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## DEVELOPMENT AND INTERNATIONAL ECONOMIC CO-OPERATION

# Developing human resources for development

# Report of the Secretary-General

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#### I. INTRODUCTION

- 1. The present report has been prepared in pursuance of paragraph 18 of General Assembly resolution 44/213 of 22 December 1989, in which the Assembly requested the Secretary-General to submit to it at its forty-fifth session a report on human resources development, including an assessment of the negative impact of the current economic situation facing developing countries on their efforts for human resources development, recommendations for policy measures to promote human resources development in developing countries and ways and means of increasing the support of the international community, in particular developed countries, for human resources development in developing countries, taking into account, inter alia, the report requested by the Economic and Social Council in resolution 1989/120 of 28 July 1989 and the results of the World Conference on Education for All, to be held at Bangkok in March 1990.
- 2. There is no agreed definition of human resource development or human development, as it will also be referred to in the present report but there may be no great need for one, as there is a large and implicit consensus on its fundamental components. In many respects the emphasis on the human condition comes closer to general ideas about the purpose of development than strictly economic measures such as gross domestic product per capita.
- 3. Generally, however, most measures of human development show a very strong relationship with the level of economic development. As seen in table 1, the countries of the world in which life expectancy at birth is 70 years or more are nearly all, with a small number of interesting exceptions, industrialized and developed countries; whereas life expectancy in developing countries is below 70 years and in the poorest countries even below 50 years.
- 4. Similarly, adult literacy rates are close to 100 per cent in all developed countries. Among developing countries, more than 90 per cent of the adult population in eight countries, all in Latin America, with the exception of Thailand, were literate (see table 2), but in contrast, in 11 developing countries in Africa, in Nepal and Pakistan in Asia and Yemen in Western Asia, less than 30 per cent of the adult population was literate. Among adult females, illiteracy was even more widespread. In 24 developing countries, with 23 per cent of the world's female population, adult female literacy rates were below 30 per cent (see table 3). This group of countries includes Afghanistan, Bangladesh, India, Nepal and Pakistan in Asia, Yemen in Western Asia and 17 countries in Africa.
- 5. These aspects of human resources development reinforce each other. Literate parents especially mothers tend to know fore about hygiene, nutrition and medical care and help reduce infant mortality and thus raise the average expectation of life at birth. Of the 27 countries in table 1, where the average expectation of life is less than 50 years, in 16 of them female adult literacy is less than 30 per cent. Better nutrition and lower morbidity in smaller families provide opportunities for regular attendance at school and the better exploitation of opportunities for education. For policy purposes, the association is instructive. Policies to improve health and nutrition conditions are likely to be

Table 1. Average expectancy of life at birth (1985-1990)

| Albania<br>Argentina<br>Australia<br>Austria<br>Bahrain<br>Barbados<br>Belgium<br>Bulgaria<br>Canada | Algeria<br>Brazil<br>Burma<br>Cape Verde<br>China | Bangladeth<br>Bolivia<br>Botswana | Afghanistan<br>Angola            |
|--|---|-----------------------------------|----------------------------------|
| Australia<br>Austria<br>Bahrain<br>Barbados<br>Belgium<br>Bulgaria                                   | Burma<br>Cape Verde<br>China                      | Botswana                          |                                  |
| Austria<br>Bahrain<br>Barbados<br>Belgium<br>Bulgaria  | Cape Verde<br>China                               |                                   | Donie                            |
| Bahrain<br>Barbados<br>Belgium<br>Bulgaria   | China   | A                                 | Benin                            |
| Barbados<br>Belgium<br>Bulgaria  |   | Cameroon                          | Bhutan                           |
| Belgium<br>Bulgaria  | 0-1   | Comoros                           | Burkina Faso                     |
| Bulgaria   | Colombia  | Côte d'Ivoire                     | Burundi                          |
| . •  | Dominican Republic                                | Gabon                             | Cambodia                         |
| Canada   | Ecuador   | Ghana                             | Central African Republic         |
|  | Egypt   | Haiti                             | Chad                             |
| Chile  | El Salvador                                       | India                             | Congo                            |
| Costa Rica   | Guatemala   | Indonesia                         | Djibouti                         |
| Cuba   | Guyana  | Kenya                             | Equatorial Guinea                |
| Cyprus   | Honduras  | Lesotho                           | Ethiopia                         |
| Czechoslovakia   | Iran (Islamic Republic of)                        | Liberia                           | Gambia                           |
| Denmark  | Iraq  | Madagascar                        | Guinea                           |
| Fiji   | Jordan  | Namibia                           | Guinea-Bissau                    |
| Finland  | Lebanon   | Nepal                             | Lao People's Democratio Republic |
| Prance   | Libyen Arab Jamahiriya                            | Nigeria                           | Malawi                           |
| German Democratic Republic   | Malaysia  | Oman                              | Mali                             |
| Germany, Federal Republic of   | -   | Pakistan                          | Mauritania                       |
| Greece   | Mex 100   | Papua New Guinea                  | Mozambique                       |
|  | Mongolia  | Swaziland                         | Nidet                            |
| Hungary  | Motocco   | Togo                              | Rwanda                           |
| Iceland  | Nicaraqua   | Uganda                            | Senegal                          |
| Ireland  |   | United Republic of Tanzania       | Sierra Leone                     |
| Israel   | Paraquay  | Xemen                             | Somalia                          |
| Italy  | Peru  |                                   |                                  |
| Jamaica  | Philippines                                       | Zaire                             | Sudan                            |
| Japan  | Qatar   | Zambia                            |                                  |
| Kuwait   | Saudi Arabia                                      | 2 imbabwe                         |                                  |
| Luxembourg   | South Africa                                      |                                   |                                  |
| Malta  | Suriname  |                                   |                                  |
| Netherlands  | Syrian Arab Republic                              |                                   |                                  |
| New Zealand  | Theiland  |                                   |                                  |
| Norway   | Tunisia   |                                   |                                  |
| Panama   | Turkey  |                                   |                                  |
| Poland   | Union of Soviet Socialist                         |                                   |                                  |
| Portugal   | Republics   |                                   |                                  |
| Romania  | Venezuela   |                                   |                                  |
| Singapore  | Viet Nam  |                                   |                                  |
| Spain  |   |                                   |                                  |
| Sri Lanka  |   |                                   |                                  |
| Sweden   |   |                                   |                                  |
| Switzerland  |   |                                   |                                  |
| Trinidad and Tobago  |   |                                   |                                  |
| United Arab Emirates   |   |                                   | •                                |
| United Kingdom   |   |                                   |                                  |
| United States of America   |   |                                   |                                  |
| Uruquay  |   |                                   |                                  |
| Yugoslavia   |   |                                   |                                  |
|  | <del></del>                                       |                                   |                                  |
| Group population   |   |                                   |                                  |
| (thousands) 987 957  | 2 157 81  | 1 435 332                         | 180 299                          |
| <b>.</b>   |   |                                   |                                  |
| Percentage of world population 20.35   | 44.46   | 29.57                             | 3.71                             |

Source: United Nations, World Population Prospects 1988 (Sales No. ST/ESA/SER.A/106).

Table 2. Adult literacy rates in developing countries (around 1985)

| Argentin Chile Costa Rica Guyana Mexico Suriname Thailand Trinidad and Tobago | Bahrain Bolivia Botswana Brazii China Colombia Congo Dominican Republic Ecuador Et Salvador Ethiopia | Algeria<br>Angola<br>Bangladesh<br>Burundi<br>Cameroon<br>Cape Verde<br>Central African Republic<br>Côte d'Ivoire | Afghanistan<br>Benin<br>Burkina Faso<br>Chad<br>Gambia<br>Guinea<br>Mali |
|---|--|---|--|
| Chile<br>Costa Rica<br>Guyana<br>Mexico<br>Suriname<br>Theiland               | Botawana Brazil China Colombia Congo Dominican Republic Ecuador E1 Salvador                          | Angola<br>Bangladesh<br>Burundi<br>Cameroon<br>Cape Verde<br>Central African Republic<br>Côte d'Ivoire            | Benin<br>Burkina Faso<br>Chad<br>Gambia<br>Guinea<br>Mali                |
| Costa Rica<br>Guyana<br>Mexico<br>Suriname<br>Thailand                        | Brazil<br>China<br>Colombia<br>Congo<br>Dominican Republic<br>Ecuador<br>El Salvador                 | Bangladesh<br>Burundi<br>Cameroon<br>Cape Verde<br>Central African Republio<br>Côte d'Ivoire                      | Burkina Faso<br>Chad<br>Gambia<br>Guinea<br>Mali                         |
| Mexico<br>Suriname<br>Thailand  | China<br>Colombia<br>Congo<br>Dominican Republic<br>Ecuador<br>El Salvador                           | Burundi<br>Cameroon<br>Cape Verde<br>Central African Republic<br>Côte d'Ivoire                                    | · Chad<br>Gambia<br>Guinea<br>Mali                                       |
| Mexico<br>Suriname<br>Chailand  | China<br>Colombia<br>Congo<br>Dominican Republic<br>Ecuador<br>El Salvador                           | Cameroon<br>Cape Verde<br>Contral African Republic<br>Côte d'Ivoire   | Gambia<br>Guinea<br>Mali   |
| Buriname<br>Chailand  | Colombia<br>Congo<br>Dominican Republic<br>Ecuador<br>El Salvador                                    | Cape Verde<br>Onntral African Republic<br>Côte d'Ivoire   | Guinea<br>Mali   |
| Thailand  | Congo<br>Dominican Republic<br>Ecuador<br>El Salvador  | Contral African Republic<br>Côte d'Ivoire   | Mali   |
|   | Dominican Republic<br>Ecuador<br>El Salvador   | Côte d'Ivoire   | •  |
|   | Ecuador<br>El Salvador   |   | Nepal  |
|   | El Salvador  | Democratic Yemen a/   | Niger  |
|   |  | Egypt   | Pakistan   |
|   |  | Equatorial Guinea   | Senegal  |
|   | Fiji   | Ghana   | Sierra Leone   |
|   | Gabon  | Guatemala   |  |
|   | Honduras   | Guinea-Bissau   | Somalia  |
|   | Indonesia  | Haiti   | Yemen <u>a</u> /   |
|   | Iraq   |   |  |
|   | Jordan ·   | India   |  |
|   | Kuwait   | Iran (Islamic Republic of)  |  |
|   |  | Kenya   |  |
|   | Lao People's Democratic  | Liberia   |  |
|   | Republic   | Malawi  |  |
|   | Lebanon  | Morocco   |  |
|   | Lesotho  | Mozambique  |  |
|   | Libyan Arab Jamahiriya   | Nigeria   |  |
|   | Madagascar   | Papua New Guinea  |  |
|   | Malaysia   | Rwanda  |  |
|   | Mauritius  | Togo  |  |
|   | Nicaragua  | Tunisia   |  |
|   | Panama   | Uganda  |  |
|   | Pataguay   |   |  |
|   | Peru   |   |  |
|   | Philippines  |   |  |
|   | Portugal   |   |  |
|   | Singapore  |   |  |
|   | Sti Lanka  |   |  |
|   | Swaziland  |   |  |
|   | Syrian Arab Republic   |   |  |
|   | Turkey   |   |  |
|   | Venezuela  |   |  |
|   | Zatre  |   |  |
|   | Zambia   |   |  |
|   | Zimbabwe   |   |  |
| Group population (thousands) 178 587  | t where the  | 3 1 247 77  | 7 196 03   |
| Percentage of world population 3.68   | 1 765 77   | 25,71   | 4.04   |

Source: Compensium of statistics on illiteracy, No. 30 (UNESCO) and the World Population Prospects 1988.

a/ On 22 May 1990, Democratic Yemen and Yemen merged to form a single State.

Table 3. Adult female literacy rates in developing countries (around 1985)

| 90 per cent and mo            | re     | 60-89 per cent          |        | J0-59 per cent           |       | Less than 30 per       | oent   |
|-------------------------------|--------|-------------------------|--------|--------------------------|-------|------------------------|--------|
| Argentina                     |        | Bahrain                 |        | Algeria                  |       | Afghanistan            |        |
| Costa Rica                    |        | Bolivia                 |        | Cameroon                 |       | Bangladesh             |        |
| iuyana                        |        | Botswana                |        | Cape Verde               |       | Benin                  |        |
| Buriname                      |        | Brazil                  |        | China                    |       | Burkina Faso           |        |
| Trinidad and Tobago           |        | Colombia                |        | Congo                    |       | Burundı                |        |
|                               |        | Dominican Republic      |        | Côte d'Ivoire            |       | Central African Republ | ic     |
|                               |        | Scuador                 |        | Egypt                    |       | Chad                   |        |
|                               |        | El Salvador             |        | Gabon                    |       | Democratic Yemen       |        |
|                               |        | Piji                    |        | Ghana                    |       | Gambia                 |        |
|                               |        | Indonesia               |        | Guatemala                |       | Guinea                 |        |
|                               |        | Iraq                    |        | Hait1                    |       | Guinea-Bissau          |        |
|                               |        | Jordan                  |        | Honduras                 |       | India                  |        |
|                               |        | Kuwait                  |        | Iran (Islamic Republic ) | of)   | Liberia                |        |
|                               |        | Lao People's Democratio | ;      | "lenya                   |       | Mali                   |        |
|                               |        | Republic                |        | Libyan Arab Jamahiriya   |       | Morocco                |        |
|                               |        | Lebanon                 |        | Mali                     |       | Mozambique             |        |
|                               |        | Lesotho .               |        | Nigeria                  |       | Nepal                  |        |
|                               |        | Madaqascar              |        | Papua New Guinea         |       | Niger                  |        |
|                               |        | Malaysia                |        | Rwanda                   |       | Pakistan               |        |
|                               |        | Mauritius               |        | Syrian Arab Republic     |       | Senegal                |        |
|                               |        | Mexico                  |        | Tunisia                  |       | Sierra Leone           |        |
|                               |        | Panama                  |        | Uganda                   |       | Somalia                |        |
|                               |        | Paraguay                |        | Zaire                    |       | T <b>og</b> o          |        |
|                               |        | Peru                    |        |                          |       | Yemen                  |        |
|                               |        | Philippines             |        |                          |       |                        |        |
|                               |        | Portugal                |        |                          |       |                        |        |
|                               |        | Singapore               |        |                          |       |                        |        |
|                               |        | Sri Lanka               |        |                          |       |                        |        |
|                               |        | Swaziland               |        |                          |       |                        |        |
|                               |        | Thailand                |        |                          |       |                        |        |
|                               |        | Turkey                  |        |                          |       |                        |        |
|                               |        | Venezuela               |        |                          |       |                        |        |
|                               |        | Yugoslavia              |        |                          |       |                        |        |
|                               |        | zambia                  |        |                          |       |                        |        |
|                               |        | 2 imbabwe               |        |                          |       |                        |        |
| Cotal female                  |        |                         |        |                          |       |                        |        |
| (thousands)                   | 17 852 | 3                       | 80 695 | 69                       | 9 282 |                        | 542 11 |
| Percentage of<br>world female |        |                         |        |                          |       |                        |        |
| opulation                     | 0.74   |                         | 15.78  | 2                        | 8.98  |                        | 22.47  |

Source: Compendium of statistics on illiteracy, No. 30 (UNESCO) and the World Population Prospects 1988.

greatly reinforced by policies to make women literate. Literate parents have smaller families and more healthy children who make more productive use of opportunities for education.

- 6. Education has a pivotal role. It makes one literate and thus competent to receive information, to communicate with other agents active in economic and social life and to participate in the political life of the community. Education is also the principal means of acquiring skills, required in economies as they grow and diversify. Education is also expected to provide the capacity to adapt to changes in economy and society by making one capable of amassing new knowledge and skills and seizing new opportunities for improvement. Although education is acquired mostly in the early stages of one's life, in periods of rapid change in technology the learning of new skills in adult life becomes especially important. And in societies where adult literacy is low, adult education programmes function to make them literate.
- 7. With universal primary education effective over several decades, the employed labour force in developed countries is virtually all literate (see table 4). Proportions ranging from 6 per cent in Austria to 23 per cent in the United States of America have had university education. In contrast, the proportion of the labour force that had not had formal education is very high in Haiti (73 per cent), India (67 per cent), Bangladesh (62 per cent), Côte d'Ivoire (59 per cent), Mozambique (58 per cent), Morocco (56 per cent) and Egypt (53 per cent). Among developing countries the proportion who have had education at a level higher than secondary exceeds 10 per cent in the Philippines, Peru and Cuba. The instruction in these contrasting - and admittedly uncertain - figures is not that developing countries should have some 10 per cent or more of their labour force educated to a level beyond the secondary level. The patterns of education in the labour force in developed countries correspond to patterns of production and consumption in these societies which are several generations out in the future compared to that in most developing countries. Requirements of high priority in most developing countries would be education and skills required to produce more food, clothing, shelter and to build roads, irrigation and power systems and sewerage facilities together with other parts of the infrastructure to enable the production of these primary requirements.
- 8. The consequences of a lower level of human resources development is low productivity of labour. 1/ However, it is important to bear in mind that the lower labour productivity in developing countries is also and more directly attributable to distinctly lower volumes of physical capital roads, power grids, factories, equipment with which they work. So that while the development of human resources is necessary for raising labour productivity it is by itself insufficient in the absence of physical infrastructure and equipment.
- 9. Among developing countries as a group, human resources development is low in Africa and South Asia (except Sri Lanka) and high in Latin America, with the rest of Asia occupying an intermediate position.

Table 4. Estimates of educational composition of labour force in selected countries

(Percentage of the labour force)

|   |      |              |            | Prim     | aty        | Secon    |        |
|---|------|--------------|------------|----------|------------|----------|--------|
|   | Year | No education | Incomplete | Complete | Incomplete | Complete | Higher |
| Developing countries                            |      |              |            |          |            |          |        |
| Argentina                                       | 1980 | 4.7          | 24.9       | 34.8     | 17.7       | 9.5      | 8.4    |
| Bangladesh                                      | 1981 | 62,4         | 15.9       | 4.1      | 10.7       | 5.5      | 1.5    |
| Brazil  | 1980 | 24.7         | 35.3       | 7.9      | 19.6       | 6.6      | 5.9    |
| Chile   | 1981 | 4.1          | 32.2       | 18.8     | 24.4       | 12.2     | 8.3    |
| China   | 1982 | 28.3         | 13.1       | 21.3     | 25.8       | 10.7     | 0.9    |
| Colombia  | 1976 | 16.3         | 31.3       | 23.6     | 9.2        | 14.9     | 4.7    |
| Côte d'Ivoire                                   | 1978 | 59.2         | 3.1        | 18.0     | 14.4       | 5.3      | 0.0    |
| Cuba  | 1981 | 4.2          | 23.5       | 22.6     | 29.0       | 9.9      | 11.9   |
| Ecuador   | 1982 | 16.2         | 13.9       | 37.0     | 13.5       | 10.8     | 8.5    |
| Egypt   | 1976 | 53.2         | 19.3       | 10.1     | 5.6        | 6.7      | 5.1    |
| Guyana  | 1982 | 17.6         | 0.0        | 34.2     | 41.7       | 1.2      | 5.3    |
| Haiti   | 1982 | 72.9         | 15.5       | 3.4      | 3,5        | 4.0      | 0.8    |
| India   | 1981 | 66.6         | 14.5       | 6.9      | 4.9        | 3,9      | 3.2    |
| Indonesia                                       | 1978 | 31.6         | 23.1       | 35.7     | 5.3        | 3.8      | 0.5    |
| Kenya   | 1980 | 48.9         | 16.0       | 24.9     | 4.0        | 5.8      | 0.4    |
| Malaysia  | 1980 | 17.9         | 17.1       | 23.4     | 22.9       | 16.1     | 2.6    |
| Mexico  | 1977 | 26.9         | 28.8       | 26.9     | 8.9        | 3.2      | 5.2    |
| Morocco   | 1982 | 56.4         | 12.9       | 8.8      | 14.9       | 5.1      | 1.9    |
| eupidmasom                                      | 1980 | 57.7         | 28.2       | 11.4     | 2.5        | 0.2      | 0.1    |
| Peru  | 1981 | 13.5         | 20.7       | 26.2     | 12.9       | 14.6     | 12.1   |
| Philippines                                     | 1980 | 7.8          | 21.3       | 27.4     | 15.1       | 12.7     | 15.7   |
| Republic of Korea                               | 1980 | 14.8         | 1.1        | 33.2     | 18,5       | 23,4     | 9.1    |
| Singapore                                       | 1980 | 21.9         | 3.0        | 46.4     | 18.4       | 6.3      | 4.0    |
| Sri Lanka                                       | 1981 | 8,5          | 12.7       | 35.9     | 38.3       | 2.6      | 1.6    |
| Turkey  | 1980 | 16.1         | 10.3       | 50.4     | 9.8        | 8.9      | 4.5    |
| Venezuela                                       | 1979 | 15.9         | 24.8       | 24.8     | 17.1       | 11.).    | 6.3    |
| Zambia  | 1979 | 20.2         | 38.4       | 13.8     | 6.3        | 20.2     | 1.1    |
| Developed countries                             | 1987 |              |            |          |            |          |        |
| Austria   |      |              |            |          | 31.4       | 62,4     | 6.2    |
| Canada  |      |              |            |          | 23.8       | 61.5     | 14.7   |
| Germany, Federal Republic of                    |      |              |            |          | 22.5       | 71.2     | 6.3    |
| Japan   |      |              |            |          | 29.2       | 56.3     | 14.5   |
| Spain   |      |              |            |          | 58.6       | 36.4     | 5.0    |
| Sweden  |      |              |            |          | 44.1       | 44.8     | 11.1   |
| United Kingdom of Great<br>Britain and Northern |      |              |            |          |            |          |        |
| Ireland   |      |              |            |          | 56.2       | 26.8     | 17.0   |
| United States of America                        |      |              |            |          | 16.4       | 60.2     | 23.4   |

Source: For developing countries, G. Psacharopoulos and A. M. Arriagada, "The educational composition of the labour force: An international comparison", <u>International Labour Review</u>, vol. 125, No. 5, Sept./Oct. 1986, ILO, Geneva. For developed countries, OECD <u>Employment Outlock</u>, July 1989 (OECD, Paris).

## II. POLICIES IN DEVELOPING COUNTRIES

## A. Priorities, equity and efficiency

- 10. Fundamental questions in respect of policies for the development of human resources arise with the allocation of resources for health, nutrition and education. These resources are raised either through public sector institutions, church and other voluntary organizations or on private initiative. Domestic resources for human resources development are supplemented by resources from overseas. Although resources from abroad are small in proportion, they are essential to provide some specialized teachers and other skilled personnel, to inject new perceptions and practices, and to introduce new equipment and technology.
- 11. On the disbursal of resources so raised, perhaps the most vexing questions relate to their distribution. The distribution must satisfy both equity and efficiency considerations and be politically viable. First, there are the questions of distribution between rural and urban areas, the larger proportion of the population, except in Latin America, living in rural areas, but the better organized and politically more vocal groups living in urban areas. The same issue arises where some regions within an economy, for historical reasons or due to scarcity of other infrastructure, are less well endowed with facilities for human resources development than others. There is also the problem of providing equal access to these services by males and females.
- 12. These considerations are all bound up with providing access to services for people in different social strata in each community.
- 13. , Many of these questions of distribution are intimately tied up with decisions regarding the way resources are disbursed to provide various components of health, nutrition and education programmes. The allocation of resources between public health and curative medicine and between primary health care and other health services affects the distribution of health services between rural and urban areas and among different income strata. Allocating expenditure for nutrition to pregnant and lactating mothers, infants and young children rather than to adult workers in urban inductry can bring about major improvements in human resources development. The distribution of educational resources among primary, secondary and tertiary levels is of crucial importance, not only because of the overwhelming value of primary education but also because in most countries the continuing growth of primary and secondary education depends on the availability of graduates from their own tertiary institutions. Further, decisions regarding the allocation of resources between general and technical education, especially at the secondary and tertiary levels, will bear on the fit between the output of the educational system and the skill requirements of the economy.
- 14. The efficiency with which resources are used for human development depends on several decisions taken by societies. The ways of raising resources are themselves important. Individuals or families paying from their own resources for services they obtain generally would not permit waste. The expenditure of resources provided from a distant source, such as a central government, tends to receive less close scrutiny. However, services such as public health are public goods and

cannot be provided or paid for privately. Others such as primary education bring such large benefits to society at large 'n contrast to the individual or family receiving that education, relying only on the private sale and purchase of these services would deny societies large benefits. Finally, in the highly structured societies of most developing countries only a small minority would acquire these services if the provision were left entirely to private sector initiatives. Therefore, it is sometimes necessary to split the decisions as to who finances the expenditure and who manages and controls the institutions that provide services. There has been growing enthusiasm for a larger degree of local control and management to increase the accountability of those providing these services and thereby promote efficiency in resources use, while financing is provided from a central source.

- 15. The efficiency of resource use is also affected by the mix of inputs used to provide these services. In education, a central decision is that between teachers and teaching material including textbooks, equipment and such simple requisites as chalk and blackboards. Levels of education reached by teachers and the skills acquired by them determine, in part, the quality of instruction they impart. If fairly simple structures are used to provide educational facilities, a given volume of capital expenditure on education can be more widely spread. In providing health services an important question is the sort of skills that medical practitioners acquire in the course of their training. High levels of skills obtained over long periods of intensive and costly training are often at the expense of simple and widely used skills acquired over short periods of time at a fraction of the costs required for the alternative.
- 16. The acquisition of skills adds to the mobility of labour between economies. Those with skills marketable at higher prices in high-wage economies will leave the low-wage economies although their contribution to the development of the latter economies may be greater than in the former. With the emerging shortages of labour in several developed countries, there will be strong incentives for trained workers from developing countries to migrate to developed countries, attracted by high wages. Among developing countries a similar pattern of migration to higher-wage economies has been evident in the past and is likely to continue. Raising salaries of skilled people to keep them from leaving will conflict with egalitarian ambitions but in an open world economy that will be inevitable.

## B. Allocation of resources

17. Human resources development has not received the same priority in all developing countries. Estimates of total health expenditures in developing countries range from 2 per cent of gross domestic product (GDP) in the poorest countries to about 5 per cent of GDP in the middle-income countries. The share of these expenditures accounted for by Government ranges from 30 to 70 per cent, with government expenditure representing a smaller proportion of the total in poorer countries. 2/ Table 5 contains figures showing the percentage of expenditure on primary education and health in a number of developing countries in 1985. Although a very high degree of accuracy cannot be vouchsafed for these figures, the general conclusion one can reach is not vitiated thereby. Countries on the left side of the table, which spent much larger proportions of their GNP on primary education and health services, have achieved a higher level of literacy and average expectation of life at birth than those on the right side.

Table 5. Expenditure on primary education and health as a percentage of GNP, 1985

## Primary education

| Botswana   | 2.8 | Ghana         | 0.7 |
|------------|-----|---------------|-----|
| Chile      | 2.2 | Haiti         | 0.6 |
| Costa Rica | 1.5 | India         | 1.2 |
| Thailand   | 2.0 | Nepal         | 1.0 |
| Tunisia    | 2.3 | Pakistan      | 0.7 |
|            | ;   | <b>Health</b> |     |
| Chile      | 2.1 | Burkina Faso  | 0.9 |
| Malaysia   | 1.8 | Ethiopia      | 1.2 |
| Mauritius  | 2.1 | India         | 0.3 |
| Sri Lanka  | 1.3 | Pakistan      | 0.2 |

Source: World Development Report 1990, p. 46.

- 18. In the early 1980s, government and private expenditure on health in developing countries averaged \$9 per capita in low-income countries and \$31 in middle-income countries. These figures should be compared with an average of \$670 in developed countries. 3/ Public expenditure per capita ranged between \$0.80 and \$16 in 29 low-income countries, with about half of them spending \$3 or less, while for 39 lower middle-income countries it r.\nged between \$4 and \$67, with about half of them spending \$12 or less. 4/
- 19. In most developing countries, a part of the health services is provided by the private sector and is privately financed. In Indonesia, Malaysia, Peru and Thailand, private physicians account for at least 25 per cent of outpatients. In the Republic of Korea and the Philippines, as many as 40 per cent of visits are to private physicians, even in rural areas. 3/ The private sector expanded in the 1980s. In Jamaica and Sri Lanka, where there have been marked successes in providing public health services, private practice provision has been encouraged in recent years. In Malaysia, the proportion of physicians in private practice rose from 43.2 per cent of all physicians in 1975 to 52 per cent in 1983 and 55 per cent in 1985. In Sri Lanka, investment in public sector hospital beds stagnated during the 1980s while the number of private sector hospital beds appears to have at least doubled. In Indonesia, about half of all hospitals and 30 per cent of beds are private, 17 per cent of the country's physicians and 15 per cent of its nursing and paramedical staff were employees of private hospitals in 1985.

- 20. In many developing countries, households spend 2 to 5 per cent of their annual income on health care. 3/ Expenditure by individuals account for over 70 per cent of total health expenditures in Bangladesh, Pakistan, the Republic of Korea, the Syrian Arab Republic and Thailand and less than 30 per cent in a number of African countries. Private payments by individuals account, on average, for more than half of all health spending in developing countries, compared to less than one quarter in developed countries. Spending on non-governmental health care consists mostly of fees for services and payments for drugs. 5/
- 21. User fees for services provided in government facilities are low in most developing countries. Revenue from user fees as a percentage of total governmental expenditure on nealth services in the early 1980s ranged from 2 per cent in Pakistan to 17.4 per cent in Colombia, the average for developing countries being 7 per cent. Only a few countries recover more than 15 per cent of health expenditure through fees. In China, hospitals recover about three quarters of their operating costs through user fees and payments for drugs.
- 22. The impact of adverse economic conditions in developing countries in the 1980s, especially in Africa and Latin America, has been to make it more difficult to allocate resources to human development than earlier. In sub-Saharan Africa and Latin America there were substantial declines in real per capita spending on education and health in the early 1980s. 6/ The fall in levels of income, assistance from abroad, government revenues and changes in priorities in government expenditure all contributed to reduce government expenditure on social services including nutrition, education and health. In Africa, and in Latin America and the Caribbean, in six out of eight countries for which there were data, the proportion of government expenditure on social services fell between 1981 and 1985 (see A/45/137-E/1990/35, sect. III). The drop was precipitous between 1981 and 1987 in Mexico (from 39 per cent to 18 per cent), in Brazil (from 46 per cent to 33 per cent), in the United Republic of Tangania (from 22 per cent to 16 per cent) and in Togo (from 34 per cent to 24 per cent). There were significant reductions in Uganda and Zambia. Government real expenditure per person on social services fell 44 per cent between 1980 and 1984 in Madagascar, 48 per cent between 1980 and 1985 in Senegal and 62 per cent between 1980 and 1986 in Somalia. 1/
- 23. Public current expenditure in real terms on education per student at almost all levels fell during the first part of the 1980s in Africa and Latin America (see table 6).
- 24. Worsening economic conditions and tight government budgets in the 1980s in many African countries, including Ghana, Liberia, Mali and the United Republic of Tanzania, have caused enrolments at the primary levels to fail to keep pace with the qualifying age cohorts. 8/
- 25. From 1980 to 1984, expenditure on health per capita fell in 14 countries of Latin America for which there are data. Per capita expenditures on health fell in 7 out of 15 countries in Africa, in 3 out of 7 countries in the Middle East, and in 4 out of 12 countries in South and East Asia, where data are available only for 1979-1983. 9/

Table 6. Public current expenditure per student
(1980 United States dollars)

|  | First |       | Second |       | Third |       |
|--|-------|-------|--------|-------|-------|-------|
|  | 1980  | 1985  | 1980   | 1985  | 1980  | 1985  |
| World total a/                             | 179   | 191   | 523    | 549   | 2 859 | 2 792 |
| Developing countries                       | 95    | 92    | 168    | 154   | 771   | 641   |
| North Africa                               | 166   | 178   | 610    | 424   | 982   | 998   |
| Sub-Saharan Africa a/                      | 63    | 62    | 210    | 198   | 2 915 | 1 940 |
| South Asia                                 | 20    | 31    | 40     | 63    | 128   | 220   |
| Cast Asia (newly industrialized countries) | 200   | 360   | 211    | 325   | 514   | 473   |
| Other East Asia                            | 68    | 94    | 103    | 125   | 197   | 170   |
| West Asia                                  | 369   | 200   | 737    | 456   | 2 652 | 1 861 |
| Latin America and the Caribbean            | 187   | 171   | 229    | 176   | 1 439 | 1 132 |
| China                                      | 10    | 17    | 27     | 51    | 914   | 1 144 |
| Least developed countries                  | 27    | 30    | 92     | 89    | 807   | 343   |
| Developed market economy countries         | 1 239 | 1 469 | 2 156  | 2 180 | 4 282 | 4 710 |
| Castern Europe and USSR                    | 714   | 768   | 617    | 617   | 3 177 | 3 546 |

Source: Department of International Economic and Social Affairs.

Note: Country group expenditures are averages of the individual country expenditures weighted by the number of students at the respective levels.

a/ Excluding Nigeria.

- 26. Central government expenditure on health as a percentage of total government expenditure in developing countries fell between 1972 and 1987 (see table 7). The proportion fell in 9 out of 12 countries in Africa, in 6 out of 10 countries in Asia, in 7 out of 11 countries in Latin America, and in 1 of 4 in Western Asia. In Africa there was an increase in Botswana, Ghana and Malawi, in Latin America in Argentina, Bolivia, Brazil, Costa Rica and Panama and in Asia in the Republic of Korea, the Philippines and Thailand and slightly in Indonesia. The drop was steep in Kenya (from 7.80 per cent to 6.08 per cent), Nigeria (from 3.60 per cent to 0.78 per cent), Zambia (from 7.40 per cent to 4.71 per cent), Myanmar (from 6.10 per cent to 4.42 per cent), Bolivia (from 6.30 per cent to 1.89 per cent), El Salvador (from 10.10 per cent to 7.38 per cent), and Mexico (from 5.10 per cent to 1.27 per cent).
- 27. In many developing countries, in particular in Africa and Latin America, religious missions and other non-profit groups are important providers of health services. Religious missions are particularly effective as informal local health organizations. Church-related health services are often multidimensional and involve hospital-based services with outreach clinics. In Malawi, the Private Hospital Association of Malawi which is an important provider of health services, is made up largely of church organizations. Of the country's 44 hospitals, excluding 2 regional hospitals, 20 are run by the Association, and contain 38 per cent of all hospital beds in the country. 10/
- 28. In developing countries, about one seventh of the children are in private schools. At the primary level this proportion is about 12 per cent and at the secondary level 28 per cent. 11/ While resources from the private sector augment public sector resources for education, there are two dangers. The first is that those with capacity to pay because of private means will acquire further income-earning assets in the form of education and professional skills that similarly placed persons without private financial means cannot. The second is that those outside the State system may command more resources and resources of superior quality and thus gain a march over others. In both instances, the results would add to existing inequity. A scheme of scholarships awarded on the basis of merit and economic need would substantially reduce the inequity in these processes. However, children from affluent homes tend to have such a marked edge over those from deprived homes that the iniquitous consequences of these arrangements are unlikely to be eliminated.
- 29. If human resources development efforts are to pick up momentum in developing countries, the revenue situation of these countries has to be eased and they also have to allocate more resources for nutrition, health and education, at the expense especially of military expenditure, which is quite substantial in several developing countries. 12/ The resumption of growth in Africa and Latin America would facilitate the provision of larger resources for human resources development.

Table 7. Central government expenditure on health as a percentage of total expenditure

| Developing countries       | 1972        | 1987            |
|----------------------------|-------------|-----------------|
| Africa                     | <del></del> |                 |
| Botswana                   | 6.10        | 7.44            |
| Burkina Faso               | 8.20        | 5.22            |
| Ethiopia                   | 5.70        | 3.56            |
| Ghana                      | 6.30        | 8.28            |
| Kenya .                    | 7.90        | 6.08            |
| Malawi                     | 5.50        | 5.90            |
| Mauritius                  | 10.30       | 7.56            |
| Могоаао                    | 4.80        | 3.04            |
| Nigeria                    | 3.60        | 0.78            |
| Tunisia                    | 7.40        | 5.93            |
| Jganda                     | 5.30        | 2.39 a/         |
| Zambia                     | 7.40        | 4.71            |
| <u>Naia</u>                |             |                 |
| Indonesia                  | 1.40        | 1.47            |
| Republic of Korea          | 1,20        | 2.35            |
| Malaysia                   | 6.80        | 4.80            |
| Myanmar                    | 6.10        | 4.95            |
| Nepal                      | 4.70        | 4.42            |
| Pakistan                   | 1.10        | 0.88 <u>a</u> / |
| Philippines                | 3.20        | 4.57            |
| Singapore                  | 4.50        | 3.59            |
| Sri Lanka                  | 6.40        | 5.42            |
| Thailand                   | 3.70        | 6.08            |
| leatern Asia               |             |                 |
| Iran (Islamic Republic of) | 3.60        | 6.05 A/         |
| Kuwait                     | 5.50        | 7.60            |
| Dman                       | 5.90        | 4.76            |
| Syrian Arab Republic       | 1.40        | 1.55            |
| Latin America              |             | <del></del>     |
| Argentina                  | 0.00        | 2.12            |
| Bolivia                    | 6.30        | 1.89 g/         |
| Brazil                     | 6.70        | 9.51            |
| Chile                      | 8.20        | 6.31            |
| Costa Rica                 | 3.80        | 19.34 g/        |
| El Salvador                | 10.10       | 7.38            |
| Mexico                     | 5.10        | 1,27            |
| Panama                     | 15.10       | 16.71           |
| Peru                       | 6.10        | 5.77            |
| Uruquay                    | 1.60        | 4.77 a/         |
| Venezuela                  | 11.70       | 10.02 g/        |

Source: IMF, Government Finance Statistics Yearbook, vols. VII and XIII, 1983 and 1989.

a/ 1986 data.

## C. Allocation within each sector of the economy

- 30. Patterns of allocation within each sector of the economy also affect the outcome of human resources development policies. The World Bank estimates that on average 70 to 85 per cent of the total expenditure on health in developing countries is devoted to curative care, between 10 to 20 per cent is spent on preventive care and the remaining 5 per cent to 10 per cent is spent on public health services such as mosquito control and health education. 13/
- 31. Government health budgets are heavily biased towards urban hospital-based care. It has been estimated that urban hospitals, usually serving a small proportion of the public, consume 70 per cent of government expenditure on health. 14/ In Brazil, for example, almost 80 per cent of the national health budget goes to hospital care in urban areas, mainly in the south of the country, while rates of illness and infant mortality in the north-east are among the highest in the world. The Niger devotes 50 per cent of the government health budget to hospital services in urban areas, 40 per cent to provincial facilities in main towns, and only 10 per cent to rural areas, where 80 per cent of the population lives. 15/ An alternative pattern of expenditure where more resources would be spent on preventive and community services would help reduce morbidity and mortality rates much faster, as has happened in several developing countries, including China, Costa Rica and Sri Lanka.
- 32. In education, the problem is the allocation of resources among different levels of education. A high proportion of expenditure on education at the tertiary level, when literacy rates are very low, perpetuates a low level of human resources development in the population, while a small proportion of the population benefits. Countries where rates of literacy and enrolment at primary level are low but which still spend large proportions of their current education expenditure on higher education include Guinea, Madagascar, Mali, Haiti, Bangladesh and Pakistan (see A/45/137-E/1990/35, sect. II.F). Twenty-two per cent of West Africa's education budget is reported to be allocated for higher education to benefit two per cent of the relevant age group. 16/
- 33. At some stage in the development of the education system of a country, it becomes distinctly necessary to expand tertiary education. The necessity for this arises from the fact that graduates of tertiary institutions comprise teachers at both tertiary and other levels. In that sense the output of tertiary institutions assumes the nature of a machine tools industry, which is necessary to raise the output of other capital equipment which help produce consumer goods. However, a persistently excessive output over long periods of time from tertiary institutions cannot be justified on these grounds.
- 34. A more rational allocation of resources would significantly contribute to raising the levels of literacy in these countries. Considerations of equality, accountability and mechanisms for the distribution of resources between and within the different levels of education are high on the educational and political agenda of several developing countries. 17/

- 35. In the allocation of resources in education, more than 90 per cent of the current expenditure is often devoted to teachers' wages. In low-income countries, expenditure on teaching materials is reported to be less than 3 per cent of current expenditure. In the Central African Republic, the average student-to-textbook ratio was between 10 and 20 to 1. In Brazil in the early 1980s, only 23 per cent of all schools had received a grade one textbook. In the Dominican Republic fewer than 20 per cent of eighth grade students in public schools had mathematics textbooks. In the Philippines in 1983 only 32 per cent of grade five science teachers used textbooks frequently. 16/
- 36. In the provision of health services, the comparable competition is between medical personnel, equipment and drugs. Expensive drugs tend to crowd out inexpensive yet commonly required drugs for the treatment of widely prevalent illnesses. Reductions in import capacity during the 1980s in many developing countries have made these situations even more severe than earlier. A more rational allocation of reduced resources could raise levels of efficiency in human resource development significantly.
- 37. Economic crises and successive cuts in government expenditure have contributed to a marked decline in living condition of all including teachers. In Mexico, teachers lost about 40 per cent of the purchasing power of their wages from 1979 to 1984. In Peru, teachers lost 35 per cent of theirs between 1974 and 1980 and in Bolivia teachers lost 65 per cent between 1980 and 1985. 18/ In the Philippines, the Government recently doubled teachers' salaries, notwithstanding which they may yet not receive a wage sufficient to pull them above the official poverty line. some African countries, the salaries of teachers, like those of other government employees, have not been adjusted for inflation and have decreased substantially in real terms over the last 5 to 15 years, and in more and more countries they are paid late. Teachers at all levels have become more concerned with making a living than with teaching. Some take up a second or a third job. In urban areas, teachers open up small enterprises; in rural areas, they spend more time on their farming plots. Consequently less time is spent on preparing for classes and on correcting homework, contributing to a growing lack of efficiency in educational institutions.
- 38. The policies and practices in several developing countries have led to a pattern of public expenditure on human resources development that benefits those in higher income brackets more than those in the lower. It is reported that in Chile, Costa Rica, the Dominican Republic and Uruguay people in the top one fifth of the income distribution received more than 50 per cent of the subsidies for higher education, while the poorest one fifth received less than 10 per cent. There is also evidence from China, Peru, and Senegal that the distribution of their health services were highly skewed in favour of those living in urban areas. 19/ These outcomes are very much determined by the relative strength of competing groups in the formulation of economic and social policy. More publicly accountable and participatory forms of governments will help ensure that glaring disparities do not persist long.

#### III. INTERNATIONAL SUPPORT MEASURES

#### A. Aid

39. As shown in table 8, developed donor countries, intergovernmental organizations and other agencies devote about one quarter of their aid to activities promoting human resources development. Among developed countries, except Canada and Sweden, there was a marked increase in the proportion of resources allocated to human resource development between 1975-1976 and 1986-1987. Indeed, the Development Advisory Committee (DAC) of the Organisation for Economic Co-operation and Development (OECD) has perceived human resources development to be central in development co-operation strategies and has recognized that assistance for human resource development enjoys widespread public support in developed countries. 20/

Table 8. DAC countries and multilateral organizations: share of human resources development in total aid commitments, 1975-1976 and 1986-1987

(Percentage)

| Countries and institutions         | 1975-1976 | ucture <u>a</u> / | Food aid     |             |  |
|------------------------------------|-----------|-------------------|--------------|-------------|--|
| Counciles and Institutions         | 19/5-19/6 | 1986-1987         | 1975-1976    | 1986-1987   |  |
| Total DAC countries                | 19.9      | 24.7              | 12.7         | 5.4         |  |
| Australia                          | 17.5      | 28.6              | 9.2          | 6.7         |  |
| Austria                            | 7.4       | 33.8              | -            | 1.6         |  |
| Belgium                            | 4.9       | 44.1              | 2.9          | 2.0         |  |
| Canada <u>b</u> /                  | 16.5      | 9.0               | 20.6         | 12.9        |  |
| Denmark                            | 14.0      | 21.2              | 3.4          | 0.6         |  |
| Finland <u>b</u> /                 | 10.9      | 31.9              | 7.3          | -           |  |
| France                             | 53.7      | 41.6              | 1.1          | 0.8         |  |
| Germany, Federal Republic of       | 23.4      | 32.8              | 3.1          | 3.1         |  |
| Ireland                            | _         | 40.3              | 2.1          |             |  |
| Italy                              | 14.0      | 20.6              | <del>-</del> | -<br>5.8    |  |
| Japan                              | 3.3       | 15.4              | 0.5          | 1.3         |  |
| Netherlands                        | 34.6      | 23.7              | 1.6          |             |  |
| New Zealand                        | 14.5      | 36.0              | 5.5          | 2.0         |  |
| Norway                             | 22.9      | 34.4              |              | 0.6         |  |
| Sweden                             | 22.2      | 15.9              | -<br>8.4     | 1.9         |  |
| Switzerland                        | 12.3      | 16.5              | 10.6         | 0.5         |  |
| United Kingdom                     | 4.7       | 22.5              |              | 5.8         |  |
| United States                      | 8.1       | 20.2              | 29.5         | 1.2<br>14.0 |  |
| World Bank                         | •••       | 16.9              |              | _           |  |
| IDA                                | • • •     | 21.3              |              | _           |  |
| EEC                                | • • •     | 12.3              |              | 11.5        |  |
| United Nations agencies <u>b</u> / | •••       | 26.8              |              | 20.7        |  |
| Other agencies                     | • • •     | 14.9              |              | 20.7        |  |
| Fotal multilateral                 | • • •     | 17.6              |              | 3.1         |  |
| Overall total                      | • • •     | 21.3              |              | 4.3         |  |

Source: OECD: 1989 Report. Development Co-operation in the 1990s. Efforts and Policies of the Members of the Development Assistance Committee, p. 213, table 9.

 $<sup>\</sup>underline{a}$ / Education, health, population, water supply and sanitation and planning and public administration.

b/ 1986 data.

### B. Education abroad

- 40. Among the most fruitful means of international support for human resources development in developing countries is the enrolment of students from developing countries in centres of learning in developed countries. This is all the more necessary to developing countries where higher education institutions are yet to begin and where teachers need to be either imported from or trained in institutions abroad. Where the number of specialists in a discipline required in any developing country is small, it is more economical to train the few at a centre of learning in another country than to set up the expensive equipment and import the necessary teachers from abroad.
- 41. In 1987 the number of students enrolled in tertiary-level educational institutions in their home country was about 57 million (see table 9). Some 886,000 were enrolled in similar institutions abroad, roughly 1.5 persons in foreign institutions for every 100 persons in domestic institutions. This ratio variedly widely among countries: in developed countries 0.77 persons in foreign institution for every 100 in domestic; in developing countries, 2.6 for every 100.
- 42. African and Western Asian developing countries rely especially heavily on foreign countries for the education of their students at the tertiary level. While only 5 out of 24 countries in Latin America and the Caribbean and 6 out of 21 countries in South and East Asia have more than 10 students enrolled abroad for every 100 enrolled at home, that is the case for all but 7 of the 42 countries in Africa and all but 4 of the 14 in Western Asia.
- 43. In general, the smaller the population and the number enrolled in domestic institutions, the higher the ratio of students enrolled abroad because a certain minimum number of students is required to set up a functioning multidisciplinary system with the potential to provide satisfactory education. However, there are marked differences among countries in the ratio of students abroad to the domestic student population. For example, New Zealand had 52,000 students in the domestic universities and 1,370 or 2.6 abroad for every 100 at home, whereas Malaysia had 48,000 students at home and 40,000 abroad, 84 students for every 100 at home. Students abroad comprised 4.2 and 13.2 per 100 of the domestic student populations of 32,000 and 26,000 in Honduras and Sri Lanka, respectively. In Jordan, there were 88 students studying in foreign countries for every 100 of the domestic student population of 28,000.
- 44. Of all students enrolled abroad in tertiary-level institutions 46 per cent were from Asia, 18 per cent from Africa and 28 per cent from developed countries.
- 45. Four countries, the United States, France, the Federal Republic of Germany and the United Kingdom, host about 65 per cent of all foreign students, with more than 350,000 or almost 40 per cent studying in the United States. Developing countries account for 72 per cent of all students studying abroad a disproportionately high share given that they provide only about 50 per cent of all students enrolled at universities. Taking into account that tuition and living costs abroad, especially in developed countries, are significantly higher than in developing home countries, developing countries need to explore more actively the feasibility of educating and

training each others' students at less cost than in developed countries. This may be one of the more productive opportunities for co-operation among developing countries. In addition to more efficient resource use, such co-operation may help reduce the severity of the problem of highly educated people not returning to their countries of origin. It may also help in making better use of the potential of universities in developing countries not only for education, but also for providing additional capacity for research and other activities in support of development within these countries. Co-operative action among developing countries on a regional basis may provide a mass of students sufficient to make feasible thriving centres of higher learning.

Table 9. Students enrolled in tertiary-level education institutions in home country and abroad, 1987 or latest available year

| Region and country or area | Home co | untry | Abro | oad | Students abroad<br>per 100 of those<br>in home country |
|----------------------------|---------|-------|------|-----|--|
| World                      | 57 124  | 693   | 886  | 188 | 1.55   |
| Developing countries       | 24 637  | 933   | 637  | 402 | 2.59   |
| Africa                     | 1 878   | 143   | 161  | 931 | 8.62   |
| Algeria                    | 203     | 529   | 13   | 366 | 6.57   |
| Angola                     | 4       | 493   | 1    | 323 | 29.45  |
| Benin                      | 8       | 870   | 2    | 231 | 25.15  |
| Botswana                   | 2       | 378   |      | 565 | 23.76  |
| Burkina Faso               | 4       | 498   | 1    | 358 | 30.19  |
| Burundi                    | 3       | 266   |      | 606 | 18.55  |
| Cameroon                   | 19      | 588   | 7    | 897 | 40.32  |
| Central African Republic   | 2       | 754   | 1    | 247 | 45.28  |
| Chad                       | 1       | 991   | 1    | 000 | 50.23  |
| Congo                      | 11      | 800   | 3    | 110 | 28.25  |
| Côte d'Ivoire              | 19      | 660   | 3    | 965 | 20.17  |
| Egypt                      | 790     | 399   | 11   | 504 | 1.46   |
| Ethiopia                   | 29      | 253   | 4    | 974 | 17.00  |
| Gabon                      | 4       | 089   | 1    | 072 | 26.22  |
| Ghana                      | 16      | 350   | 2    | 506 | 15.33  |
| Guinea                     | 5       | 923   | 1    | 156 | 19.52  |
| Kenya                      | 21      | 756   | 3    | 770 | 17.33  |
| Lesotho                    | 2       | 339   |      | 251 | 10.73  |
| Liberia                    | 5       | 095   |      | 916 | 17.98  |
| Libyan Arab Jamahiriya     | 30      | 000   | 2    | 016 | 6.72   |
| Madagascar                 | 36      | 269   | 4    | 169 | 11.49  |
| Malawi                     | 3       | 979   |      | 551 | 13.85  |

Table 9 (continued)

| Region and country or area       | Home | COL | intry | Abro | oad | Students abroad<br>per 100 of those<br>in home country |
|----------------------------------|------|-----|-------|------|-----|--|
| Mali                             |      | 5   | 536   | 2    | 131 | 38.49  |
| Mauritania                       |      |     | 407   | 1    | 816 | 33.59  |
| Mauritius                        |      | 1   | 589   | 2    | 154 | 135.56   |
| Morocco                          |      | 212 | 151   | 29   | 426 | 13.87  |
| Mozambique                       |      | 2   | 335   |      | 260 | 11.13  |
| Niger                            |      | 3   | 317   |      | 924 | 27.86  |
| Nigeria                          |      | 208 | 051   | 14   | 063 | 6.76   |
| Rwanda                           |      | 2   | 029   |      | 765 | 37.70  |
| Senegal                          |      | 16  | 048   | 3    | 686 | 22.97  |
| Sierra Leone                     |      | 1   | 809   |      | 883 | 48.81  |
| Somalia                          |      | 15  | 672   | 1    | 539 | 9.82   |
| Sudan                            |      | 37  | 367   | 10   | 188 | 27.26  |
| Swaziland                        |      | 2   | 172   |      | 249 | 11.46  |
| Togo                             |      | 7   | 456   | 1    | 952 | 26.18  |
| Tunisia                          |      | 43  | 797   | 10   | 746 | 24.54  |
| Uganda                           |      | 11  | 037   | 1    | 092 | 9.89   |
| United Republic of Tanzania      |      | 5   | 070   | 1    | 592 | 31.40  |
| Zaire                            |      | 40  | 878   | 5    | 991 | 14.66  |
| Zambia                           |      | 8   | 768   | 1    | 243 | 14.18  |
| Zimbabwe                         |      | 20  | 167   | 1    | 678 | 8.32   |
| South and East Asia              | 14   | 314 | 858   | 251  | 826 | 1.76   |
| Afghanistan                      |      |     | 509   |      | 698 | 9.70   |
| Bangladesh                       |      | 462 | 265   | 3    | 451 | 0.75   |
| Bhutan                           |      |     | 288   |      | 57  | 19.79  |
| China                            | 2    | 064 | 900   | 65   | 885 | 3.19   |
| Fiji                             |      | 2   | 344   | 1    | 256 | 53.58  |
| Hong Kong                        |      | 76  | 844   |      | 717 | 32.17  |
| India                            | 5    |     | 700   |      | 462 | 0.47   |
| Indonesia                        |      |     | 162   | 15   | 172 | 1.55   |
| Lao People's Democratic Republic |      | 5   | 322   |      | 717 | 13.47  |
| Malaysia                         |      | 105 | 964   | 40   | 324 | 38.05  |
| Myanmar                          |      | 165 | 000   |      | 495 | 0.30   |
| Mongolia                         |      | 39  | 072   |      | 278 | 0.71   |
| Nepal                            |      | 54  | 355   |      | 991 | 1.82   |
| Pakistan                         |      | 99  | 309   | 8    | 892 | 8.95   |
| Papua New Guinea                 |      | 6   | 397   |      | 365 | 5.71   |
| Philippines                      | 1    | 973 | 182   | 5    | 691 | 0.29   |
| Republic of Korea                | 1    | 548 | 772   | 29   | 384 | 1.90   |
| Singapore                        |      | 35  | 192   | 8    | 894 | 25.27  |

Table 9 (continued)

| Region and country or area    | Home co | untry      | Abro | oad        | Students abroad<br>per 100 of those<br>in home country |
|-------------------------------|---------|------------|------|------------|--|
| Sri Lanka                     | 61      | 628        | 3    | 461        | 5.62   |
| Thailard                      | 1 026   |            |      | 674        | 0.94   |
| Viet Nam                      |         | 701        |      | 962        | 4.33   |
| Western Asia                  | 1 030   | 800        | 128  | 557        | 12.48  |
| Bahrain                       | 4       | 180        | 1    | 864        | 44.59  |
| Democratic Yemen              | 3       | 645        | 1    | 278        | 35.06  |
| Iraq                          | 183     | 608        | 5    | 979        | 3.26   |
| Iran (Islamic Republic of)    | 219     | 332        | 35   | 535        | 16.20  |
| Israel                        |         | 608        | 5    | 653        | 4.77   |
| Jordan                        |         | 553        | 25   | 084        | 41.42  |
| Kuwait                        |         | 521        |      | 177        | 16.37  |
| Lebanon                       |         | 510        |      | 045        | 21.34  |
| Oman                          |         | 152        |      | 515        | 116.87   |
| Qatar                         | _       | 347        |      | 052        | 19.67  |
| Saudi Arabia                  |         | 924        |      | 411        | 5.66   |
| Syrian Arab Republic          |         | 933        |      | 081        | 8.79   |
| United Arab Emirates<br>Yemen |         | 640<br>055 |      | 893<br>990 | 24.78<br>33.15   |
| <u>Mediterranean</u>          | 888     | 221        | 33   | 549        | 3.78   |
| Cyprus                        | 4       | 247        | 10   | 884        | 256.28   |
| Malta                         | 1       | 447        |      | 227        | 15.69  |
| Turkey                        | 534     | 459        | 17   | 161        | 3.21   |
| Yugoslavia                    | 348     | 068        | 5    | 277        | 1.52   |
| Western hemisphere            | 6 526   | 703        | 61   | 539        | 0.94   |
| Argentina                     | 902     | 882        | 3    | 053        | 0.34   |
| Barbados                      | 5       | 227        |      | 658        | 12.59  |
| Bolivia                       | = :     | 022        |      | 773        | 1.83   |
| Brazil                        | 1 470   |            |      | 744        | 0.46   |
| Chile                         |         | 338        |      | 128        | 1.39   |
| Colombia                      |         | 623        |      | 692        | 1.31   |
| Costa Rica                    |         | 585        |      | 299        | 1.81   |
| Cuba                          |         | 225        | 1    | 550        | 0.59   |
| Dominican Republic            |         | 748        |      | 891        | 0.72   |
| Ecuador                       |         | 594        |      | 707        | 0.61   |
| El Salvador                   |         | 024        | 1    | 384        | 1.87   |
| Guatemala                     | 51      | 860        |      | 988        | 1.91   |

Table 9 (continued)

| Region and country or area          | Home | cou            | ntry       | Abr | oad        | Students abroad<br>per 100 of those<br>in home country |
|-------------------------------------|------|----------------|------------|-----|------------|--|
| Company                             |      | _              | 220        |     | 710        | 20.04  |
| Guyana<br>Haiti                     |      |                | 328<br>289 | •   | 718<br>956 | 30.84<br>31.10   |
| Honduras                            |      | 37             |            |     | 368        | 31.10  |
| Jamaica                             |      | 12             |            |     | 587        | 21.46  |
| Mexico                              | 1 .  | 311            |            |     | 174        | 0.62   |
| Nicaragua                           | 4    | 26             |            |     | 672        | 9.94   |
| Panama                              |      | 62             |            |     | 140        | 3.44   |
| Paraguay                            |      | 33             |            |     | 342        | 1.03   |
| Peru                                |      | 472            |            | 3   | 896        | 0.82   |
| Trinidad and Tobago                 |      |                | 939        | 3   | 045        | 61.65  |
| Uruguay                             |      | 91             | 580        |     | 568        | 0.62   |
| Venezuela                           | •    | 467            | 371        | 5   | 206        | 1.11   |
| Developed countries                 | 32   | 486            | 760        | 248 | 786        | 0.77   |
| Developed market economies          | 24   | 946            | 604        | 237 | 164        | 0.95   |
| Other developed countries           | 16   | 988            | 408        | 70  | 077        | 0.41   |
| Australia                           | :    | 389 '          | 734        | 2   | 762        | 0.71   |
| Canada                              |      | 277            |            | 19  | 262        | 1.51   |
| Japan                               |      | 398            | -          | 22  | 798        | 0.95   |
| New Zealand                         |      | 105            |            |     | 373        | 1.30   |
| South Africa                        |      | 419            |            |     | 956        | 0.71   |
| United States                       | 12 ; | 398 (          | 000        | 20  | 926        | 0.17   |
| <u>Europe</u>                       | 7 9  | 958            | 196        | 167 | 087        | 2.10   |
| Austria                             |      | 188            |            |     | 856        | 3.11   |
| Belgium                             | _    | 254            |            |     | 690        | 1.45   |
| Denmark                             |      | 118 (          |            |     | 879        | 1.58   |
| Finland<br>France                   |      | 139 3          |            |     | 226        | 3.75   |
|                                     |      | 327 :<br>579 ( |            |     | 305<br>867 | 1.00   |
| Germany, Federal Republic of Greece |      | 3/9 (<br>197 : |            |     | 049        | 1.57<br>17.21  |
| Iceland                             |      |                | 599        |     | 004        | 42.65  |
| Ireland                             |      | 70 3           |            |     | 835        | 4.03   |
| Italy                               | 1 3  | 141            |            |     | 478        | 1.62   |
| Luxembourg                          |      |                | 343        |     | 709        | 439.98   |
| Netherlands                         | 3    | 399 7          |            |     | 980        | 1.75   |
| Norway                              |      | 104 2          |            |     | 160        | 5.91   |
| Portugal                            | 1    | 103 5          | 585        | 4   | 711        | 4.55   |

Table 9 (continued)

| Region and country or area          |   | Home country |     |    | oad | Students abroad<br>per 100 of thos<br>in home country |
|-------------------------------------|---|--------------|-----|----|-----|---|
| Spain                               |   | 954          | 005 | 10 | 310 | 1.08  |
| Sweden                              |   | 184          | 324 | 3  | 350 | 1.82  |
| Switzerland                         |   | 121          | 693 | 4  | 324 | 3.55  |
| United Kingdom                      | 1 | 068          | 386 | 15 | 354 | 1.44  |
| USSR and Eastern Europe             | 7 | 540          | 156 | 11 | 622 | 0.15  |
| Albania                             |   | 23           | 784 |    | 225 | 0.95  |
| Bulgaria                            |   | 135          | 852 |    | 789 | 0.58  |
| Czechoslovakia                      |   | 170          | 550 | 1  | 298 | 0.76  |
| German Democratic Republic          |   | 437          | 919 |    | 781 | 0.18  |
| Hungary                             |   | 99           | 025 | 1  | 148 | 1.16  |
| Poland                              |   | 458          | 585 | 5  | 029 | 1.10  |
| Romania                             |   | 157          | 041 |    | 719 | 0.46  |
| Union of Soviet Socialist Republics | 6 | 057          | 400 | 1  | 633 | 0.03  |

Source: Department of International Economic and Social Affairs, based on UNESCO Statistical Yearbook 1989 and national sources.

## C. Transnational corporations

- 46. Transnational corporations with operations in developing countries possess a number of advantages in helping human resources development: a global perspective, enabling them to respond rapidly to technological changes world wide; a leading role in technological innovation; and resources for training in many skills. Transnational corporations bring new equipment as well as management and other professional skills. Local participation in these activities results in a transfer of knowledge that contributes to human resources development.
- 47. Some 7 million people from developing countries are employed in transnational corporations, about 1 per cent of the work-force. 21/ About 2 million among them are young women who are generally employed for about five years in assembly type industrial activities for which they receive or acquire very little skill. At the other end of the spectrum, a few people in professional and managerial activities receive training in the facilities and offices of the parent company. The number so trained is necessarily low. However, there is much scope for transnational corporations to contribute to the development of human resources, especially in countries where standards of general education are high.

### D. Intergovernmental organizations

- 48. Both individual Governments and intergovernmental organizations have given substantial weight to the development of human resources in developing countries by providing resources, by undertaking the analysis of comparative of experience and by helping to concentrate the attention of policy makers on particularly urgent questions of far-reaching importance.
- The World Summit for Children, held on 29 and 30 September 1990, sponsored by the United Nations Children's Fund, the United Nations Development Programme, the United Nations Educational, Scientific and Cultural Organization and the World Bank, is only the most recent of the meetings at which one of the major concerns of human resources development will be discussed. The World Conference on Education for All (Jomtien, Thailand, 5 to 9 March 1990) brought together a large spectrum of social forces mobilizing world opinion for the cause of education. At the regional level, Governments highlighted the importance of human resources development in Africa in the Khartoum Declaration: Towards a Human-focused Approach to Socio-economic Recovery and Development in Africa (A/43/430, annex I); in Asia, in the Jakarta Plan of Action on Human Resources Development, adopted by the Economic and Social Commission for Asia and the Pacific; and in the Caribbean, in the communiqué of the 10th meeting of the Conference of Heads of Governments of the Caribbean Community (Grand Anse, 3-7 July 1989). The United Nations Development Programme in its Human Development Report 1990 has brought together an instructive assessment of the comparative experience in some components of the human resources development in developing countries. The World Bank in the World Development Report 1990 discussed poverty as a special subject and has brought out the significance of human resources development policies in reducing poverty. The Economic and Social Commission for Asia and the Pacific has undertaken an analysis of the problems of human resources developments in that region. 22/

#### IV. CONCLUSION

- 50. The view that human resources development is both a source of immediate gains in human well-being and a crucial means of expanding the productive capacity of economies has gained wide acceptance in recent years. In developing countries, there is a demonstrable waste of human resources due to early death, recurring and disabling sickness and illiteracy and an obvious need for the acquisition of a variety of new skills, for which education is essential. Although over the long term striking progress has been made in human resources development in developing countries as a whole, the decade of the 1980s was marked by stagnation and reversals in many countries, especially in Africa and Latin America. A Tresh start on human resources development in developing countries is essential to raise both current and future standards of well-being.
- 51. The major reasons for the reversal in trends has been economic stagnation, largely due to international conditions that include the negative net flow of capital to developing countries during most of the decade, low and falling terms of trade for major exports from developing countries and wrenching pains of adjustment to a rapidly changing global economy.

- 52. The development of human resources in developing countries, however, also depends to a very large extent on the policies of those countries themselves. The allocation of adequate resources for human resources development is essential, but much can also be gained by re-allocating currently available resources. Such re-allocation has to take into account both equity and efficiency. The trade-offs will be politically sensitive and not always very clear, but it would seem that human resources development would in most developing countries stand to gain from an allocation of more resources for primary education at the cost of tertiary and secondary education, more resources for primary health care at the expense of curative medicine, and more resources for adequate nutrition and satisfactory hygiene for those in demonstrable need at the expense of those most politically vocal. The needs of women and rural areas require special attention.
- 53. In the allocation of resources for human resources development, the search for equity is of special importance, not only for its own sake but for its long-term contribution to growth. As good health and skills are themselves assets that yield incomes, a distribution of human resource benefits on the same patterns of the ownership of physical and financial assets in highly stratified societies would have highly ossifying effects. Such poor distribution would restrain social mobility and contribute both to individual misery and social upheaval. Therefore, methods of financing broad access to human resource benefits are of crucial importance. Exclusive or heavy reliance on private financing would contribute to the perpetuation of the existing sharp inequities. Governments must mobilize the larger proportion of resources for human resources development.
- 54. Voluntary organizations including churches also make essential contributions. People whose incomes are high enough should pay for services. Equitable financing will be difficult to achieve when political forces oppose it. Those with wealth and who earns high incomes often receive subsidies that are paid for by those in less affluent conditions. Changes of such conditions are necessary.
- 55. Since large volumes of resources are allocated for human resources development in developing countries, efficiency in their use is important. The close association among improvements in nutrition and health and progress in school points to the need for considering policies in these areas in tandem. Poor learning and high rates of drop out due to ill health reduce the efficiency of resource use in education. Healthy individuals with no education and skills will continue to be poorly productive. Attention to the supply of complementary requisites such as teaching materials in educational institutions and drugs and equipment in health institutions adds to the productivity of people working in them. Better management practices and greater accountability to consumers have been shown to be conducive to higher productivity.
- 56. While many of the necessary improvements in policies and programmes for human resources development are domestic, international measures can be highly supportive. Relief from the restricting constraints of external resources availability would be especially important. The availability of opportunities for students from developing countries to study in centres of learning in developed countries is essential. International institutions also help by undertaking comparative analyses of human resources development policies and by drawing the

attention of the world public and the political leadership to the importance of and opportunities for human resources development in their economies. Closer analysis of patterns of resource allocation, cost structures and management practices in developing countries would contribute to the improvement of human resources development policies in those countries.

#### Notes

- 1/ Sanjaya Lall in "Human resources development and industrialization, with special reference to sub-Saharan Africa" (Journal of Development Planning, No. 19, 1989, Sales No. E.89.II.A.2, pp. 129-158) concludes that "... none (in Africa), is, for the time being, likely to achieve the kind of industrial development achieved by the newly industrialising countries of East Asia, whatever the policies pursued; the base of industrial capabilities is simply too restricted". The development of industrial capabilities is, by and large, a function of human resources development.
- 2/ G. Griffin, <u>User charges for health care in principle and in practice</u>, EDI Seminar Paper No. 37, World Bank, 1988.
- 3/ Financing health services in developing countries, an agenda for reform.

  A World Bank Policy Study (World Bank, Washington, D.C., 1987).
- 4/ Eva Jasperson, Restructuring Social Expenditures Towards the Poor: A review of options, UNICEF, 1987.
- 5/ "Health policy and planning", <u>Journal of Health in Development</u>, vol. 3, No. 2, June 1988.
  - 6/ World Bank, World development report 1990 (Washington, D.C., 1990), p. 43.
  - 7/ UNDP, Human development report 1990 (New York, 1990), p. 35.
  - 8/ World Development Report 1989, p. 78.
- 9/ G. A. Cornia, R. Jolly and F. Stewart, Adjustment with a Human Face, vol. I (UNICEF, 1987).
  - 10/ WHO, Traditional medicine and health care coverage, 1983.
- 11/ UNESCO, "Development of Private Enrolment, First and Second Level Education, 1975-1985", CSR-E-57 (ST--89/WS/4), Paris, May 1989, tables 2 and 5 and annex tables I and II.
- 12/ Human development report 1990, pp. 76-77. Also see World Development Report 1990, and Keith Griffin and John Knight, "Human Development: The case for renewed emphasis", Journal of Development Planning, No. 19, 1989 (Sales No. E.89.II.A.2), pp. 20-21.
  - 13/ World Development Report 1990, p. 77.

### Notes (continued)

- 14/ John Akin and Nancy Birdsall, "Financing of health services in LDCS", Finance and Development, June 1987, p. 41.
  - 15/ UNICEF, The State of the World's Children 1990, (New York 1990).
  - 16/ World Development Report 1990, p. 79.
- 17/ See Federal Republic of Nigeria, <u>Governments Views and Comments on the Findings and Recommendations of the Political Bureau</u> (Lagos: Federal Republic of Nigeria, 1987); and Ministry of Education, <u>Challenge of Education a Policy Perspective</u> (New Delhi: Ministry of Education, 1985).
- 18/ François Caillods and T. Neville Postlethwaite, "Teacher/learning conditions in developing countries", Prospects Quarterly Review of Education, vol. XIX, No. 2, 1989 (70), pp. 170-171.
  - 19/ World development report 1990, pp. 77-79.
- 20/ Organisation for Economic Co-operation and Development (OECD):

  Development Co-operation in the 1990s. 1989 Report. Efforts and Policies of the Members of the Development Assistance Committee. Paris, 1989, pp. 54-99.
- 21/ United Nations, <u>Transnational Corporations in World Development</u> (New York, 1988) ST/CTC/89.
- 22/ See United Nations, Economic and Social Survey of Asia and the Pacific 1986 (United Nations publication, Sales No. E.87.II.F.1).