rapidly increasing water scarcity due to declining per capita water-supplies and water quality degradation due to pollution will pose major challenges in the coming decade and beyond.

NOTES

[1]The countries included in the regional divisions used in this chapter do not in all cases conform to those included in the geographical regions established by the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat.

[2]For a list of the countries classified as least developed by the General Assembly of the United Nations, see Explanatory notes in this volume.

[3]Although a number of multivariate analyses claim to find strong relation between population growth and rates of deforestation, many of their results appear on closer examination to be highly dubious (see Bilsborrow, 1992).

REFERENCES

Allison, Caroline, and Reginald Green (1985). Sub-Saharan Africa: getting the facts straight. *Institute for Development Studies Bulletin* (Brighton, United Kingdom), vol. 16, No. 3.

Andreae, Meinrat (1990). Biomass burning in the tropics: impact on environmental quality and global climate. In *Resources, Environment and Population: Present Knowledge, Future Options*, Kingsley Davis and Mikhail S. Bernstam, eds. Supplement to *Population and Development Review*, vol. 16, 1990. New York: The Population Council and Oxford University Press.

Baril, R., J. Gregory and R. Jacques (1986). *Exodus as a Strategy of Survival: The Case of Rural Haiti*. Collection de tirés à part, No. 211. Montreal, Canada: Université de Montréal, Département de démographie.

Barnard, Geoffrey, and Lars Kristoferson (1985). *Agricultural Residues as Fuel in the Third World*. London: Earthscan Publications.

Barnes, Douglas F., and Liu Qian (1990). Urban interfuel substitution: energy use and equity in developing countries: some preliminary results. Paper prepared for the International Conference of the International Association for Energy Economics, Honolulu, Hawaii, July. Washington, D.C.: The World Bank, Industry and Energy Department.

Bilsborrow, Richard E. (1987). Population pressures and agricultural development in developing countries: a conceptual framework and recent evidence. *World Development* (Tarrytown, New York), vol. 15, No. 2 (February), pp. 183-203.

_____ (1994). Population, development and deforestation: some recent evidence. In *Population, Environment and Development*. Report of the United Nations Expert Group Meeting, United Nations Headquarters, 20-24 January 1992. Sales No. E.94.XIII.7.

Bilsborrow, Richard E., and Pamela DeLargy (1991). Land use, migration and natural resource deterioration: the experience of Guatemala and the Sudan. In *Resources, Environment and Population: Present Knowledge, Future Options*, Kingsley Davis and Mikhail S. Bernstam, eds. Supplement to *Population and Development Review*, vol. 16, 1990. New York: The Population Council and Oxford University Press.

Bilsborrow, Richard E., and Martha E. Geores (1990). Population, environment and sustainable agricultural development. Monograph prepared for the Food and Agriculture Organization of the United Nations. Rome.

_____ (1993). Population, land use and the environment in developing countries: what can we learn from cross-national data? In *The Causes of Tropical Deforestation*, David Pearce and Katrina Brown, eds. London: University College London.

Bilsborrow, Richard E., and H. W. O. Okoth-Ogendo (1992). Population-driven changes in land use in developing countries. *Ambio* (Stockholm; and Lawrence, Kansas), vol. 21, No. 1, pp. 37-45.

Birdsall, Nancy (1994). Another look at population and global warming. In *Population, Environment and Development*. Report of the United Nations Expert Group Meeting, United Nations Headquarters, 20-24 January 1992. Sales No. E.94.XIII.7.

Bojo, Jan (1991). *The Economics of Land Degradation: Theory and Applications for Lesotho*. Stockholm, Sweden: School of Economics.

Boserup, Ester (1965). *The Conditions of Agricultural Growth: The Economics of Agrarian Change under Population Pressure*. London: Allen and Unwin.

_____ (1981). *Population and Technological Change: A Study of Long-term Trends*. Chicago, Illinois: The University of Chicago Press.

Brown, Lester R., and John E. Young (1990). Feeding the world in the nineties. In *State of the World, 1990*, Lester R. Brown and others, eds. A Worldwatch Institute Report on Progress Toward a Sustainable Society. New York and London: W. W. Norton.

Brown, Lester, and others (1990). *State of the World, 1990*. A Worldwatch Institute Report on Progress Toward a Sustainable Society. New York and London: W. W. Norton.

Chisholm, Anthony, and Robert Dumsday, eds. (1987). *Land Degradation: Policies and Problems*. New York: Cambridge University Press.

Cleaver, Kevin, and Gotz Schreiber (1991). *The Population, Environment and Agriculture Nexus in Sub-Saharan Africa*. Africa Regional Technical Paper. Washington, D.C.: The World Bank.

Cruz, María Concepción, and others (1992). *Population Growth, Poverty and Environmental Stress: Frontier Migration in the Philippines and Costa Rica*. Washington, D.C.: World Resources Institute.

Davies, Susanna, and Adam Thiam (1987). *The Slow Onset of Famine: Early Warning, Migration and Post-drought Recovery: The Case of Gao Ville*. Save the Children Fund and Food Emergency Research Unit Report, No. 1. London.

Davis, Kingsley (1963). The theory of change and response in modern demographic history. *Population Index* (Princeton, New Jersey), vol. 29, No. 4 (October), pp. 345-366.

Egunjobi, Layi (1987). Disparities in access to urban water supply: a study of two neighborhoods in Ibadan. In *The Urban Poor in Nigeria*, P. Kofo Makinwa and D.A. Ozo, eds. Ibadan, Nigeria: Evans Brothers.

Esrey, Steven A., and others (1990). *Health Benefits from Improvements in Water Supply and Sanitation: Survey and Analysis of the Literature of Selected Diseases*. Water and Sanitation for Health (WASH) Technical Report, No. 66. Washington, D.C.: United States Agency for International Development.

Falkenmark, Malin (1988). Water, land use and development. Mimeographed.

Food and Agriculture Organization of the United Nations (1992). Rural women: the closing link between population and environment. Discussion note prepared for the United Nations Expert Group Meeting on Population and Women, Gaborone, Botswana, 22-26 June 1992.

Haque, C. E. (1986). Impact of river bank erosion on population displacement in the lower Brahmaputra (Jamuna) floodplain. *Population Geography* (Chandigarh, India), vol. 8, No. 1-2, pp. 1-16.

Hardoy, Jorge E., and David Satterthwaite (1989). *Squatter Citizen: Life in the Urban Third World*. London: Earthscan Publications.

Harrison, Paul (1992). *The Third Revolution: Environment, Population and a Sustainable World*. London: I. B. Tauris.

Ives, Jack D., and Bruno Messerli (1989). *The Himalayan Dilemma: Reconciling Development and Conservation*. London: Routledge.

Joshi, P. K., and Dayanatha Jha (1990). Environmental externalities in surface irrigation systems in India. In *Environmental Aspects of Agricultural Development*. Washington, D.C.: International Food Policy Research Institute.

Kirchner, James, and others (1985). Carrying capacity, population growth, and sustainable development. In *Rapid Population Growth and Human Carrying Capacity: Two Perspectives*, Dennis J. Mahar, and others, eds. World Bank Staff Working Paper, No. 690. Washington, D.C: The World Bank.

Kumar, Shubh K., and David Hotchkiss (1988). *Consequences of Deforestation for Women's Time Allocation, Agricultural Production and Nutrition in the Hill Areas of Nepal*. Research Report 69. Washington, D.C.: International Food Policy Research Institute.

Lele, Uma, and Steven M. Stone (1989). Population pressure, the environment and agricultural intensification: variations on the Boserup hypothesis. MADIA Discussion Paper, No. 4. Washington, D.C.: The World Bank.

Mahtab, Fasihuddin, and Zahurul Karim (1992). Population and agricultural land use: towards a sustainable food production system in Bangladesh. *Ambio* (Stockholm; and Lawrence, Kansas), vol. 21, No. 1, pp. 51-53.

Norman Myers (1994). Population and the environment: the vital linkages. In *Population, Environment and Development*. Report of the United Nations Expert Group Meeting, United Nations Headquarters, 20-24 January 1992. Sales No. E.94.XIII.7.

Oldeman, L. R., V. W. P. van Engelen and J. H. M. Pulles (1990). The extent of human-induced soil degradation. In *World Map of the Status of Human-induced Soil Degradation: An Explanatory Note*, 2nd rev. ed., L. R. Oldeman, R. T. A. Hakkeling and W. G. Sombroek. 2nd rev. ed. Wageningen, Netherlands: International Soil Reference and Information Centre.

Okafor, Francis C. (1987). Population pressure and land resource depletion in southeastern Nigeria. *Applied Geography* (Oxford, United Kingdom), vol. 7, pp. 243-256.

Palmer, Ingrid (1991). *Gender and Population in the Adjustment of African Economies: Planning for Change*. Women, Work and Development Series, No. 19. Geneva: International Labour Office.

Repetto, Robert, and William B. Magrath (1989). *Wasting Assets: Natural Resources in the National Income Accounts*. Washington, D.C.: World Resources Institute.

Rodda, Annabel (1991). *Women and the Environment*. London and Atlantic Highlands, New Jersey: Zed Books.

Sinha, Radha (1984). *Landlessness: A Growing Problem*. FAO Economic and Social Development Series, No. 28. Rome: Food and Agriculture Organization of the United Nations.

Stonich, Susan C. (1989). The dynamics of social processes and environmental destruction: a Central American case study. *Population and Development Review* (New York), vol. 15, No. 2 (June), pp. 269-296.

Thiam, Babaly (1994). Environmental impact on migration and on the spatial redistribution of the population. In *Population, Environment and Development*. Report of the United Nations Expert Group Meeting, United Nations Headquarters, 20-24 January 1992. Sales No. E.94.XIII.7.

Tolba, Mostafa K. (1989). Our biological heritage under siege. *BioScience* (Washington, D.C.), vol. 39, No. 10 (November), pp. 725-728.

_____ (1992). *Saving Our Planet: Challenges and Hopes*. London: Chapman & Hall.

United Nations (1987). Report of the World Commission on Environment and Development: our common future. A/42/427.

_____ (1988). Our common future. Recommendations relevant to water resources development: strategies for the 1990s. ACC/ISGW/ 1988/5.

_____ (1989). *1989 Report on the World Social Situation*. Sales No. E.89.IV.1.

_____ (1990). Achievements of the International Drinking Water Supply and Sanitation Decade, 1981-1990: report of the Secretary-General. A/45/327.

_____ (1991a). Preparatory Committee for the United Nations Conference on Environment and Development. Progress report on poverty and environmental degradation: report of the Secretary-General of the Conference. A/CONF.151/PC/15.

_____ (1991b). Preparatory Committee for the United Nations Conference on Environment and Development. Poverty and environmental degradation: report of the Secretary-General of the Conference. A/CONF.151/PC/45.

_____ (1991c). Preparatory Committee for the United Nations Conference on Environment and Development. Summary of recommendations of the regional preparatory meetings for UNCED: report of the Secretary-General of the Conference. A/CONF.151/PC/43.

_____ (1992). *World Population Monitoring, 1991: With Special Emphasis on Age Structure*. Sales No. E.92.XIII.2.

_____ (1993a). *Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992*, vol. I, *Resolutions Adopted by the Conference*. Sales No. E.93.I.8.

_____ (1993b). *World Population Prospects: The 1992 Revision*. Sales No. E.93.XIII.7.

_____ Committee for Development Planning (1990). Water, the fundamental resource. Occasional Paper, No. 1 (February).

United Nations Secretariat (1991). Relationships between population and environment in the rural areas of developing countries. *Population Bulletin of the United Nations* (New York), No. 31/32. pp. 52-69. Sales No. E.91.XIII.18.

United Nations Children's Fund (1988). Water, sanitation and health for all by the year 2000. E/ICEF/1988/L.4.

United Nations Population Fund (1990). *Report of the International Forum on Population in the Twenty-first Century, Amsterdam (Netherlands), 6-9 November 1989*. New York.

_____ (1991). *Population, Resources and the Environment: The Critical Challenges*. New York.

_____ (n.d.). *Population and the Environment: The Challenges Ahead*. New York.

United States of America, Agency for International Development, Office of Disaster Assistance (1987). *Disaster History: Major Disasters Worldwide, 1900-Present*. Washington, D.C.

Winthrop, Carty P. (1991). Towards an urban world. *Earthwatch* (Watertown, Massachusetts), No. 43.

World Bank (1982). *Bangladesh: Rural and Renewable Energy Development Prospects*. Energy Department Paper, No. 5. Washington, D.C.

_____ (1989). *Bangladesh Action Plan for Flood Control*. Washington, D.C.

_____ (1990). *World Development Report, 1990: Poverty*. New York: Oxford University Press.

_____ (1991). *World Development Report, 1991: The Challenge of Development*. New York: Oxford University Press.

_____ (1992). *World Development Report, 1992: Development and the Environment*. New York: Oxford University Press.

World Commission on Environment and Development (1987). *Our Common Future*. Oxford, United Kingdom; and New York: Oxford University Press.

World Resources Institute, United Nations Environment Programme and United Nations Development Programme (1992). *World Resources, 1992-93*. New York: Oxford University Press.

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