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The Population Bulletin of ECWA is concerned with providing a medium for the exchange of knowledge, scientific information and technical data related to population and development issues in the Arab World.

Information for Contributors

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- Articles should be written in either English or Arabic.
- Manuscripts should be typed double-spaced and submitted in duplicate.
- Articles should include a short abstract of the most important issues and findings (not to exceed 100 words).
- A complete list of references is required.
- References within the text should include the last name of the author, the date of publication, and in case of direct quotations the page number.
- Figures should be drawn in india ink on white paper. Tables should, also, be typed on a separate piece of paper.
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ABSTRACTS

Amman Declaration on Population in the Arab World

This document was adopted by the Regional Population Conference in the Arab World, which was held in Amman, Jordan during the period 25-29 March 1984. It represents the joint position of the Arab countries with respect to population issues, and reflects the regional point of view that will be taken by the countries of the region at the International Population Conference in Mexico this summer.

The Declaration includes four main parts, namely, a preamble, general principles, objectives and recommendations concerning the following population issues:

- development strategies and population policies
- the components of population policy
- data, research, exchange of information and training
- Arab co-operation
- international co-operation

Ishaq Yakub Al- Qutub. Towards a Strategy for Urbanization in the Arab World

The aim of this study is to examine the main issues involved in urban growth as well as the characteristics of current trends in urbanization. It also purports to project the main features of a strategy for urbanization in the Arab World for the next two decades. On the assumption that the trends and characteristics of urbanization in a particular region can be examined much more effectively if considered in

a world wide context, the study begins with a brief review of world trends in urbanization. In its approach to urbanization in the Arab countries, the study further considers the relation between population growth and urbanization and elaborates on degrees of urbanization in the Arab World as well as disparities stemming from different economic and social conditions. Having dwealt upon the relation between urbanization and the size of cities, particularly primate cities, the study concludes by enumerating some of the major problems of urbanization common to all Arab countries. Finally it draws attention to certain considerations to be taken into account and policies to be pursued, even if only on an empirical basis, in future urban planning in the Arab countries.

Sahir Abdel-Hadi. Some Theoretical Points on Fertility Determinants

Data on 94 developing countries have been utilized to examine the respective roles of socio-economic development and family planning programmes in influencing fertility decline. The data and analysis show that although family planning programmes have a significant independent effect over and above the effect of socio-economic development, yet factors related to the latter have a substantial and direct influence on family planning programmes and an indirect influence on fertility decline. The analysis also suggests that the combination of socio-economic development and family planning programmes represent the most effective instrumentality for achieving change in fertility trends.

Musa Samha. Shifts in the Demographic weights of Jordanian Cities: 1952-1979

This study discusses the problem of rapid urbanization and unorganized migration to cities in Jordan. It investigates the political and social causes and factors leading to the sort of problems in urbanization faced by Jordan, e.g. escalation of growth, disproportionate distribution of population between urban and rural areas, quickening growth rate of certain primate cities at the expense of smaller towns. In conclusion, the study recommends that the problems of rapid growth and imbalanced population distribution be taken into fuller account in the formulation and implementation of development plans. It also underscores the importance of pursuing a policy of decentralization with regard to big cities, of a more equitable distribution of economic investments and service institutions with a view to promote better living conditions for a larger number of small and medium-size cities, thus relieving in the long-run, the two big cities from the continued population pressure.

Othman Al-Hassan M. Nour. The validity of fertility trends from retrospective data: Jordan

This paper examines the extent of reporting errors in the birth histories of the 1976 Jordan Fertility Survey, in an attempt to establish a better understanding of fertility trend. The analysis of marital fertility by birth cohorts provides convincing evidence that there are omissions of live births

and that there is event misplacement (earlier events are pushed toward the interview date). However, for the decade preceding the survey, events seem to be correctly reported and the analysis shows that marital fertility rates remain fairly constant (at a high level) except for a modest decline among older women.

AMMAN DECLARATION ON POPULATION IN THE ARAB WORLD *

INTRODUCTION

Like the countries of the Third World, the Arab countries were subjected to exploitation and suffered from various manifestations of backwardness as a result of foreign domination, since attaining independence, the countries of the Arab World have diligently attempted to remedy the adverse efforts of the colonial era on their socio-economic structure and to bring about a cultural revival with a view to meeting the basic requirements of socio-economic development, enabling the Arab people to take part in shaping the present and future destiny of their countries, and contributing to the endeavour made by the international community in its quest for peace, progress and prosperity.

In its efforts to achieve this goal, the Arab World is experiencing socio-economic changes and facing challenges and danger which make it necessary to mobilize the endeavours, capabilities and potential of society and to satisfy the basic needs of the population.

In this context, the population question constitutes a primary factor the dimensions of which are determined by those challenges and dangers. During the last three decades, the Arab region has undergone tremendous demographic changes manifested in various forms including remarkable population growth. The population of the Arab World increased from

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* Original Arabic

about 132 million in 1974 to about 180 million in 1984 and this figure is expected to rise to over 250 million by the end of the century.

As a result of this rapid and continuous increase in the population, it was imperative to formulate appropriate plans and policies to meet their basic human needs in regard to employment opportunities, education, health, food and public utilities. The region has also witnessed a huge wave of manpower migration among its various countries and also to countries outside the region. Consequently, the population question is closely linked to the economic and social aspects of development issues and requirements in their global context.

With a view to approaching the population question within the framework of interrelated national development implications, the Arab governments welcomed the convening of the World Population Conference due to be held in Mexico in the summer of this year and, in preparation therefore, sent delegations to the Regional Population Conference in the Arab World at Amman in the Hashemite Kingdom of Jordan from 25 to 29 March 1984.

On the basis of the principles, objectives and guidelines formulated at the Regional Population Conference in the Arab World in connection with the population question, the delegations of the participating Arab States hereby issues the following declaration:

1. Preamble

The Regional Population Conference in the Arab World

Recalling the provisions of the Charter of Arab Economic Action promulgated at the Eleventh Arab Summit Conference, held at Amman in 1980, by theArab Kings and Heads of States who expressed therein their conviction that the Arab people were both the instrument and the objective of development.

Committed to the Charter of the League of Arab States and the statutes of its specialized organization and councils, as well as by the principles, objectives and policies set forth in Arab conventions and sectoral strategies.

Mindful of the Charter of the United Nations and the mandates of its specialized agencies and regional commissions aimed at promoting humanitarian causes, guaranteeing human freedoms and needs, and fulfilling the basic requirements and conditions for a better life for mankind as a whole,

Affirming the Arab responsibility for the achievement of over-all Arab development, collective self-reliance, the enhancement of productivity and the satisfaction of the social, material and spiritual needs of the Arab People,

Aware of the effects of international economic relations on over-all development in the Arab countries, of the importance of population size in freeing these relations from dependence, and of the consequent emphatic need for socio-economic integration in the Arab World.

Recognizing the magnitude of the challenges and dangers facing the Arab nation as a result of fragmentation, dependence, and the ruthless colonial attacks, expansion ambitions and forced migrations in which theZionist entity is engaged.

Confident of the ability of theArab people to overcome those challenges and dangers once the appropriate requirements are fulfilled for their active and effective participation in development endeavours,

Emphasizing that efforts to fulfil those requirements necessitate a comprehensive review of development strategies and past achievements and, in particular, an appraisal of the human development endeavours and population situations and policies in the countries of the Arab World,

Considering that, in spite of the efforts made, the achievements of the past decade with regard to population policies and human development in the Arab World have fallen short of the aspirations expressed in the objectives established by the World Population Plan of Action adopted at Bucharest in 1974,

Convinced that the many new circumstances and changes observed in the countries of the Arab World during the last ten years make it necessary to consider the formulation of an Arab plan of action for population policies in the coming decade,

Conscious of the fact that, notwithstanding the disparities between population policy priorities in the countries of the Arab World, there is an imperative need for the formulation of a clearly defined Arab population policy to ensure the optimum

utilization and distribution of human resources within the context of a comprehensive and integrated development strategy.

Taking into account the principles and objectives of the World Population Plan of Action adopted at Bucharest in 1974, and the achievements made in the Arab World,

Establishes general principles for population policies;

Defines future objectives for action in the light thereof;

Submits recommendations conducive to the achievement of those objectives and to the fulfilment of their requirement as regards programmes, projects and means.

General Principles

1. The improvement of human condition is the starting point for development endeavours aimed at the achievement of a high standard of social well-being in the Arab World.

2. Since the family is the basic nuclear unit of society, all appropriate measures should be taken to preserve its integrity, to protect its values and cohesion, to ensure the proper upbringing of its children and to provide its members with opportunities for a decent life.

3. An integrated approach to the population question requires consideration of its various dimensions such as size, growth rates, geographic distribution and population characteristics. This approach must take full cognisance of the fact that those four population dimensions are interdependent and,

consequently, should not be treated separately as isolated aspects in any population policy since they are all influenced by the processes of reproduction, mortality and internal and external migration.

4. The population question is closely interrelated to socio-economic issues, the cultural milieu and development endeavours. Population variables are determined in response to a broader social environment. The prevailing socio-economic and cultural circumstances condition the manner in which individuals view the principal demographic processes and, consequently determine population dimensions. Population variables in turn influence the social environment at the national, regional and global levels.

5. As a result of the diversity of demographic features and the varying relationship between population and the socio-economic situation in the Arab World, the population problem is regarded in a different light in each Arab country. This accounts for the variety of population policies in the countries of the Arab World at the present stage, although it is hoped to reconcile these policies within the framework of a comprehensive Arab concept of population policy.

6. In view of the differing circumstances in the Arab countries, emphasis should not be placed on family planning programmes as the sole means to reduce population growth throughout the Arab World, nor should such programmes be regarded as the corner-stone for the formulation of a population policy to be implemented in conjunction with policies required for socio-economic development.

7. Arab countries which adopt a policy of reducing population growth rated as a means to alleviate constraints on development, may formulate socio-economic policies designed to reduce reproduction rates, by, inter alia, encouraging family planning. However, the optimum degree of success achievable by family planning programmes in the reduction of reproduction rates will be determined by the relevant socio-economic circumstances which condition the reproductive behaviour of couples. The creation of circumstances favourable to the reduction of birth rates to the progress of development efforts in enhanced forms and at higher levels than those currently prevailing and in a manner that transcends their mere linear extension in future.

8. The practice of birth control by couples is a human right guaranteed by international convenants Family planning also has a clearly beneficial effect on the health of the mother and family life. The Arab countries should endeavour to safeguard this right by providing facilities for the dissemination of knowledge and effective means for the practice of family planning on the basis of free choice. However, the extent to which this right may be exercised will remain dependent, as in the case of other human rights, on the type of the desired development and the extent of accomplishments achieved in the countries of the Arab World.

9. The acute population problems in the countries of the Arab World may be mitigated or completely eliminated if they are tackled from a pan-Arab standpoint through the formulation

of an Arab population policy based on current circumstances and aimed at solving the population problems of individual countries within a general development in a pan-Arab context. Such a policy would constitute a pan-Arab framework for the population policies of individual Arab countries.

10. Comprehensive Arab development depends on the attainment of appropriate levels of economic growth and social progress, including: a steady and sustained increase in production and productive capabilities through optimum utilization of material and human resources, in a manner consistent with country and pan-Arab objectives, with a view to the achievement of equitable distribution, the provision of employment opportunities and the satisfaction of the basic needs of the Arab people.

11. The effective tackling of current population problems in the Arab World through sustained development requires an effort to achieve liberation from dependence on the industrialized countries and from the burden of exploitation to which the region is subjected by international monopolistic forces. Consequently, the Arab World needs to adopt a strategy of collective self-reliance and to co-operate closely with the countries of the Third World in order to resist the proclivity towards dependence on transnational corporations and international financial cartels.

12. The industrialized countries should adopt policies aimed at the achievement of better formulas for improving the equilibrium between the size of the population and the resources of this planet by reducing

their enormous expenditure on armaments and curtailing their excessive and wasteful consumption of the resources of the entire world. Such measures would be of greater efficacy with regard to the conservation of resources, the preservation of the environment and the achievement of a higher standard of well-being for all mankind than a call for the reduction of population growth in the Third World.

III. Objectives

13. The formulation of an integrated Arab population policy to serve as a framework for country population policies, and the establishment of measures for its implementation in order to:

(a) Counteract the methods used by the Zionist entity to force Arab to emigrate from the occupied territories:

(b) Regulate the movement of manpower among the Arab countries in such a way as to increase the development benefit for both the Arab country of origin and the Arab host country and to give priority to Arab labor in the Arab labor-receiving countries;

(c) Achieve a better long-term distribution of population among the Arab countries in order to maximize development potential in the Arab World through the integration of human and natural resources in a manner conductive to the achievement of Arab security.

14. The formulation and implementation of integrated population policies in the countries of the Arab World within the context

of development and of the Arab population policy with a view to:

(a) The achievement of appropriate population growth rates; which implies birth rates consistent with the desired growth rates, in conjunction with the maximum possible reduction of mortality rates, particularly with regard to infants and children;

(b) The achievement of a geographic distribution of population in keeping with development requirements through the curtailment of urban growth, particularly in the poverty belts surrounding cities, the reduction of migration from rural and small urban areas to the major urban agglomerations, and the development of human settlements establishment in uninhabited areas, and in new residential localities possessing economic production centres and social service institutions;

(c) The regulation of migration for permanent settlement in the countries of the Arab World in a manner consistent with the Arab population policy.

15. The assignment of special priority to the improvement of population characteristics within the general framework of population policy and development imperatives, and the adoption of measures to ensure the enjoyment by the population of the basic level of food security, particularly as regards strategic food supplies, to achieve a better distribution of incomes and to provide the commodities and public services needed to improve the standard of living of productive and underprivileged population.

IV. Recommendations

In the light of the principles contained in this Declaration, and with a view to the achievement of the objectives set forth therein, the Arab Governments are invited to act in accordance with the following guidelines:

Development strategies and population policies

16. Adoption of the principle of comprehensive planning based on a clear conception of population policy and of the manner in which socio-economic conditions and cultural factors might affect the course of a given population system and in which the said system might affect the structure of those conditions.

17. Planning designed to meet the basic needs in respect of employment education, health, food, housing, clothing and social security by the year 2000 and the pursuit, in each of these sectors, of a demographic course of action conducive to the achievement of the objectives of an integrated population policy and the provision of an appropriate minimum level of family income.

18. Fulfilment of the basic requirements needed to enable the Arab people to manifest their productivity and creativity by ensuring opportunities for popular participation in development endeavours, promoting individual and public freedoms and the inter-linking of rights and obligations.

19. The creation of conditions and possibilities conductive to the advancement of women and the promotion of their effective participation in development endeavours by, inter alia:

(a) Increasing the contribution of women with regard to work in societal activities at all administrative levels and in all technical fields in order to promote equality between men and women while, at the same time, securing the conditions and services needed to enhance this contribution:

(b) Further the economic potential of women by according them special consideration with regard to education training, eradication of illiteracy and employment opportunities in the formal and non-formal sectors of the economy;

(c) Encouraging participation by women in all aspects of public life, including their participation at decision-making and executive levels.

20. Adoption of the principle of efficiency manifested in maximizing production, and the principle of social justice when formulating and implementing development plans in such a way as to improve productivity and give priority to the distribution of the benefits of development among all social categories, ensuring a greater share thereof for the less privileged groups.

21. Assignment of priority to integrated development including the improvement of methods of production, the improvement of basic services, stabilization of the rural population in their

areas of residence, equitable distribution of national income, the linking of industrialization strategies to agricultural development and the adoption of appropriate forms of manpower utilization in application of the principle of full employment of the labor force.

22. Rational utilization of natural resources and allocation of their proceeds to the development process with a view to ensuring appropriate standards of living for future generations and safeguarding their rights to the benefits accruing from those resources.

23. Taking measures to develop the national technological capabilities and to adopt a rational approach to the transference of technology with a view to its adaptation to the needs of Development in the Arab World.

24. Adoption of measures to regulate the movement of manpower and capital among the countries of the Arab World in such a way as to increase the benefits resulting from Arab developing endeavours.

25. Promotion of co-operation with countries of the Third World and continuation of the dialogue with industrialized countries in all fields of development, including the population field in its broad sense, with a view to the establishment of a new international division of labor and an equitable international economic order.

The Components of population policy

(a) Reproduction

26. Creation of a favourable socio-economic environment for the achievement of birth rates consistent with the desired population growth rates through development endeavours and the pursuit of general policies designed to guide the reproductive behaviour of couples.

27. The formulation, by Arab Governments wishing to reduce fertility rates, of population guidelines for their development plans with a view to encouraging couples to have a small number of children by expanding education, enhacing the status of women, increasing the participation of women in organized economic activity, reducing infant mortality rates, providing social security and making family planning services accessible to couples wishing to avail themselves thereof.

(b) Mortality

28. Provision of healthservices for all citizens in keeping with the principle of health for all by the year 2000, with emphasis on preventive as well as curative health services, supply of suitable food and potable water, and creation of favourable environment for healthy human development, with a view to ensuringthat citizens enjoy a longer life expectancy at birth.

29. The granting of special priority to the provision of primary health care services in remote areas and for poorer social groups deprived thereof.

30. Provision of food and health care for pregnant women, and encouraging mothers to adopt the method of natural breast-feeding due to its beneficial effect on the health of both mother and child.

31. Dissemination of education and health awareness among the various groups of the population, particularly in rural areas and poorer urban districts, as an important contribution towards primary health care, using all educational and information facilities to that end.

32. Devotion of a special effort to the eradication of contagious and endemic diseases and to the promotion of theoretical and applied research in this connection.

(c) Internal migration and geographic distribution

33. Diffusion of production locations in areas far removed from present centres of human agglomeration, within a framework of regional provincial planning, and with a view in the long run to a better distribution of the population throughout the geographic territory of the Arab countries.

34. Furtherance of integrated rural development with a view to achieving population stability.

35. Improvement of the production and human settlement potential of small and medium-size urban centres in order to endow them with the socio-economic vitality needed to retain and expand their population.

36. Establishment of new, carefully planned centres of human settlement with a view to integrating productive and social activities and setting up new projects in currently unpopulated areas in order to reduce population density.

(d) External migration

37. Seeking measures to safeguard the rights and welfare of Arab migrant workers in the industrialized countries, especially the second generation of such workers, and to facilitate the integration of returning workers in their home countries or in the other parts of the Arab World.

38. Submission of claims for appropriate compensation from the industrialized countries in respect of the migration of skilled Arab manpower to work in those countries, and arresting this brain-drain by providing such manpower with genuine opportunities for integration and participation in development in the World.

39. Creation of conditions under which Arab migrant workers would be given preference over their foreign counterparts with regard to employment in the Arab countries and would be integrated into the socio-economic activity of those countries, thereby increasing their contribution to development in the host countries.

Data, research, the exchange of information and training

40. Collection, classification, analysis and dissemination of the statistical data needed for the planning and evaluation of population policies and programmes at specified periodic intervals.

41. Consolidation and strengthening of public census and civil registration systems, organization of sample surveys, and conduct of in-depth studies which are beyond the capabilities of the traditional sources of population data.

42. Compilation of statistics on migration and their dessimination among the Arab countries in order to facilitate human exchanges.

43. Standardization of statistical terminology in the Arabic language and of the timing of census operations and endeavours to introduce uniform statistical classifications.

44. Strengthening the role of theArab Employment Agency in its endeavours to establish a network for the supply of information on Arab labor markets to help in the study of the factors of supply and demand with a view to facilitating and regulating manpower movements in the Arab region.

45. Ensuring the availability of all the technical resources and skills needed for the analysis of demographic data and the conduct of statistical surveys.

46. Intensification of efforts to train specialists at all levels in the collection and analysis of demographic data, and strengthening the role of Arab institutions and organizations in this respect.

47. Promotion of research work in the social sciences linking demography to other fields of scientific knowledge in order to ensure a better understanding of the function of the population factor within the totality of the socio-economic context and to derive the optimum benefit therefrom for the formulation of population policies within the framework of development plans.

48. Encouragement of scientific institutions specialized in population studies to disseminate their research and survey work through the issue of special publications and periodic bulletins and the provision of the necessary facilities for the exchange of such research and survey work.

49. Promotion of the exchange of expertise and visits among persons responsible for research, training and programmes related to population activities in the Arab countries.

50. Inclusion of population education in the curricula of schools, teacher-training institutions and programmes for the eradication of illiteracy and utilization of the information media to disseminate the requisite population knowledge in order to increase levels of awareness by making use of the results of research and studies.

51. Emphasis should be placed on the role of the Arab funds in financing country and regional projects relating to population studies and activities within the framework of development plans and joint Arab action, and in supporting institutions engaged in research and training in statistics and population planning.

52. An Arab labor compensatory fund should be established in the manpower-exporting countries for the purpose of promoting Arab co-operation in the use of resources and as a first step towards the establishment of a similar international fund. Its functions would include payment of the cost of manpower substitution, study of the social consequences and effects of migration on migrants and their families and the

proposal of methods to facilitate their reintegration on their return to their home countries. The Arab Countries should be urged to submit a proposal concerning the establishment of the international Fund to the World Population Conference at Mexico.

53. Arab regional organizations should be requested to collect data and publish statistics and surveys appraising the demographic situation in the sectors falling within their fields of technical specialization in order to help in the formulation of policies, the selection of regional projects, the dissemination of knowledge of population statistics and the provision of the information needed by research workers.

International co-operation

54. It is hoped that international co-operation, within the framework of the United Nations, will continue to provide technical and financial assistance for population activities which further the development endeavours of Member States, and that such co-operation will also continue to promote the exchange of expertise and information among developing countries.

55. Support should be given to the important role played by the United Nations Fund for Population activities in order to enable it to effectively discharge its task of providing assistance in the broad field of population policies, programmes and projects. In the light of the needs resulting from the manifold nature of the dimensions, development requirements and causes of the population question, there is an imperative need to expand

the functions and responsibilities of UNFPA to enable it to meet the increasing number of requests from governments and organizations for assistance in their population policies and programmes and in improving the level of awareness and understanding of population issues in their development context. Accordingly, the United Nations is called upon to take appropriate measures and early follow-up action to this end. States Members of the United Nations are invited to contribute financially to UNFPA in a manner commensurate with the increasing needs of population projects.

56. The United Nations Fund for Population Activities is called upon:

(a) To co-operate further with the Economic Commission for Western Asia and the Secretariat of the League of Arab States in support of their ongoing endeavours to implement regional programmes and projects in the field of population activities;

(b) To expand and develop programmes of technical co-operation with the Arab countries especially with the least developed among them, in order to help them to tackle their population problems, control the causes of those problems and implement their programmes and projects in this respect.

57. Countries providing Israel with support and assistance are called upon to halt such assistance forthwith in view of its highly deterimental effects on the Palestinian people in the occupied Arab territories since it is enabling the Israeli authorities to expropriate further Arab lands, establish Israeli settlement thereon and exert constant pressure on the

Arab population with the intention of rendering their lives more difficult, reducing their employment opportunities and forcing them to emigrate, thereby altering the demographic character of the occupied Arab territories, including the city of Jerusalem.

58. The industrialized countries are urged to reduce their enormous expenditure on armaments and to reach early agreement on issues relating to disarmament. They are also urged to avert the spread of international conflicts to the Arab region and to provide increased aid to meet the requirements of development and population programmes in the developing countries.

TOWARDS A STRATEGY FOR URBANIZATION IN THE ARAB WORLD

Ishaq Y. Al-Qutub*

FORWARD

Sociologists and economists have begun to take a growing interest in the study of the characteristics of urban growth in the developing countries. They have been concerned with ascertaining the specific trends, common denominators and similarities or disparities in the dimensions of urbanization in the developing countries as a whole and in the Arab World in particular. Research workers are also trying to assess the influence of various predominant patterns of urbanization, in an attempt to work out theoretical models that explain the process of urban growth in its historical, economic, religious and political contexts.

The league of Arab States has prepared a compilation of studies on "Urbanization in the Arab World" in which specialists discuss the characteristics and values of urbanization on the basis of both national and regional studies. In addition, the Organization of Arab Cities in 1979 published a book containing studies and reports on the problem of rural migration and its repercussions on urban growth in the Arab countries. Yet, these studies of urbanization lack the common scientific methodology and analytical framework that are needed to clarify the issues entailed in the rapid economic and political transformations which are presently taking place in the Arab countries.

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* Original Arabic.

The aim of this study is to examine the main issues involved in urban growth as well as the characteristics of current trends in urbanization. It also purports to project the main features of a strategy for urbanization in the Arab World. As the contemporary process of urbanization in a particular region is inextricably connected with international economic and political variables and as its trends and characteristics can only be examined properly if considered within the international framework, this study cannot ignore the global context in dealing with issues of urbanization in the Arab World. Urban growth in this region has been and indeed continues to be influenced, both directly and indirectly, by urban growth elsewhere. This has been particularly true during the past two decades. Arab economic development plans and their implementation have been dependent on resources from other countries of the world, particularly in the use of technology for the various sectors of production (industry, petrochemistry, agriculture, fisheries and animal husbandry) and services (health care, education, social security, information, transport, construction, etc.). Most of the development inputs are concentrated in the big towns and primate cities.

WORLD TRENDS IN URBANIZATION

It has been estimated that less than 3 per cent of the world population lived in urban areas in or about the year 1800. By 1920, the proportion had increased to 14 per cent. In 1980, a quarter of the world population was urban, and by the end of this century, it is estimated that more than half

the world population will be living in towns and cities. As a result of urban growth in the next twenty years, the world is expected to undergo profound social, economic and political changes[1/].

Developed and developing countries vary in degree of urbanization, because of economic, social and ideological differences in the social systems of the two sets of countries. The extent of these variations in urbanization is reflected in Table I.

TABLE I. POPULATION AND URBAN GROWTH IN THE DEVELOPED AND DEVELOPING COUNTRIES FROM 1920 TO THE YEAR 2000

(Population in millions)

Region		1920	1940	1960	1980	2000
World	Total	1,860	2,295	2,990	4,325	6,110
	Urban (per cent)	19.3	24.8	33.1	41.1	50.5
Developed countries	Urban (per cent)	39.6	47.9	58.4	70.0	79.0
Developing countries	Urban (per cent)	9.5	14.0	22.9	31.9	42.9

Source: Raghed, Iris, (1969). Patterns of Urban Growth in the Middle East. The City in Newly Developing Countries, G. Breese, (ed.). Prentice Hall, Englewood, N.J. U.S.A.

1/ United Nations Fund for Population Activities. 1981. Populi. Vol. I, No.3.

According to these figures, approximately half the world population will end up living in towns and cities. However, if urban growth rates continue at existing levels, more than three quarters of the world population will be urban by the year 2000. This, no doubt, presents a prospect with serious economic and social implications.

Technology, decidedly a wide spread, continuous and self renewing process, has shaped, and in a large measure, improved the quality of urban life in the developed countries. But cities in the developing countries, especially in the Islamic World, Latin America and Africa, were only supericially touched by the semi-technological methods which were imported from the developed countries. In the former cases, imported technology has not changed the pattern of life and its fundamental quality. In addition, it has helped to concentrate capital in large urban centres in societies with high labour force ratios. This context stimulated the flux of internal migration to the cities at a time when planning to regulate such population movement has not been envisaged. Thus we find a continuous pressure and easy flow of people towards cities which are not prepared to receive them[1/]. Consequently, increasing urban growth in the developing countries is presenting such a burden which in magnitude and problems weighs more heavily than in developed countries. The task of coping with such growth seems beyond available material, human resources and organizational arrangements of the developing countries. Historically speaking, however, urbanization and the emergence of cities

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1/ Ward, Barbara. 1979. "The Explosive Cities". Populi, United Nations Fund for Population Activities. Vol. I, No. 1.

appeared earlier among the developing societies than among the now-developed socities. Yet, the former failed to use the experience acquired at various stages in history to form a tradition or policy which could have enabled them to adjust to the rapid changes in city growth which they are now experiencing. Developing countries will therefore continue to suffer the consequences of rapid urbanization and be cofronted by many of its complex problems. In these countries, cities will experience demographic explosion before they move into the industrial transition.

For the purpose of understanding the size and kind of urban settlements and the degree of discrioency in urbanization between developed and developing countries, it is not enough to examine population distribution among urban and rural settlements, as countries differ a great deal in that respect. However, in order to magnify the urbanization picture it is deemed essential to look at the size and rank of cities, which are considered more meaningful indicators of differences in urban development between nations. Furthermore, the classification of urban conditions in that manner provides guidelines for the planning and distribution of economic and social development programmes and projects, in order to achieve a balance between the requirements of over-all development and urbanization. Distribution of the world's cities and towns in the developed and developing countries and by regions is shown in tableII.

TABLE II. DISTRIBUTION OF CITIES THROUGHOUT THE WORLD BY SIZE IN 1975

(City Population in Thousands)

Size of cities / Regions	4,000	2,000 3,999	1,000 1,999	500 999	250 499	100 249	Total
World Total	20	31	74	143	288	782	1,338
Industrialized countries	10	19	40	88	159	476	792
Developing countries	10	12	34	55	129	306	546
Africa	1	-	3	6	20	53	83
South Africa	4	-	8	12	20	66	110
North America	3	6	9	24	35	96	173
Far East	5	6	17	23	48	102	201
South Asia	2	6	9	15	50	134	216
Europe	4	10	22	37	73	206	349
Oceania	-	2	-	3	2	7	14
Soviet Union	1	1	6	23	40	121	192

Source: World Population Trends and Plicies, 1979, Monitoring. Report. Vol. I UN ST/ESA/SER/SER.a/70.

The table shows the disparity in the number of towns between developing and developed countries. This is because there are more small and medium-size towns in the industrialized countries than in the developing countries. As regards the distribution of metropolises with more than four million inhabitants, the Far East comes first, followed by Latin America and Europe, which share the second place and North America in the third place. Europe, however, comes out on top in the distribution of large cities between 2 and 4 million since it comprises one third of the world's cities in this bracket. The remaining two thirds are distributed among North America, the Far East and South Asia.

A comparison of the various regions as to their respective shares in the distribution of the 125 cities of one million and over, which account for 9.3 per cent of all cities, shows that:

- from a numerical point of view there is not much difference between the industrialized countries (59 cities) and the developing countries (56 cities).

- the regions by order of percentage of towns of at least one million are: Europe (28 per cent), the Far East (22.4 per cent), South Asia and North America (14.4 per cent), Latin America (6.6 per cent), the Soviet Union (6.4 per cent), followed by Africa and Oceania.

It is worth noting here that in 1975, there were 7 Arab cities with a population of 100,000 or more. Of these, six had a population of one million or more, namely, Cairo, Alexandria, Baghdad, Casablanca, Guiza and Damascus. The 66 were divided as follows: 6 with a population of 500,000 and more, 17 with 250,000 and more and 43 with 100,000 and more. This indicates that most Arab cities are small cities, whereby 59.7 per cent of them had population of 100,000-250,000*.

Looking at the distribution of cities and towns among the various regions of the world, we note that the developed countries comprise roughly two thirds of the total (60 per cent), while the share of the developing countries is only (40 per cent). This can be attributed to an increase in the number of small cities (half a million or less) in the developed countries. As to the total number of cities, the European countries come

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* See table 5 in the paragraph dealing with urbanization and the size of cities in the Arab World.

first (26 per cent) followed by the South Asian countries (16 per cent), the Far Eastern countries (15 per cent), the Soviet Union (14 per cent), North America (12.9 per cent), Latin America (8.1 per cent) and Africa and Oceania. The number of cities in the Arab region amounts to 5.2 per cent of the total number of cities in the world.

The population of cities of the world has doubled in the last thirty years and it is estimated to double again in the coming two decades. Cities are vital organisms in the developing world and will continue in their trend of growth. It is also expected that existing institutions, organizations, legislation and administration will remain incapable of meeting urban growing human needs and requirements, both quantitatively and qualitatively, for a period that might extend to a quarter of a century, unless the appropriate action is taken.

In any attempt to understand the process of urbanization and its problems, it is essential to examine the interrelatedness of economicsystems, modes of production, urban growth rates and the distribution and size of towns within the various countries. I is also essential to recognize that investment projects, government spending and municipal budgeting are often conditioned by the size of towns since any increase in the size of the town calls for a corresponding increase in spending and investment to keep pace with its expansion and with the social, psychological, economic, recreational, religious, cultural and other needs of the various social groups of the growing population. An appropriate infrastructure would also have to be set up to cope with the basic task of controlling land use, environment and water pollution in urban communities.

URBANIZATION IN THE ARAB COUNTRIES

POPULATION INCREASE AND URBANIZATION

The study of urban development should take into consideration population dynamics, fertility estimates and population growth or decline rates. In the Arab World, the last half century is marked not only by an increase in population but also by pronounced migration waves from rural to urban areas. The population increase is attributed to various factors. The higher rate of fertility was coupled with a lower rate of mortality. In addition, greater efficiency in keeping records, compiling statistics and registering births and deaths have also contributed the provision of more precise data on the numbers, characteristics and movements of the population. However some countries are still facing a number of difficulties in administering population census and in the registration of births and deaths, particularly in nomadic and rural areas, in which any statistical operation is carried with difficulty. Nevertheless, the statistics referred to in this study reflect to an acceptable degree of accuracy, the developments and growth currently under way in the Arab countries.

The Arab countries are considered to have high growth rates, inspite of disparities among them. These high growth rates appear mostly in the Gulf States, which are heavily dependent on migrant labour. In the Arab demographic situation, certain important issues need to be raised. Would annual growth rates remain at the current level in the various countries, or would there be changes? Would disparities continue within existing proportions, or would they increase or decrease? Are shifts likely to occur with regard to these disparities? What are the economic and social implications of urban growth and patterns of urban settlement?

For assessing the urbanization process in the Arab countries, it is also important to compare the annual population growth rates with the rates of urban growth. In addition, patterns of urban growth can be further understood when population growth rates in principal towns and primate cities are analyzed.

Table III shows the relation between the total population and the percentage of urban population in Arab countries. The table indicates the following:

- The proportion of urban population increased between the year 1950 and 1980 from 25 per cen to 47 per cent. This means that it has almost doubled within 30 years. At this rate, almost 70 per cent of the total population will be urban by the end of the century Such a situation will certainly have a considerable range of consequences and implications, not only in population distribution, but also in patterns and relationships of production, levels of consumption and distribution of services.

- The proportion of urban population various widely from one Arab country to another. In 1980, the upper level in Kuwait was 90.2 per cent and the lowest in Oman 13.1 per cent[1/]. Differences are due to a number of economic and social factors, such as the nature of agricultural and industrial production, the national income, and the nature of the division of labour and ownership and means of production.

1/ In countries where no census was taken, like Oman, estimates of urbanization were calculated indirectly. Yet, some modern estimates in Oman point out that in 1980, the urbanization rate was 20 per cent and over (The Editor).

TABLE III PROPORTION OF URBAN POPULATION* TO THE TOTAL POPULATION IN THE ARAB COUNTRIES IN VARIOUS YEARS

Country	Population in millions	Per cent urban	Population in millions	Per cent urban	Population in millions	Per cent urban	Population in millions	Per cent urban
	1950		1966		1975		1980	
Algeria	8.9	25.0	11.8	39.0	15.6	52.1	18.6	54.2
Egypt	20.5	32.0	30.0	41.2	37.0	43.7	42.0	49.5
Libyan Arab Jamahiriya	1.1	22.0	1.7	25.8	2.4	29.8	2.9	32.7
Mauritania	0.7	2.0	1.0	12.0	1.4	21.7	1.6	23.1
Morocco	9.0	23.0	13.7	30.5	17.3	37.9	20.2	38.2
Sudan	10.0	6.0	14.1	10.6	16.0	13.2	18.3	21.4
Tunisia	3.6	31.0	4.5	40.0	5.6	46.1	6.3	49.3
Somalia	1.8	3.0	2.6	6.0	3.1	16.2	3.6	24.5
Bahrain	0.1	71.0	0.2	74.0	0.2	78.5	0.3	79.1
Iraq	5.2	35.0	8.3	25.5	11.0	62.8	13.0	66.2
Jordan	1.3	25.0	2.0	38.0	2.7	43.0	3.2	53.7
Kuwait	0.2	51.0	0.5	62.0	0.9	88.0	1.3	90.2
Lebanon	1.8	40.0	2.5	56.0	2.8	65.0	3.1	68.1
Oman	0.5	3.0	0.6	7.5	0.8	10.0	0.9	13.1
Qatar	0.0	50.0	0.1	67.0	0.2	77.5	0.2	85.0
Saudi Arabia	5.3	9.0	6.9	23.0	7.1	32.1	8.4	60.2
Syrian Arab Republic	3.4	35.0	5.5	41.0	7.3	46.1	8.6	48.3
United Arab Emirates	0.1	25.0	0.2	50.6	0.6	65.2	0.8	68.7
Yemen	4.0	2.0	5.3	10.1	5.2	16.1	5.9	18.2
Democratic Yemen	0.7	0.0	1.2	26.3	1.6	29.2	1.9	36.3
Gaza	0.2	41.0	0.3	47.1	0.4	52.1	0.4	88.1
TOTAL	75.4	25.0	113.9	36.0	139.6	43.0	162.1	42.2

Source: Ibrahim, Saad El-Din 1974. Urbanization in the Arab World. Population Bulletin, No.7, ECWA.

* In accordance with international standards the term urban refers to dwellers of towns of 20,000 inhabitants or more.

DEGREE OF URBANIZATION IN THE ARAB WORLD

The Arab countries can be classified by degree of urbanization, according to the criterion adopted by Gerald Pierce, with certain adjustments to suit the conditions in the Arab World, into the following categories. Countries characterized by:

a. High urbanization, i.e. at least 50 per cent of the population living in urban areas;

b. Intermediate urbanization, i.e. between 25 per cent and 49 per cent living in urban areas;

c. Low urbanization, i.e. less than 25 per cent living in urban areas.

A. Countries with a High Degree of Urbanization:

These include: Kuwait (90.2 per cent), Gaza (88.1 per cent), Qatar (85per cent), Bahrain (79.1 per cent), U.A.E. (68.7 per cent), Lebanon (68.1 per cent), Iraq (66.2 per cent), Saudi Arabia (60.2 per cent), Algeria (54.2 per cent) and Jordan (53.7 per cent). The majority are oil-producing and oil-exporting countries. They invest oil revenues in economic and social projects,especially in developing infrastructure, institutional building, housing, education, health, information, industrialization, defense, transport, entertainment and other important services. However, most of these institutions and development programmes are concentrated in the principal towns and primate cities. In addition, the importation of the Gulf states of Arab and Asian labour, besides their city-state size accounts for the high annual rates of urban growth, as well as for the increase in the ratio of

urbanization in their primate cities. Furthermore, the high per capita income in these countries (some like Kuwait, Qatar and U.A.E. are among the highest in the world) and the high living standards have contributed to the increase of urbanized facilities and infrastructures.

For Lebanon, before the events of war, it was its international market that rendered it capable of attracting capital for investment in construction, commerce, banking and cultural activities, most of which were also concentrated in the capital Beirut. In Jordan, urban growth can be attributed in large measure to the Palestinian immigration in the aftermath of the 1948 and 1967 wars, and to the immigration from Lebanon since the war events that began in 1975. In addition, Jordan has opened up its economy to the remittances and investments of its citizens/expatriates in the Gulf states. Such investments however, have been mostly confined to Amman the primate city in particular and to the principal towns in general.

B. Countries with an Intermediate Degree of Urbanization

These include: Egypt (49.5 per cent), Tunisia (49.3 per cent), Syria (48.3 per cent), Morocco (38.2 per cent), Lybia (32.7 per cent),and South Yemen (32.3 per cent). One of the common characteristics of these countries is their passing through a rapid transition from agriculture and livestock production to medium and small-scale industrialization. In addition all these countries are experiencing an increase in the rate of internal migration from the rural areas to the cities. It is noted that the exodus from rural areas has been mainly attributed to "push" factors as a result of the diminishing returns of agricultural production, declining incomes, high cost of agricultural and

live-stock production and poor social, health and cultural services. Economic and social development plans have not accorded due priority to the rural areas; thus making it easier for the big cities to lure and pull peasants, who assume that work opportunities in the city are more readily available along with its facilities of city life and technology.

C. Countries with a Low Degree of Urbanization

These include: Mauritania (23.1 per cent), Sudan (21.4 per cent) and North Yemen (18.2 per cent). The common features of these countries lie in their dependence on an agricultural economy, in low growth rates of national income, high rates of illiteracy, birth and mortality.

URBANIZATION AND THE SOCIO-ECONOMIC CONDITIONS

Urbanization in the Arab World is closely connected with the economic, social and cultural conditions in the region. Urban growth is determined mostly by two factors, namely, internal migration and natural population increase, both of which are highly affected by socio-economic conditions. Table IV shows the urbanization rates in some Arab countries and the relation of these rates to some economic and social indicators. It clearly indicates that:

TABLE IV URBANIZATION AND ECONOMIC AND SOCIAL INDICATORS IN SOME ARAB COUNTRIES IN 1975

Country	Percentage of urbanization	Birth rate	Mortality rate	Economically active population per cent*	Per capita in US $	Percentage of illiteracy among men	Percentage of illiteracy among women
Bahrain	68.1	-	-	26.7	1,350	42.0	64.0
Democratic Yemen	33.3	47.5	20.8	26.6	220	52.0	91.0
Egypt	43.7	38.6	12.8	30.5	280	43.2	71.0
Iraq	62.8	47.2	13.0	25.2	1,100	58.5	82.8
Jordan	43.0	46.0	12.8	23.0	430	19.0	45.7
Kuwait	88.6	46.6	4.6	30.6	11,640	32.0	52.0
Lebanon	65.0	32.7	8.4	26.9	1,080	20.0	44.0
Oman	10.0	48.9	18.6	-	1,660	65.0	68.0
Qatar	77.5	-	-	47.2	7,240	65.0	98.0
Saudi Arabia	32.1	48.8	18.3	21.0	2,830	46.5	98.0
Syrian Arab Republic	46.1	45.2	12.9	25.0	560	56.5	76.0
United Arab Emirates	65.2	-	-	53.1	13,500	61.8	61.9
Yemen	16.1	48.3	25.4	25.1	180	38.3	98.4

Source: With some additions from Economic Commission for Western Asia (1977). Population in the West Asia Region, Population Bulletin No. 12.

* Percentage of economically active population (15 years and over) to total population.

a. Crude birth rates in most of the Arab countries are over 45 per thousand. The one exception is Lebanon where birth rates have declined steadily to 32.7 births per thousand as a result of social, cultural and economic factors.

b. The increase in the proportion of people living in urban centers in many Arab countries has not resulted in a decrease in birth rates. This is contrary to the socio-demographic theories that corrolates urbanization with lower birth rates. It must be stressed that urban growth in most Arab countries is a result of migration from rural and bedouin areas. The immigrants carry with them to the city the values of their traditional communities. In the cities they live mostly on its periphery. More often, their assimilation of city ways and values is meagre. In all cases, they either stay away from family planning and birth control programmes or are not exposed at all to them.

It is also important to note here that the policy of some Arab countries is to encourage high birth rates. Some of them such as the Sudan, Syria, the Gulf states and Iraq provide material incentives to families in order to cherich the high birth rate as a social value.

c. Urbanization is inversely related to mortality rates, i.e. the countries with low urbanization rates have high mortality rates, while those with high urbanization rates have low mortality rates. This is due to the obvious advantages of the cultural and social factors facilities and services in cities, including better nutrition, availability of preventive and curative medical services and wider access to education.

d. Urbanization is directly related to high levels of per-capita income. This is especially clear in the Gulf States (U.A.E., Kuwait, Qatar, Saudi Arabia, Bahrain and Iraq), where the production of oil and the investment of its revenues in development projects have led to higher incomes and to an increase in urban concentration. In the Arab states with high per capita incomes, efforts are exerted to provide a better standard of living, better services and developed social institutions. Additionally, the continuous increase in these countries of foreign trade and the improvements in internal and international communication, contribute to the expansion of the primate city, resulting in the emergence of a city-state in certain cases. In states with low per capita income (North and South Yemen), these contributing factors do not exist and the rate of urbanization stays low.

The situation is different in the case of Jordan, Syria and Egypt, where urbanization is high and per capita income is low. These countries are characterized by high fertility rates and by a continuous exodus from rural to urban areas, leading to a steady increase in urbaniztion. Furthermore, the calculated per capita income in these countries is to some extent lower than the actual one. The sources of income are varied in these countries and include, in addition to national production, remittances of workers in Gulf states, of which certain portions are transformed into commodities and personal savings that do not enter national accounts.

e. The relationship between urbanization and illiteracy also varies in different parts of the Arab World. In general, high illiteracy rates, both among men and women, are prevalent

in countries with high urbanization rates. This fact highlights one of the distinctive features of urbaniztion in the Arab countries, namely that a high rate of urbanization in the demographic sense does not necessarily imply a development in the level of urbanization and the quality of life.

On the whole Arab cities today, however impressive their material conditions, continue to harbour several elements of the traditional life as expressed in interpersonal relations, value orientations and cultural characteristics. In other words, at this particular stage of political and economic development in the Arab World, there appears to be a discrepancy between urbanization in the demographic sense and its quality and life-style.

URBANIZATION AND THE SIZE OF CITIES

The number and size of cities depend on a variety of historical, economic, political and social factors. Each country or region has its own historical background and specific circumstances that have contributed to the shaping and development of its cities and decided the functions which those cities would assume. Similarly, each stage in history has its own economic and political characteristics which determine the distribution of production centers and related institutions. The nature and size of produciton and the patterns of consumption have also a role in the distribution of urban centers and in forming their different sizes.

Equally important in determining city-size is the nature of the political system, the degree of centralization or decentralization in its political and administrative set-up in

addition to the presence and scope of national, regional and international institutions and representations. In this connexion, the policy of the colonial powers resorted to the reduction in the number of big cities to the minimum, e.g., to one or two, and to increase the number of small and sporadic settlements for the purpose of exercising better control over the natural and human resources. Indeed, the Arab cities were affected by such policies. In the period after independence, the Arab countries were not able to achieve administrative and political decentralization, and thereby achieve the desired urban balance either in terms of a viable size of cities or in improving the quality of urban life.

It is worth noting at this point, that because of the ever increasing problems of population density in the cities and capitals of the Arab World, the bulk of public spending has been directed (excluding armements and the armed forces) to the development and improvement of urban population and in order to meet its rising needs, e.g., for education, health services, social security, social services, information, housing, public amenities, recreation, religious services, reduciton of pollution. Urban slums and shanty towns spreading around the major cities and capitals continue to stand a challenge to many endeavours in city planning and slum clearance.

As mentioned earlier, continued urban growth is a resultant of the concentration of cultural, social, scientific and administrative institutions in big cities, thereby presenting further attraction for the immigration of people living in the rural areas. To understand the extent of the problem of the imbalance in urban growth itself, it is revealing to look at

TABLE V POPULATION OF CAPITAL CITIES AND CITIES OF 100,000 AND MORE INHABITANTS

Country/City	Population
Algeria 1966	
Alger	903,530
Annaba	152,006
Constantine	243,558
Oran	327,493
Democratic Yemen 1977	
Aden	271,590
Egypt 1976	
Alexandria	2,317,705
Aswan	144,654
Assyut	213,751
Beni-Suef	117,910
Cairo	5,074,016
Damanhur	170,633
El-Mahalla El-Kubra	292,114
Fayum	166,910
Giza	1,230,446
Ismailia	145,930
Kafr-el-Dwar	146,248
Mansura	259,387
Menia	146,366
Port Said	262,760
Shebin-el-Kom	102,805
Sohag	102,914
Shubra-el-Khema	394,223
Suez	193,965
Zagazig	202,375
Iraq 1965	
Baghdad	1,490,759
Basra	310,950
Kirkuk	175,303
Mosul	264,146
Najaf	134,027

TABLE V--Cont'd

Country/City	Population
Jordan 1979	
Amman	648,587
Irbid	112,964
Zarqa	215,687
Kuwait 1975	
Kuwait	322,624
Lebanon 1970	
Beirut	474,870
Tripoli	127,611
Libyan Arab Jamahiriya 1964	
Bengazi	137,295
Tripoli	213,506
Mauritania 1976	
Nouakchott	134,986
Morocco 1973	
Casablanca	1,371,330
Fez	321,460
Kenitra	135,960
Marrakech	330,400
Meknes	244,520
Oujda	155,800
Rabat-Sale	435,510
Safi	129,100
Tanger	185,850
Tetouan	137,080

TABLE V--Cont'd

Country/City	Population
Saudi Arabia 1974	
Dammam	127,844
Hufuf	101,271
Jeddah	561,104
Mecca	366,801
Medina	198,186
Riyadh	666,840
Ta'if	204,857
Somalia 1972	
Mogadiscio	230,000
Sudan 1980	
Elobied	118,000
Juba	116,000
Kassala	149,000
Khartoum	561,000
Khartoum North	249,000
Medani	153,000
Omdurman	454,000
Port Sudan	205,000
Wa'w	116,000
Syrian Arab Republic 1979	
Aleppo	919,244
Damascus	1,156,000
Hama	197,804
Homs	325,724
Kattajua	204,000
Tunisia 1966	
Tunis	468,997
Yemen 1975	
Sana'a	134,588

Source: UN, Department of International Economic and Social Affairs, 1981. Demographic Year Book (Special Topic: Natality Statistics).

the number and size of cities and to note differences in size between big and small cities in the Arab World.

By looking at table V, which shows the size of Arab cities with a population of 100,000 and over, we note the following:

a. There are six cities with a population of one million or more, namely, Cairo (about 5 m.), Alexandria (about 2.3 m.), Baghdad (about 1.5 m.), Casablanca (about 1.4 million), Giza about (1.2 m.) and Damascus (about 1.1 million).

b. A total of 63 cities have a population of at least 100,000. These cities are not distributed evenly between the various Arab countries. The biggest number is found in Egypt (16 cities), Morocco (9 cities), Saudi Arabia (7 cities), Algiers, Iraq and Syria (4 cities each). The other Arab countries have three or less such cities.

c. It is obvious from this table that one primate city always dominates the other cities of the country. Usually, primacy is for the capital city. With the exception of Morocco, all Arab countries have capitals that are by far bigger in size than the other cities. This situation constitutes on one hand a dilemma from the point of view of urban planning and policy decisions concerned with achieving a balance between urban and rural growth and between big, medium and small cities. On the other hand, however, big cities usually have the advantage of playing a significant role in the modernization of a country and in generating political, economic and social change. Primate cities, also, help in attracting domestic and foreign investments.

However, investments that are concentrated in primate cities, induce their continuous and disproportionate growth as a result of the demand for manpower from different occupations and from various levels of skills. This in turn leads to an influx of newcomers requiring more services in educaiton, health care, housing and public amenities. Cities are thus caught up in a vicious circle which will continue to get worse year after year. Providing the necessary resources and institutions which would solve this problem is not easy, and until this is achieved, cities will continue to suffer from their population pressures.

RAPID URBAN GROWTH AND ITS EFFECTS

Arab cities are growing continuously. One study[1/] pointed out that in the sixties, the annual growth rate of 15 Arab cities was between 18 per cent for the city of Kuwait and 3.7 per cent for the city of Beirut. since the thirties some cities like Beirut, Amman and Baghdad have increased their population by 10 times. They now hold between 20 per cent to 30 per cent of the total population of the country. Data also indicate that the number of migratns to the city, particularly to the primate, has been much more than that leaving it.

The problems caused by this continuous urban growth are not confined, as stated earlier, to the increasing pressure on the educational and social services as well as on housing and public amenities. In fact, the influx to the cities of people who are not accustomed or adjusted to city life has contributed to the various symptoms of urban disfunctionning of anti-social and abnormal psychological nature.

1/ Abu-Lughod, Janet, (1972). Urban Problems in the Middle East, UN Document No. STM UNESOB-M9.

On the other hand, according to Janet Abu-Lughod[1/], internal migration has its advantages for the Middle Eastern countries. She considers it as a necessary condition for economic growth and conducive to the realization of the national objectives of social justice and national integration. However, it might be acceptable to maintain that in some measure, the rural and nomadic migration to the cities has advantages in as much as it would reduce unemployment in the rural areas and rendering available human resources to the development projects in industry, trade and services in the urban areas. But the pattern and magnitude of the current migration in the Arab World are not organized in a manner that would attract excess labour from rural areas to where employment opportunities exist in the cities, leaving behind the labour force needed to ensure vertical and horizontal agricultural development. What is actually happening is different. Rural areas are losing their youthful human resources, including skilled craftsmen, experienced agricultural workers and the potential labour force capable of acquiring skill and learning technology for rural development activities.

In a nut-shell, the present pattern of urban growth is leading to the development of the city, and in particular the primate cities at the cost of depleting the resources needed for agricultural production. This trend of migration has a further negative result of migration where its contribution

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1/ Abu-Lughod, Janet. Ibid.

to the volume of the comsumption far exceeds its effect on production. In fact, most migrant workers are employed in activities characterized by lower productivity such as construction, house work, cleaning, messangers, peddlers and personal services. Increasing consumption habits exacerbates the pressure on local food production and forces the country to resort to excessive food imports, and thereby increasing the dangers involved in providing the necessary condition for food security.

The declining productivity of rural labour force contributes to higher agricultural production costs which, in turn, results in declining rural incomes. The chain reaction further forces villagers to seek seasonal employment in addition to their work in agriculture, or engage partially in agricultural activities. Furthermore, migration in Egypt, Jordan, Tunisia, Morocco, Sudan, Democratic Yemen and North Yemen has witnessed a rising trend among rural population towards sending young men to work in cities or abroad in order to secure an additional source of income. Meanwhile, the problem of the declining rural labour force has not been counterbalanced by modernizing agriculture and animal husbandry through appropriate technological applications. The dilemma of agricultural development is evidenced by those Arab countries which were formerly exporters of agricultural products such as cotton, wheat and grains and which have recently become net importers.

Reasons for the concentration of the population in big cities can be traced to the highly centralized forms of government whereby services, as well as political economic, educational, recreational and information institutions are located in the capital. Beirut, Amman and Baghdad for instance, have increased in size more than ten times since the 1930s. They comprise between 20 and 30 per cent of the total population in their respective countries. In each, one finds over 50 embassies and consulates, about 90 per cent of the banks, lawyer offices, 80 per cent of the engineers, 75 per cent of the doctors and 60 per cent of all commercial and industrial enterprises[1/].

The predominance of the city is also attributed to the lack of integrated economic and social development planning at the national and regional levels, and to the absence of productive and industrial enterprises in rural areas. The adoption of these measures would play a vital role in promoting the achievement of a better balance towards a population distribution, and improvement in social conditions for different social classes, as well as in other demographic characteristics.

Primate-city dominance in the Arab World poses a number of problems which vary from one country to another. Nevertheless, there are a number of common problems; the most salient are the following:

1/ Abu Aianah, Fathy. (1980). Primate Cities in the Arab World. Population Bulletin, ECWA No. 19.

1. Primate cities are developing in large measure without prior planning; the need is becoming imperative for designing integrated development plans with a long-term perspective for these cities including suburban plans aimed at achieving modernization without sacrificing the city's special identity and historical heritage. Industrial areas and other work centres should be planned with due consideration given to the distance and commuting time that separates them from housing locations. Such planning should cater for the renovation and development of technological infrastructure in terms of public transport, telephone and electricity lines, water and sewage pipes, and the like. It should also avoid or at least reduce the continuous digging of trenches for the purpose of laying cables or pipes, which is a common sight along the main roads of many Arab cities.

2. Housing is the main problem in many primate cities. The demand for bachelor-flats and accommodation for newcomers has outgrown the capacity of housing enterprises. In fact, there is shortage in many cities for all categories of accommodation. Slums and shanty towns on the outskirts of the cities, according to some studies,[1/] accommodate between 30 and 50 per cent of the population in some Arab capitals where the population density in some areas is over 24,000 persons to the square kilometer.[2/]

1/ Ibrahim, Saad Al-Din. (1980). Primate Cities.

2/ Abu-Aianah, Fathy. (1974). Urbanization in the Arab World.

Moreover, small factories repair shops, workshops and garages are moving into the residential areas. Health conditions are deteriorating in many areas due to a number of problems, including lack of garbage collection, atmospheric pollution resulting from the proximity to housing areas of airports, vehicle exhaust, railways, and bus stations to housing areas, and ineffective draining system for waste water and rain water which blocks traffic and pedestrians during the rainy months. Nevertheless, it should be noted here that the standard of cleanlines services in urban areas vary according to the material resources available to public authorities and private citizens.

3. Optimization of land use, particularly in the primate cities has yet to be achieved. In this respect, there is constant clash of interests between the private and public sectors, particularly in countries where most of the economic activities are undertaken by the private sector. Decision making bodies and authorities in power with respect to land usage must adopt a rational approach in planning and legislation, as well as in administrative measures for land management. The progressive aim should be to provide basic amenities, to preserve the cultural heritage, to develop the city's Arab and Islamic identity, to arrange for parks and recreational facilities for all age groups near the residential areas and to protect the urban environment against pollution. Plans should also envisage new industrial and residential areas with a view to easy access to communication and transport and other infrastructural requirements.

Many Arab cities are facing difficulties in finding sufficient land for development projects, such as schools, hospitals and government offices, within the city itself. This can be attributed to the traditional patterns of city development such as traditional housing and street layouts. The pattern of economic activities and the political and administrative set-up have also a role in the prevailing irrationality of land use. The situation is further complicated as a result of the fact that a vast amount of land, in some of the Arab cities, is owned by certain categories of economic and political groups, business men and old landlords. These factors have led to the existence of unused land in some cities as their owners are awaiting to sell them at the highest price with the passage of time or through government compensations or other devious ways of land speculation.

4. International migration has been playing an increasingly important part in urban growth throughout most of the Arab World and particularly in the oil-producing countries. It has affected the social structure of cities by introducing agglomerations of migrants with different backgrounds and representing a diversity of cultural minorities. Immigrant workers, particularly in the oil-exporting countries, arrive with their families and settle in areas already inhabited by their fellow countrymen, leading to the creation of closed foreign quarters. Furthermore, immigration has affected the ecological structure of some cities through the construction of provisional camps to accommodate immigrant

workers either in the vicinity of projects or in the outskirts.[1/]

PLANNING FOR A STRATEGY OF URBANIZATION IN THE ARAB WORLD

After the foregoing review of urbanization and its related problems in the Arab World, it is essential to note that in spite of the historical and economic changes through which Arab society has passed and which affected urban development differently in the different countries, a comprehensive strategy for urbanization in the Arab World is still lacking. The Arab countries share common cultural, social and economic conditions as well as common aspirations for the future. Furthermore, it is essential, at this stage, that they should seriously consider joint action in this connexion in order to meet the challenges of modernization that are affecting the growth of Arab cities and to develop effective means of controlling the unregulated present trends. Cities should not be left to grow piecemeal, without planning and direction, into undesirable environments, or into disorganized human settlements devoid of a sense of identity or a reasonable pattern of order and stability.

On the basis of previous discussion, considerations that might be taken into account and policies that might be pursued when planning for future urban development in the Arab countries are summarized as follows:

1/ Abu-Lughod, Janet.(1981). Charcteristics of the Urbanization Process in the Arab Region. paper prepared for the Conference on Population Distribution in the Arab World.

(a) The Islamic and cultural heritage is an important factor in reviving the identity and sense of belongingness in Arab human settlements. The city with its architecture and lay-out has a role to play in this respect. It is important, therefore, to develop an architectural school of thought that meets the needs of the present stage of development in the Islamic communities by way of integrating authentic Arab-Islamic styles with contemporary technological architectural designs.

(b) In the big cities, the old and underdeveloped quarters, which accommodate a sizeable portion of the population, need special attention. It is well known that these quarters together with vulnerable social groups (e.g., poor families, youth immigrants) suffer among other things from shortages in employment opportunities and services. Endeavours to solve the problems of these quarters is of primary importance for the proper over-all development of the city if social cohesion and stability is to be enhanced in the urban community life.

(c) The big city is an integral part of the whole society and its socio-economic integration with the smaller towns and rural and bedouin settlements in the country should be carefully considered in any comprehensive urban planning aiming at solving the problems that have accumulated from the current trends.

(d) Pressures on cities and their negative effects can be reduced by planning diversified urbanization patterns. This should involve the selection of programmes and projects

that lead to the development of new urban centres and enhances the dynamism of small and medium-size cities.

(e) To minimize the continuing flow of migration to the city it is essential to accord higher priority to agricultural development, agricultural marketing, rural industries and rural services. Development of the rural areas should also help in minimizing the miseries of unemployment in the cities. In relative terms, the social and individual cost of unemployment in the rural set-up is considered to be much less than in the urban centres.

(f) economic development planning must ensure that industry is spatially distributed between big cities, small cities and rural settlements. Such planning must also provide cities with a productive base including required infrastructure for industry and other production activities. Sufficient allocations whether from oil revenue, remittances from abroad or from domestic savings, should be made available to increase resources for the production sectors. In short, various integrated measures should be taken to transform the Arab city from a preponderately consumer beneficiary into an increasingly productive participant.

(g) Legislation and administrative regulations governing the real estate market and land use, need to be revised, with a view to assist municipalities and other local authorities in their endeavour to plan and implement adequate urban development.

(h) Municipalities should develop scientific guidelines for urban development plans, conduct studies concerned with urbanization and continuously evaluate on-going projects and programmes. For this purpose, the municipalities must establish close ties with private and public sector enterprises, investment institutions, economic establishments, training centres, universities and research and planning institutes.

(i) Demographic policies related to population distribution between urban and rural areas represent an important basis for general development planning as well as urban planning. These policies should be developed in the light of available demographic trends of birth, fertility and death rates. Furthermore, these policies should draw upon comparative studies of urbanization in the Arab World, its interrelationships with different economic and social conditions.

(j) Decision-making regarding the future of urbanization and balanced urban growth should be arrived at through administrative and planning institutions in an inter-disciplinary approach including specializations in the fields of administration, politics, sociology, psychology, health and economics. For this purpose, it is essential to develop an institutional framework, which would act, inter-alia, as an agent through which it is possible to exchange experiences, ideas and studies concerned with the various aspects of urbanization including its demographic and developmental components. Such a framework would assist planners and policy-makers in a city to communicate with each other as well

as with **administrators** in other Arab cities and with urban planners and researchers in developed and developing countries. It would also be entrusted with mointoring the trends of urban growth and providing guidelines for its direction with a view to meeting the basic human needs of both urban and rural communities and in an integrated perspective of over-all sustained development.

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SOME THEORETICAL POINTS ON FERTILITY DETERMINANTS

By

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INTRODUCTION

So far research-work and studies on fertility have focused on the trends, rates and causes of the world's declining fertility. However, most studies have only suggested the variety of factors that appear to have contributed to fertility decline, such as tradition, culture, religion, education, political, socio-economic development, reduction in mortality, family planning and public health programmes. The issue that remains challenging in this respect lies in determining the factors or set of factors that can be regarded as the major contributer to the world's fertility decline.

There has been a controversy among demographers in this connection. Some argue that it is economic development or industrialization htat motivates fertility control. Others attribute it to the provision of organized family planning services. To what extent are population declines the result of family planning programmes? What roles do social and economic development play? Can fertility decline in poor, little-educated, mostly rural areas be affected? Or, do people have first to experience a considerable degree of social and economic progress before they would accept family planning programmes?

Bearing this controversy in mind, the objectives of this analytical study are to examine the relative effect of socio-economic development and family planning programmes on the decline of fertility. The argument proposed is that

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* Original English.

socio-economic development is a primary factor and family planning programmes are only a secondary factor in influencing fertlity rates. In other words, the effect of family planning programmes on fertility decline is more or less dependent on the level of socio - economic development.

THEORETICAL BACKGROUND

The world population has been declining in the past twenty years. There was substantial fertility decline in Asia, quite a bit in the Americans, some in Africa. It is estimated that the world's total fertility rate has dropped from 4.6 births per woman to 4.1 births per woman between 1968-1975. In the less developed countries in the past twenty years the fertility rate has not only been declining, in contrary to demographic predictions and official population forecasts, but also doing so considerably sooner than expected.

Besides demographers, sociologists and economists, family planning programmers have also been trying to explain this new phenomenon. What are the factors contributing to this change? What conditions were associated with different magnitudes of family decline in developing countries over the past twenty years?

In a macro-analysis of fertility decline, Mauldin and Berelson[1/] suggested that fertility can be considered as a

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1/ Maulden, W.P and Berelson B. (1978). Conditions of Fertility Decline in Developing Countries, Studies in Family Planning 9, No. 5.

function of both demand and supply factors: demand factors refer to the level of interest in or motivation for fertility control or the effect of economic development; supply factors are the availability of information and services for fertility control or the effect of family planning programmes. The levels of demand and supply can be viewed as continuums ranging from low to high. Table I, demonstrates that countries with high level demand and supply for fertility will result in very low fertility. Low demand and low supply will result in high fertility. And those with high demand but low supply will also result in low fertility. These statements are generally accepted in the demographic circles. What is questionable is the cell with low demand but high supply for fertility control. Can supply differences make an impact upon fertility decline without any changes in the demand factors?

TABLE I: EFFECT OF SUPPLY AND DEMAND ON FERTILITY

		DEMAND	
		LOW	HIGH
SUPPLY	LOW	(low, Low) Hi fert.	(High, Low) Lo fert.
	HIGH	(Low, High) ?	(High, High Lo fert.

Demand: interest in or motivation for fertility as a result of economic development.

Supply: the effect of family planning programmes.

The influences of these two levels of factors are very complex. It is extremely difficult to disentangle their effects upon fertility decline with a substantial degree of precision and validity. But from the sociological point of view, the demand factors represent the basic determinants of fertility, while supply factors are merely the proximate determinants or inter-mediate factors - a necessary mechanism or instrument through which demand gets expressed in actual behaviour. What we would address in this paper is that, although family planning programmes (supply factors) have made significant impact on fertility decline, socio-economic factors (demand factors) are still of primary importance, and that family planning programmes alone will not make so great an impact on fertility decline.

This paper argues that economic development is the primary factor for fertility decline. Demographers' inquiry has generated theoretical basis highly relevant to this argument. According to the theory of demographic transition, a nation's demographic characteristics are dependent on its stage of industrialization. The first stage of the demographic transition, which has been characteristic of most societies, is the equilibrium of population size achieved by high fertility rate and high mortality rate.The high mortality rate is inevitable in the absence of modern forms of sanitation, medicine, transportation etc. Given this high rate of mortality, a high fertility rate is required. In stage two, nations undergoing through the process of industrialization, witness a decline in fertility rates but still remain relatively

high due to the influence of traditional social institutions. This stage is characterized by rapid decline in mortality and a high rate of population growth. In the third stage of the demographic transition, fertility rates gradually decline towards equilibrium with the new low mortality rate. The reduction of fertility typically lags behind the mortality decline because it cannot occur until traditional social and economic institutions supporting fertility are weakened, and new institutions favoring a reduction in fertility emerge.

The theory of demographic transition, which was popular soon after world war II, is congruent with the generally inverse association between fertility rate and degree of industrialization among nations today. The theory is also congruent with the fact that nations which are currently industrialized have lower fertility than they did before industrialization. Additional evidence, supporting the relationship between economic development and declining fertility, is the pattern of association between social class and fertility. In most nations, during recent years, the social classes with higher income have lower fertility than those with lower income. Demographic studies in Europe and U.S. have highlighted the importance of socio-economic status as a dominant factor for differences in family size preferences, and use of contraceptions.

Japan is a very good example of the effects of the demographic transition and socio-economic development on fertility decline. Both economic development and population trends acting upon it are topics of great significance in the last hundred years of Japanese modernization. In 1868 Japan had

a population of 35 million. Today, it holds more than three times that size (110 million) and its economy has developed to the point where its GNP ranks third in the world. A three-fold rise in population over a hundred years might seem rapid at first glance, but it actually amounted only to an annual one percent increase. Looking back at Japan, Japan's population increase has been fairly low since the start of its modernization. The economic growth rate from 1868 to 1912 is estimated to have been approximately four per cent per year. Consequently an average three per cent improvement per year can be inferred for the standard of living during that same period. The death rate dropped from 17 per thousand people to six per thousand, the birth rate dropped from 34 per thousand in 1947 to 15 per thousand in 1977. Demographically, Japan has changed quickly to a nation characterized by low fertility and mortality.

Control of fertility behaviour is so important to society as a whole, that it is never left solely to the individual couples. A more plausible general proposition is that reproduction, whether at high or low level, is so important to the families and societies that its level is more or less controlled by cultural norms about family size. In each society the cultural norms about these vital matters are consistent with social institutions in which they are deeply embedded. Changes in fertility are unlikely without prior or at least simultaneous changes in these institutions.

Davis and Blake[1] have provided a useful classification of factors which determine the fertility rate of a society. They call them "intermediate variables", intermediate between social institutions, norms, on the one hand, and fertility on the other. Any social influence on fertility can only operate by affecting one or more of these intermediate variables.

Davis and Blake point out that since having some children is very important in pre-industrial societies, a soceity with high mortality is likely to have built into its structure a strong pressure for having children early in marriage, and also for having some extra children as a safeguard against the catastrophic loss of the essential minimum number. If favourable economic conditions develop, this may result in too many children. Therefore there should exist a delicate balance of pressure towards higher fertility to ensure at least minimum number of children, and counter-pressure to minimize the surplus of children. Davis and Blake also present the hypothesis that these necessary balancing pressures in both directions account for the adoption of control practices in many pre-industrial societies which ensure a minimum fertility level, but permit a reduction in the number of children late in child bearing process, principally abortion and infanticide.

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(1) Davis, K. and Blake J., (1956). Social Structure and Fertility: An Analytic Framework, Economic Development and Culture Change, No. 4.

So the fact that cannot be denied is that a variety of control measures, including some forms of contraceptions have been available in underdeveloped areas, and that the past failure to use them more extensively has been a result of normative pressure for high fertility.

Up to this point, I have been concerned mainly with indicating that control measures were available for birth control, but the normative and cultural patterns in under-developed countries were to encourage high fertility for obvious reasons.

My position is that the convention of considering family planning programmes as crucial to long-term fertility decline is not substantiated empirically and represent a distored view. The family planning movement is overstressing the contribution of its programmes on reducing fertility, and has tended to undermine conditions such as improved health, lower mortality, and changing level of education and urbanization. In India, in the early 1960's, family planning had brought down the fertility of the small developing city of Singur[1/]. However, careful examination of the data showed that the declining trend had begun before the advent of family planning programmes and after the town has started developing.

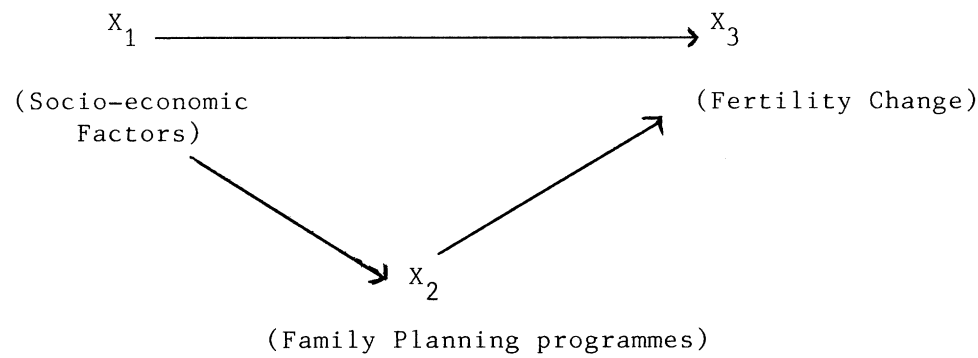
1/ Mathen K.K. (1964). Preliminary lessons learned from the Rural Population Control Study in Singur. Research in Family Planning. Kiser C.V. ed. Princeton University Press, U.S.A.

Tsui and Bogue[1/] conducted a study in an attempt to resolve the controversies between economic development and family planning. They assessed the family planning efforts of 89 developing countries in 1972. After comparing family planning efforts with some socio-economic indicators, they argued that organized family planning efforts have been the major contributor to fertility decline in less developed countries which include countries in Africa, Asia and Latin America. In Tsui and Bogue's analysis, they classified countries into developed and less developed, and limited their argument to the 89 less developed countries. They examined the effect of family planning on fertility only in the less developed countries. Therefore, their argument is not completely contradictory to the economic development argument. When they limit the analysis to less developed countries, they are actually holding economic development in constant. This means economic development is still treated as a factor of primary importance.

Family Planning impinges directly on fertility rate, but people are motivated to use family planning techniques by normative and social structural forces. Therefore, effects of family planning on fertility should be considered as secondary to and dependent on socio-economic factors. The model proposed to be analyzed is presented in the following graph.

1/ Tsui, Amy Ong and Donald J. Bogue, (1978). Declining World Fertility; Trends, Causes and Implications, Population Bulletin, 33, No. 4.

FIGURE I. FACTORS AFFECTING FERTILITY



MEASUREMENT AND DATA

The major sets of variables included in our analysis are:

I. Measures of fertility change (1965-1975).

II. Measures of socio-economic development (1968, 1975).

III. Measures of family planning programmes (1972).

Fertility Change

The most commonly used measure of fertility is total fertility rate which indicates the number of births per 1,000 woman 15-44 years of age. Since total fertility rates are not affected by sex and age composition of population, it is concerned to be the best measure of fertility. The measures of fertility change used in this analysis are crude birth rates (CBRs) of 1965 and 1975 assembled from the United Nations sources. Crude Birth rate is simply the number of births per thousand population. The reason we did not choose to use total fertility rates lies in the difficulty in finding complete total fertility rates for all countries for the year of 1965. Furthermore, it has been reported that these two measures are highly correlated.

It is to be noted that the crude birth rates of 1965 and 1975 and the percentage decline from 1965 to 1975 comprise the measure of fertility decline in this analysis.

Socio-economic Development Indicators

There are numerous socio-economic development indicators considered as contributing to increasing motivation for smaller family or declining fertility rate. These include education, industrialization, urbanization, density, income level, income distribution, status of woman, age at marriage, religious and ethnic affiliation, modernization, perception of costs and benefits of children, old-age security, etc. All these variables are usually categorized into five groups of variables, namely, health, education, economic status, urbanization and status of woman. In the literature, all these categories of variables are found to some extent associated with changes in fertility rates.

The indicators selected for use in this analysis are:

1. The per capita gross national product (GNP) - (indicator for economic status);
2. The percent of the population living in urban areas - (indicator for urbanization);
3. The infant mortality rate - (indicator for health);
4. The life expectancy at birth - (indicator for health);
5. The percent of employed woman working in agriculture - (indicator for woman status);
6. The percent of literates in the population - (indicator for education);
7. Female school enrollment ratios - (indicator for education)..

These seven variables serve as our major measures of socio-economic development. Although these variables may not be the most reliable and valid yard-sticks, they, nevertheless, measure the five important phenomena that correlate substantially with the change in fertility rates. We have assembled measurements of the above seven variables of 94 developing countries for the year 1968.

In order to do a path analysis, we have constructed an index of economic development. The index was constructed by using the socio-economic development measurements of the year of 1968. The 94 countries were ranked according to their values on each of the seven variables (from 94 to 1). Then, dividing their rank on each variable by the number of countries (94) for which we had values, summing those ranks, dividing the sum by the number of variables (7), and finally multiplying the result by 100. The index is shown in column 5 of Table II.

Family Planning Programmes

The measures of family planning programmes were derived from the following 15 "programmatic criteria" originally developed by Lapham and Mauldin, intended to estimate family planning effort, namely:

1. Fertility reduction included in the official planning policy;
2. Favorable public statements by political leaders;
3. Contraception readily and easily available, publicy and commercially, throughout the country;
4. Customs and legal regulations allowing importation of contraceptives not manufactured locally;

TABLE II: 1965 AND 1975 CRUDE BIRTH RATES, 1965-1975 CRUDE BIRTH RATE DECLINES, PROGRAMME EFFORT SCORE, SOCIO-ECONOMIC DEVELOPMENT INDEX: 94 DEVELOPING COUNTRIES

Country	Crude Birth Rate 1965	1975	1965-1975 Crude Birth Rate Decline (in percent)	Programme Effort Score	Socio-economic Development Index
AFGHANISTAN	49	49	0	3	15
ALGERIA	50	48	4	3	54
ANGOLA	49	47	4	0	32
BANGLADESH	50	49	2	3	24
BARBADOS	27	19	31	21	81
BHYUTAN	45	43	3	0	10
BOLIVIA	44	44	1	0	46
BRAZIL	42	38	10	0	74
BURMA	41	40	3	0	48
BURUNDI	48	48	1	0	11
CAMEROON	42	41	3	0	41
CEN. AFRICAN REP.	45	43	5	0	24
CHAD	45	44	2	0	18
CHILE	33	23	29	16	89
CHINA	34	26	24	25	55
COLOMBIA	44	33	25	16	77
CONGO	44	45	-2	0	59
COSTA RICA	41	29	29	21	84
CUBA	34	21	40	15	89
DAHOMEY/BENIN	51	49	3	3	25
DOMINICAN REP.	47	38	21	14	68
ECUADOR	45	45	0	6	70

TABLE II (CONT'D)

Country	Crude Birth Rate 1965	Crude Birth Rate 1975	1965-1975 Crude Birth Rate Decline (in percent)	Programme Effort Score	Socio-economic Development Index
EGYPT	42	35	17	8	58
EL SALVADOR	46	40	13	13	60
ETHIOPIA	50	49	2	0	10
FIJI	36	28	22	22	74
GHANA	50	49	2	3	50
GUATEMALA	45	43	4	9	55
GUINEA	47	46	2	0	17
HAITI	45	45	0	3	35
HONDURAS	51	48	7	7	51
HONGKONG	28	18	36	23	95
INDIA	43	36	16	19	44
INDONESIA	46	40	13	14	45
IRAN	46	45	2	14	62
IRAQ	48	48	0	0	70
IVORY COAST	46	45	0	1	38
JAMAICA	38	30	21	23	87
JORDAN	48	47	1	0	75
KENYA	50	50	0	6	41
KIMER/KAMPUCHEA	47	47	2	0	31
KOREA, NORTH	39	37	5	0	72
KOREA, SOUTH	35	24	32	24	81
KUWAIT	46	44	5	0	90
LOAS	44	42	5	0	28

TABLE II (CONT'D)

Country	Crude Birth Rate 1965	Crude Birth Rate 1975	1965-1975 Crude Birth Rate Decline (in percent)	Programme Effort Score	Socio-economic Development Index
LEBANON	41	40	2	0	85
LESOTHO	30	40	-4	0	39
LIBERIA	50	50	0	0	38
LIBYAN ARAB REP.	47	47	2	0	31
MASAGASCAR	50	50	0	0	38
MALAWI	49	47	5	0	24
MALAYSIA	42	31	26	18	71
MALI	50	50	-1	0	9
MAURITANIA	45	45	0	0	19
MAURITIUS	36	26	29	21	75
MEXICO	44	40	9	4	83
MONGOLIA	42	38	9	0	71
MOROCCO	49	48	2	4	53
MOSAMBIQUE	43	43	2	0	53
NEPAL	45	45	-1	6	14
NICARAGUA	49	46	7	0	68
NIGER	52	52	1	0	13
NIGERIA	50	49	1	2	31
PAKISTAN	48	47	1	8	43
PANAMA	40	31	22	19	84
PAPUA NEW GUINEA	43	41	5	0	38
PARAGUAY	42	39	6	3	74
PERU	43	42	2	0	73

Table II (CONT'D)

Country	Crude Birth Rate 1965	1975	1965–1975 Crude Birth Rate Decline (in percent)	Programme Effort Score	Socio-economic Development Index
PHILIPPINES	44	36	19	16	71
RWANDA	51	51	0	0	21
SAUDI ARABIA	50	50	0	0	43
SENEGAL	48	47	0	0	32
SIERRA LEONE	45	45	0	0	27
SINGAPORE	29	18	40	26	93
SOMALIA	48	48	0	0	12
SRI LANKA	33	27	18	12	67
SUDAN	49	49	0	3	28
SYRIAN ARAB REP.	48	46	4	0	68
TAIWAN	33	23	30	24	91
TANZANIA	51	48	5	3	26
THAILAND	44	34	23	11	55
TOGO	51	50	2	0	29
TRINIDAD AND TOBACO	33	23	29	12	84
TUNISIA	45	34	24	12	62
TURKEY	41	34	16	6	64
UGANDA	46	47	-4	0	32
UPPER VOLTA	50	49	1	0	6
VENEZUELA	42	37	11	7	91
VIETNAM, NORTH	42	32	23	20	37
VIETNAM, SOUTH	42	41	0	0	46
YEMEN	51	50	1	0	18
YEMEN, P.D.R. OF	50	49	3	0	32
ZAIRE	47	44	6	3	51
ZAMBIA	50	50	-2	0	50

5. Vigorous effort to provide family planning services to all married women of reproductive age;
6. Adequate family planning administrative structure;
7. Training facilities available and utilized;
8. Post-partum information, education, and service programme;
9. Full-time home-visiting field workers;
10. Abortion services openly and legally available to all;
11. Voluntary sterilization services (male and female);
12. Use of mass media on a substantial basis;
13. Government provides substantial part of family planning budget from its own resources;
14. Record keeping systems for clients at clinic level and for programme service statistics;
15. Serious and continuous evaluation efforts.

For each country, each criterion was scored yes: 2 points; qualified yes: 1 point; partially or no: 0 point. These ratings produced country scores ranging from 0 to 30, which are used in our correlational analysis. The scores are recorded for the 94 developing countries on the basis of the situation pertaining in each country around 1972. Regionally, the average value of this index for Africa around 1972 was just 2.27; for Asia, 18.73; for Latin America, 5.16; and for the developing countries as a whole, 15.02.

The statistical techniques that will be used for our analysis are correlations, multiple regression and path analysis. The major purpose is to obtain relative magnitude of the direct effect and the indirect effect of socio-economic development factors and family planning programmes on fertility decline.

ANALYSIS OF RESULTS

Table III shows the simple correlation between crude birth rate decline (CBR decline 1965-1975) and each of the socio-economic indicators. Among these seven variables, life expectancy, infant mortality and literacy, which represent health and education, are more closely associated with birth rate decline. Female in agriculture, female school enrollment and urbanization are only moderately associated with CBR decline. Per capita income and CBR decline are very weakly correlated.

In order to appreciate how much each additional socio-economic factor can add to the explanatory power, stepwise regressions were used. As illustrated in Table IV, the first variable (life expectancy) can explain about .55 per cent of the variance in birth rate decline. Adding another six variables has increased the explanatory power from .55 to .64 (R^2).

From looking at these two tables, we noted that the seven selected socio-economic indicators do have a substantial association with the crude birth rate decline during the period 1965-1975. The (R^2) changes in table IV (stepwise regression)

TABLE III: SIMPLE CORRELATION BETWEEN SOCIO-ECONOMIC INDICATORS (1968) AND CRUDE BIRTH RATE DECLINE (1965-1975)

Variable		Correlation Coefficient	
Life expectancy	X1	.74	
Infant Mortality Rate	X2	-.69	
Percent Literate	X3	.69	
Female in Agriculture	X4	.54	
Female school enrollment	X5	.51	
Urbanization	X6	.45	
GNP Per Capita	X7	.15	N=94

TABLE IV: STEPWISE REGRESSION

Variable	R^2	
X1	.55	
X1 + X2	.56	
X1 + X2 + X3	.58	
X1 + X2 + X3 + X4	.60	
X1 + X2 + X3 + X4 + X5	.60	
X1 + X2 + X3 + X4 + X5 + X6	.62	
X1 + X2 + X3 + X4 + X5 + X6 + X7	.64	N=94

TABLE V: SIMPLE CORRELATION BETWEEN SOCIO-ECONOMIC INDICATORS (1968) AND PROGRAMME EFFORT SCORES

Variable	Correlation Coefficient	
X1	.71	
X2	-.63	
X3	.62	
X4	.49	
X5	.47	
X6	.41	
X7	.11	N=94

reveal that adding more socio-economic variables does not help much in increasing their explanatory power. Therefore, seven socio-economic indicators are enough to represent the dimension of socio-economic influences. This certainly does not mean that these seven indicators are "the ones" that "affect birth rate decline".

Table V shows the simple correlation between programmes effort scores (measure of family planning programmes) and the seven socio-economic indicators. In comparing table III with table V, it becomes evident that socio-economic indicators also have a substantial association with family planning efforts. This is supportive to our argument.

TABLE VI: VALUES OF FACTORS AFFECTING CBR

Independent variables	R^2	
Socio-economic indicators	.64	
Programme effort scores	.79	
Socio-economic indicators and Programme effort scores	.84	N=94

Dependent variable: Crude Birth Rate Decline 19651-1975.

Table VI shows the (R^2) values or the explanatory power of all seven socio-economic indicators, programme effort score alone, and the joint of the two factors. In table IV, we noticed the small increment in (R^2) among the seven socio-economic indicators, while from table VI, it is obvious that programme effort score alone has an (R^2) value of .79. And, the

joint effect of programme effort score and socio-economic factors have brought an (R^2) increment by .20 (from .64 to .84).

From the correlation and regression analysis above, we can only summarize at this point that both family planning and socio-economic factors are highly associated with crude birth rate decline. By combining family planning measures and socio-economic measures, it adds a fairly good amount of explanatory power much more than adding another socio-economic factor. But these are not sufficient to argue that family planning efforts have a greater influence than socio-economic factors on crude birth rate decline over the ten years, and thus arguing that family planning effort is not simply a factor but also a primary factor for birth rate decline.

In order to understand the extent to which the programme effort itself is a function of the socio-economic factors, we will here resort to the use of path analysis technique. There are three variables in our path model: socio-economic factors, family planning effort and crude birth rate decline of 1965-1975. The single measurement to be used for representing socio-economic factors is a socio-economic index which is derived from combining the seven indicators of the year 1968. In our path model, it is assumed that both socio-economic factor and family planning effort exert a direct impact on birth rate decline and that the socio-economic factors themselves influence family planning effort. The arrows in the graph indicate the assumed directions of effects. The (R_u) and (R_v) indicate unexplained or residual effects. Figure 2 shows the path diagrammes of the direct and total

influence of socio-economic factor and family planning effort on birth rate decline.

The result of the analysis suggested that programme effort (X2) has more direct effect on CBR decline (.73) than do socio-economic factors (.22). Also, the direct effect of socio-economic factor on programme effort is relatively high (.59).

The indirect effect of socio-economic factor on CBR decline is estimated by multiplying the path value from (X1) to (X2), .59 by that from (X2) to (X3), .73, which is:

$$.59 \times .73 = .43 \qquad (1)$$

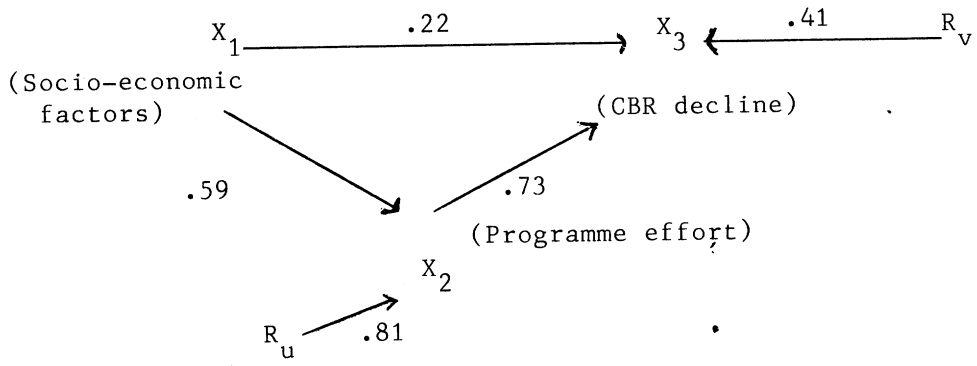
The total effect of socio-economic factor on CBR decline is the sum of direct and indirect effect, which is:

$$.22 + .43 = .65 \qquad (2)$$

(direct effect of X_1 on X_3 + indirect effect of X_1 on X_3 through X_2)

From equation (2) we find that almost two-thirds of the total effect of socio-economic development is filtered through programme effort. This implies that both factors are important and they do have good amount of interaction effect on CBR decline. But it is also worth noting that the path coefficients of unexplained variance are significant, .41 for CBR decline and .81 for programme effort. This suggests that a considerable part of programme effort is not associated with socio-economic factors.

FIGURE II: PATH DIAGRAM OF INFLUENCE OF PROGRAMME EFFORT AND SOCIO-ECONOMIC FACTORS



CONCLUSION

The purpose of this analysis is to examine the roles of family planning programmes and socio-economic development in the rapid fertility decline of developing countries in the period of 1965-1975. Data from 94 developing countries were collected. From the analysis of data, it is found that the level of socio-economic development as reflected by the seven socio-economic factors has a substantial relationship to fertility decline. But the analysis also showed that family planning programmes have a significant, independent effect over and above the effect of socio-economic development. Throughout the analysis, it is very likely that one would get the impression that family planning programmes are more important than socio-economic development. In the path analysis, though family planning programmes is assumed to be a function of socio-economic development, it still shows that family planning programmes add substantially to the amount of fertility decline accounted for.

What I would like to suggest in conclusion from our analysis is that the two sets of factors, namely, socio-economic development and family planning programmes go together most effectively. The joint effect of socio-economic development and family planning programmes appears to explain about 84 per cent of the total variance in fertility decline.

Countries that rank well on socio-economic development and also make substantial family planning programmes have on average much more fertility decline than do countries that have one or the other, and far more than those with neither.

Maulden and Berelson[1/], in their recent study, have found that during the period 1965-1976, developing countries that had experienced socio-economic growth but had no family planning programmes, fertility declined by about 5 per cent. Countries with strong family planning programmes and little development, experienced a fertility decline of about 20 per cent. Countries with both growth in development and strong family planning, experienced a decline of 30 per cent. Combining Maulden and Berelson's findings with Table I, we get the following table.

TABLE VII: FERTILITY CHANGE, SUPPLY AND DEMAND

		DEMAND (Socio-economic Development)	
SUPPLY (Family Planning Programmes)	LOW	0% Fert. Change	5% Fert. Change
	HIGH	20% Fert. Change	30% Fert. Change

It is likely that improved education, increased urbanization, more equitable income distribution, and improved status of women, are very desirable development goals and may eventually lead to lower fertility, but the process is quite slow as shown in upper right cell of table VII. The role of family planning in the rapid decline in developing country

1/ Maulden and Berelson. Conditions of Fertility Decline.

fertility that have already occurred is already widely acknowledged, but one can never deny that family planning programmes are actually part of the socio-economic development.

It was argued earlier in this paper that effects of family planning on fertility decline should be considered as secondary to and dependent on socio-economic development. It is important to clarify that the argument is not making a choice between family planning and socio-economic development; we are not talking about an either/or situation. Family planning programmes yield direct effect, general socio-economic devleopments yield indirect effect. These two major factors are interwoven in a complex matrix of influence on fertility change. It is certainly not an either/or question at all. Family planning and socio-economic development are not mutually exclusive. Socio-economic development programmes should include education, employment, health, agriculture and so on, as well as family planning.

When we argued that socio-economic development is of primary importance in influencing fertility rate, we do not mean that socio-economic development must precede family planning programmes. We simply mean that for family planning programmes to be effective, they cannot be totally independent of some effect of socio-economic development. For all practical purposes, they must accompany some level of socio-economic development.

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SHIFTS OF THE DEMOGRAPHIC WEIGHTS OF JORDANIAN CITIES: 1952-1979

Musa Samha*

INTRODUCTION

Many Arab countries, including Jordan, are suffering from the problem of rapid urbanization due to an accelerated and unregulated population drift towards the cities which, in spite of their tremendous expansion, are no longer able to provide the services needed for the absorption of more migrants. The drift towards the cities is normally attributable to the inability of the rural economy to support a rural population characterized by a high rate of natural increase. The problems of the major cities have also been aggravated by the vast and unexpected wave of involuntary migrants.

During the last three decades, the East Bank of the Jordan** has witnessed a rapid population growth which has had direct repercussions on its cities, some of which exhibit growth rates in excess of the national average. The fact that this increase has not taken place at the same rate in all cities is due to differences in the regional population distribution and to the phenomenon of forced and voluntary migration. Planners and researchers have not devoted sufficient attention to the subject

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* Original Arabic

** This study is confined to the cities on the East Bank in view of the non-availability of complete and accurate data on the cities of the West Bank due to the occupation.

of population increase in Jordanian cities since most of their studies and surveys have focused on the demographic characteristics of the population and, in particular, on population growth at the national level. Consequently, this paper constitutes a humble attempt to clarify the situation regarding urban population growth in the light of the changes observed in the East Bank from 1952 to 1979, to examine patterns and trends in that growth and, at the same time, to interpret its component factors. To that end, some simple statistical methods have been used to measure and analyse rank-size changes in cities, the extent of urban hegemany, and population concentration on the basis of the data provided by the censuses of 1952, 1961, 1979 and other sources.

The difficulty of defining urban centres is one of the main problems encountered during research work on cities since the classifications used in most countries of the world are not standardized and may even differ from time to time in a given country, as in the case of Jordan in which the classification of rural and urban areas in 1952 differed from that used in 1961 and 1971. In this study of urban population growth in Jordan, we have regarded the official classification of urban and rural areas during the years in question as the main criterion on which to base comparisons between the rates of urban population growth recorded in the three censuses. The same approach has been adopted with regard to centres of human settlement which, although not regarded as urban areas in 1952 and 1961, came to be regarded as such in 1979, in order to ascertain the level of population growth in each of those centres.

It should be noted that the only data available on internal migration in Jordan is that given in a very small number of studies undertaken by individual researchers and one study prepared by the Department of Statistics in 1967 before the war. Unfortunately, the latter study is incomplete since it was unable to cover all Jordanian cities due to the wartime conditions. Accordingly, the population growth rates between the census years in the periods 1952-1961 and 1961-1979 have been estimated on the basis of the natural and over-all rates of population increase in the various Jordanian cities and governorates.

THE CHANGING PATTERN OF POPULATION GROWTH AND DISTRIBUTION IN JORDAN

The main feature of population growth in Jordan since the middle of the present century has been the threefold increase in the size of the population as a result of the influx of refugees from Palestine in 1948 and the unification of the East and West Banks in 1948 which increased the population from 400,000 (population of the East Bank) to 1,250,000 persons in one year (400,000 persons from the population of the West Bank and 450,000 refugees)[1/]. The total population increased from 1,329,174 persons at the time of the 1952 population and

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1/ El-Badry, M. (1965). Trends in the Components of Population Growth in the Arab Countries of the Middle East: A Survey of Information, Demography, Vol. 2.

housing census to 1,706,226 persons nine years later at the time of the first comprehensive population census in 1961. During that period, therefore, the population growth rate in Jordan amounted to 38.4 per cent. However, this growth was not equally distributed throughout the country since the population tended to concentrate in certain areas. Following the unification of the East and West Banks in 1948, there was a general population drift towards the East Bank and, although the East and West Banks had similar population sizes in 1948, they subsequently exhibited a population imbalance. The 1952 census shows that the greater part of the population was living in the West Bank where the refugees had settled in order to be nearer to their usurped homes. After that date, however, the wave of migration began to take its natural course from the West Bank to the East Bank as a result of the demographic pressure in the former and the economic investments in the latter. Consequently, we find that, by 1961, the population of the East Bank with its growth rate of 53.49 per cent had outstripped that of the West Bank exhibited a growth rate of 8.51 per cent during the period 1952-1961[1/].

Even more migrants flooded into the East Bank when the tragedy of 1948 was repeated during the June war of 1967 as a result of which 385,273 migrants and refugees left the West Bank and the Gaza Strip for the East Bank (Ministerial Committee for Relief of Displaced Persons, 1976). The migration

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1/ Buhairi, Salah El-Dine, (1973). Joughrafiat Al-Ordon, (Jordan Geography), Al-Shark Press and Bookstore, Amman.(Arabic)

caused substantial changes in the growth and distribution of Jordan's population, particularly in the East Bank. As a result of the occupation, 229,169 refugees from the West Bank (29.8 per cent of its population) migrated to the East Bank in 1967, together with 46,104 persons from the Gaza Strip. It should also be noted that, due to Israeli attacks on the West Bank itself immediately after the June war, 40,000 persons migrated from the Central Jordan Valley and, in particular, from the Karameh area.

The preliminary results of the 1979 census showed that the population of the East Bank, amounting to 2,152,273 persons, had increased rapidly during the preceding three decades at an annual growth rate of 4.76 per cent in the period 1952-1961 and 4.84 per cent in the period 1961-1979.

Differences can also be observed between the governorates of the East Bank with regard to population growth and distribution. Table 1 shows that the percentage of the total population living in the governorates of Amman, Irbid and Balqa increased from 84.7 per cent in 1952 to 87.3 per cent in 1961 and 89.6 per cent in 1979. In contrast, the percentage of the total population living in the governorates of Karak and Ma'an decreased from 15.3 per cent in 1952 to 12.7 per cent in 1961 and subsequently to 9.4 per cent in 1979. These figures highlight the manner in which the population is concentrated in the north-western corner of the East Bank. This phenomenon is due to a combination of natural factors, forced migration in 1948 and 1967, and voluntary internal migration which was

TABLE I. POPULATION DISTRIBUTION IN THE GOVERNORATES OF THE EAST BANK

Governorate	Population in 1952	%	Population in 1961	%	Population in 1979	%
Amman	218,465	37.2	433,608	48.1	1,187,750	55.2
Irbid	213,877	36.4	283,976	30.4	611,658	27.4
Balqa	64,926	11.1	79,057	8.8	151,382	7.0
Karak	89,617	15.3	67,211	7.5	126,082	5.9
Ma'an			46,914	5.2	75,401	3.3

Source: Censuses of 1952, 1961 and 1979.

mainly oriented towards the principal cities which offered greater employment opportunities for migrants[1/].

The annual population growth rates for the periods 1952-1961 and 1961-1979 illustrate the imbalance in the population growth of the various governorates. During the first period, the governorate of Amman exhibited the highest annual population growth rate (7.62 per cent) while all of the other governorates recorded rates varying from 2.19 to 2.75 per cent, i.e. lower than over-all rate for the East Bank (4.76 per cent). These figures indicate the existence of a migratory trend from all of the governorates towards the governorate of Amman. This is confirmed by the fact that the net annual growth rate due to migration is negative for all of the governorates in the East Bank, with the exception of the governorate of Amman which exhibited a rate of 4.42 per cent due to migration. The same trend continued during the second period in which the governorate of Amman recorded the highest annual growth rate (5.6 per cent). The governorate of Irbid took second place (4.46 per cent) while the governorates of Balqa, Karak and Ma'an recorded rates of 3.61 per cent, 3.49 per cent and 2.64 per cent respectively. In all the governorates except that of Amman, the rates were lower than the over-all rate for the East Bank.

1/ Wander H. (1966). Analysis of the Population Statistics of Jordan. Vol. I, Department of Statistics Press, Amman, and Samha, M. (1979). Migration to Amman: Patterns of Movement and Population Structure, Unpublished Ph. D. Thesis.

TABLE II. THE DISTRIBUTION OF POPULATION IN THE GOVERNORATES OF EAST BANK BY URBAN AND RURAL 1952, 1961 and 1979.

Governorate	Pattern	Population in 1952	%	Population in 1961	%	Population in 1979	%
Amman	Total	218,465	100	433,608	100	1,187,750	100
	urban	145,260	66.5	359,984	83.0	988,354	83.0
	rural	73,205	33.5	73,624	17.0	199,396	16.8
Irbid	Total	213,877	100	273,976	100	611,658	100
	urban	43,077	20.1	74,164	27.1	193,515	31.6
	rural	170,800	79.9	199,812	72.1	418,143	68.4
Balqa	Total	64,926	100	79,057	100	151,382	100
	urban	15,478	23.8	16,177	20.5	36,521	24.1
	rural	49,448	76.2	62,880	79.5	114,461	75.9
Karak *	Total	89,617	100	67,211	100	126,082	100
	urban	21,471	24.0	11,928	17.7	36,091	28.6
	rural	68,146	76.0	55,283	82.3	89,991	71.4
Ma'an	Total			46,914	100	75,401	100
	urban			15,551	33.1	42,904	56.9
	rural			31,363	66.9	32,497	43.1
East Bank	Total	586,885	100	900,776	100	2,152,273	100
	urban	225,286	38.4	477,804	53.0	1,297,385	60.3
	rural	361,599	61,6	422,972	47.0	854,888	39.7

* Karak and Ma'an were one governorate in 1952.
Source: Censnses of 1952, 1961 and 1979.

During the second period, the governorate of Amman continued to attract migrants from the other governorates and its net annual growth rate due to migration amounted to 1.8 per cent. The governorate of Irbid also began to attract migrants, as a result of which its net annual growth rate due to migration amounted to 0.66 per cent. In contrast, the other governorates continued to lose migrants to those two governorates and, in particular, to Amman.

URBAN POPULATION GROWTH IN THE EAST BANK

The change in population distribution among the governorates was accompanied by a similar change in population distribuiton between rural and urban areas. The percentage of the total population of the East Bank living in urban areas increased from 38.4 per cent in 1952 to 53.0 per cent in 1961 and 60.3 per cent in 1979 i.e. an increase of 21.9 per cent between 1952 and 1979. The governorate of Amman witnessed the highest growth in its urban population which increased by 16.7 per cent in the period 1952-1979, while the governorates of Irbid, Balqa and Karak recorded only small increases of 4.5 per cent, 3.6 per cent and 4.6 per cent respectively in their urban population. However, the governorate of Amman recorded a rise of 32.9 per cent during the same period (Table II).

The growth rates of the rural and urban population are not commensurate with the percentage population distribution in the various governorates. During the period 1952-1961, the annual growth rate of the urban population in the East Bank as a whole amounted to 8.35 per cent while the urban population

TABLE III. POPULATION GROWTH IN THE GOVERNORATES OF THE EAST BANK OF JORDAN BY RESIDENTAL PATTERN

Governorate	Annual growth rate % 1952 - 1961	Net annual growth rate % due to migration 1952 - 1961	Annual growth rate % 1961 - 1979	Net annual growth rate % due to migration 1961 - 1979
Amman				
Total	7.62	4.42	5.60	1.80
urban	10.08	6.88	5.61	1.81
rural	0.6	- 3.14	5.54	1.74
Irbid				
Total	2.75	- 0.45	4.46	0.66
urban	6.04	2.84	5.33	1.53
rural	1.74	- 1.46	4.10	0.30
Balqa				
Total	2.19	- 1.01	3.61	- 0.19
urban	0.49	- 2.71	4.52	0.72
rural	2.67	- 0.53	3.35	- 0.45
Karak				
Total			3.49	- 0.31
urban			6.15	2.35
rural	2.69	- 0.51	2.17	- 1.09
Ma'an	2.74	- 0.46		
Total	2.67	- 0.53	2.64	- 1.16
urban			5.64	1.84
rural			0.20	- 3.60
East Bank				
Total	4.76	1.56	4.84	1.04
urban	8.35	5.15	5.55	1.75
rural	1.74	- 1.46	3.91	0.11

Source of original population data: Censuses of 1952,1961 and 1979. The rates have been calculated by the author.

of the governorate of Amman exhibited an annual growth rate of 10.08 per cent. In the other governorates the rate was lower than that for the East Bank as a whole. During the second period 1961-1979, the rate for the East Bank as a whole amounted to 5.55 per cent, while the governorates of Karak, Ma'an and Amman recorded rates of 6.15 per cent, 5.64 per cent and 5.61 per cent respectively. The governorates of Irbid and Balqa recorded rates of 5.33 per cent and 4.52 per cent respectively (Table III).

The above-mentioned rates clearly indicate that the increasing populationgrowth of urban centres constitutes one of the most significatn demographic changes in Jordan. One demographer has even affirmed that "Jordanian cities are regarded as cities by virtue of their population size"[1/]. In fact, the waves of forced immigration have afflicted some cities of the East Bank with a form of "urban indigestion". Within three decades, the urban component of Jordan's population increased from 38.4 per cent to 60.3 per cent although, under normal circumstances, this increase could not have been achieved in such a short period of time.

FACTORS AFFECTING URBAN POPULATION GROWTH IN THE EAST BANK

In principle, the rate of natural population growth in the cities should be lower than the corresponding rate for rural areas and the process of immigration should result in a reduction of the rate of natural increase among the immigrant

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1/ Buhairi, Ibid.

population. However, that theoretical assumption does not apply to the present situation with regard to population growth in Jordanian cities since the combination of high rates of natural population growth in the cities and a constant influx of migrants has led to a rapid increase in the population growth of the cities in the East Bank. Both Ettema (1970)[1/] and Wander (1966)[2/] have shown that, with regard to natural increase, the results of the 1961 census do not show any differences in fertility between the population of rural and urban areas. The same situation was confirmed in 1972 and 1976[3/]. It seems that other Arab cities also exhibit high rates of natural population growth. Abu Lughod[4/] has shown that fertility levels in Egypt are similar in both rural and urban areas. Hill[5/] has

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1/ Ettama, W. (1970). Female Fertility in the Kingdom of Jordan: A Statistical Analysis, Tijdschrift Voor Economische en Sociale geographie. Vol. 61, No. 4.

2/ Wander, H. (1966). Analysis Population Statistics Jordan.

3/ El-Asad, Sh. and Khalifa, H. (1977). Fertility Estimates and Deffercutials in Jordan, 1972-1976, Population Bulletin of ECWA, No. 12.

4/ Abu-Lughod, J. (1963). Urban-Rural Differences as a Function of the Demographic Transition, Egyptian data and an analytical model, American Journal of Sociology, 69.

5/ Hill, A. (1972). The Gulf States: Petroleum and Population Growth, Populations of the Middle East and North Africa. Clarke, J. and Fisher W. (ed), London.

also indicated that the population of the city of Kuwait exhibits a high rate of natural population growth. These high rates of natural population growth in Jordanian cities may be attributable to the following:

1. A reduction in mortality as a result of the concentration of health services in the cities in which health standards are higher than those in urban areas (Jordanian Development Conference, 1976). This has tended to increase the natural growth rates in cities in which improved standards of health have simultaneously led to higher birth rates.

2. Higher fertility as a result of the influx of refugees and migrants who headed for the cities in 1948 and 1967 since job opportunities were more difficult to find in rural areas. The latest UNRWA statistical bulletin (1980) indicates that about 82 per cent of the total number of refugees and migrants in the East Bank are living in cities. Since the refugee and migrant population is characterised by high fertility rates, particularly in the case of persons living in camps[1/] there has been a consequent rise in natural population growth rates in the cities.

Voluntary internal migration in Jordan has taken place in a single stage from urban areas to the major cities and, in particular, to the capital. The prevailing trend has also

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1/ El-Badry, M. (1965). Components Population Growth Arab Countries.

TABLE IV. POPULATION GROWTH IN THE CITIES OF THE EAST BANK OF THE JORDAN 1952 - 1979

City	Annual [1] growth rate % 1952 - 1961	Net annual growth rate % due to migration 1952 - 1961	Annual [2] growth rate % 1961 - 1979	Net annual growth rate % due to migration 1961-1979
Amman	9.14	5.94	5.43	1.63
Suweilih**	4.43	1.23	10.14	6.34
Wadi Seer**	1.47	-1.73	9.47	5.67
Zarqa	13.54	10.34	4.49	0.69
Ruseifa*	22.75	19.55	11.56	7.76
Madaba	3.03	-0.17	5.18	1.38
Irbid	7.30	5.10	5.15	1.35
Deir Abi Said**	2.16	-1.04	4.97	1.17
Samar**	0.61	-2.59	3.92	0.12
Jarash	4.15	0.95	5.44	1.64
Mafraq	5.09	1.89	4.51	0.71
Sabha and Subhiya**	8.06	4.86	7.99	4.19
Ajfour	-2.65	-5.85	2.52	-1.28
Ramtha	2.29	-0.91	5.16	1.36
Ajlun	8.46	5.26	-0.94	-4.74
Shuna Shamaliya**	0.77	-2.43	4.55	0.75

(Con't)

TABLE IV. CONT'D

City	Annual [1] growth rate % 1952 - 1961	Net annual growth rate % due to migration 1961-1979	Annual [2] growth rate % 1952 - 1979	Net annual growth rate % due to migration 1961 - 1979
Salt	0.49	-2.71	3.94	0.14
Deir Ala **	-7.89	-11.09	0.28	-3.52
Shna Janoubiya **	-6.30	-9.50	4.43	0.63
Karak	3.25	0.05	2.58	-1.22
Qasr **	-3.19	-6.39	3.95	0.15
Mazar **	3.02	-0.18	5.41	1.61
Ghour Al Safi **	8.19	4.99	3.08	-0.72
Tafila	-7.17	-10.37	5.67	1.87
Ma'an	4.31	1.11	2.96	-0.84
Wadi Musa	10.38	7.18	10.85	7.05
Aqaba	12.7	9.52	6.16	2.36

Source of original data: Censuses of 1952, 1961 and 1979 . The rates have been calculated by the author.

* Not classified as urban centre in 1952 and 1961.

** Not classified as urban centre in 1952.

1/ Rate of natural increase 3.2 %.

2/ Rate of natural increase 3.8 %.

been towards household rather than individual migration[1/]. Consequently, this sudden and direct relocation of entire households from rural areas to the capital city has not had the effect of changing patterns of fertility among the migrants. This sudden relocation has also prevented rapid integration and adaptation to urban life and most of the migrant housholds have retained the customs and traditions that they brought with them to the city. A contributing factor in this respect is that migrants from particular areas have tended to concentrate in certain parts of the city. The fertility rates of these immigrants have therefore remained high, which is not surprising since they came from areas characterized by high fertility[2/]. It would seem that this trend has led to the so-called ruralization of cities[3/].

However, the continuing similarity of rates of natural population growth in urban and rural areas does not in itself explain the rapid population growth in the cities since, even on the assumption that the national rate of natural population increase applies to the cities, the latter could not have attained their present population size during thecourse of

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1/ Kawabe, H. (1973). Some Aspects of Migration to Amman, Jordan. Urbanization and Migration in Some Arab and African Countries, Cairo Demographic Centre, Research Monograph Series No. 4.

2/ Samha, M. (1979). Migration to Amman, and Wander, H. (1966) Analysis Population Statistics Jordan.

3/ Ibrahim, Saad Eddine,(1979). Hader Almoudun Alarabia wa mostaqbalha (Present & Future of Arab Cities). Second Regional Conference on Population, ECWA, Damascus, Dec. 1979.

three decades. This means that a continuous wave of immigration is still boosting population growth in the Jordanian cities, as can be seen from Table IV. Although the events of 1948 and 1967 both led to waves of forced immigration to the cities of the East Bank, the wave of immigration in 1967 was of much greater magnitude since, while the West Bank had absorbed the greater part of the refugees in 1948, the East Bank alone received most the refugees and migrants in 1967. According to one source[1/], 189,223 migrants and refugees sought refuge in the cities of the East Bank in 1967. They were distributed as follows:

Amman:	128,729	Zarqa:	32,644	Salt:	13,729
Irbid:	10,448	Madaba:	3,673		

Data compiled by UNRWA (1980) indicate that the number of refugees registered with the Agency in the East Bank amounted to 716,372 persons, including 505,611 in the area of Amman, 109,945 in the area of Irbid and 100,816 in the area of Balqa, of which 93 per cent, 75 per cent and 24 per cent respectively were living in cities in the above-mentioned areas.* According to one study, 52 per cent of the total number of households which moved to the city of Amman between 1948 and 1977 consisted of refugees and migrants[2/].

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* It should be noted that the country's official administrative divisions differ from those adopted by UNRWA.

1/ Higher Ministerial Committee for the Relief of Immigrants (1976). Distribution of Immigrants 1967. Statistical Chart, Amman.

2/ Samha, Mosa, (1980). Migration of Refugees and Non-Refugees to Amman 1948-1977, ECWA Population Bulletin, No. 19.

The sudden influx of refugees and migrants in 1948 and 1967 paved the way for the wave of internal migration from rural to urban areas and both types of forced and voluntary migration were oriented towards the major cities. In the period 1952-1961, the cities of Amman and Zarqa received about 90 per cent of the total migrant population moving to the major urban centres. This represented approximately four times the natural rate of population growth in those two cities. During the same period, the population of Irbid increased by about 60 per cent and that of Aqaba by about 180 per cent as a result of migration[1/].

The same trend continued in the period 1962-1967 (before the war), as confirmed in a study conducted by the Department of Statistics which drew attention to the rapidly increasing phenomenon of internal migration from rural to urban areas in the Kingdom and, in particular, to the capital Amman and to Zarqa, Ruseifa and Aqaba. According to the study on internal migration and the comprehensive census of 1967, of the 44,000 persons who migrated to the four above-mentioned cities, Amman alone absorbed 63 per cent of the total while Zarqa received 28 per cent and Aqaba and Ruseifa 4 per cent each.

1/ Wander, H. (1966). Analysis Population Statistics, Jordan.

DIFFERENCES IN POPULATION GROWTH BETWEEN THE CITIES OF THE EAST BANK

Both types of migration had a significant effect on the population growth of Jordanian cities. Although this effect varied from city to city, in some cases it led to increases in excess of those resulting from natural population growth, as can be seen from the data given in Table IV. During the first period 1952-1961, while natural population growth was estimated at 3.2 per cent[1/], we find that Ruseifa, Zarqa and Aqaba exhibited the highest net annual growth rates due to migration (19.55 per cent, 10.34 per cent and 9.52 per cent respectively), whereas in the case of Amman, Ajlun and Irbid the annual growth rates due to migration amounted to 5.94 per cent, 5.26 per cent and 5.10 per cent respectively. Accordingly, the Amman-Ruseifa-Zarqa triangle recorded the highest rates of migration-related population growth in the East Bank. In some other cities, population growth due to migration amounted to no more than 2 per cent (Mafraq, Ma'an and Jarash) while population growth in Karak was almost entirely attributable to natural increase. In contrast, the population of other cities declined as a result of migration (Salt -2.71 per cent, Ramtha -0.91 per cent, Madaba -0.17 per cent and Tafila -10.37 per cent)*.

1/ Wander, H.(1966). Analysis Population Statistics Jordan.

* The figure given for Tafila is unreliable since the population size of 8,588 persons recorded in the 1952 census apparently included the population of the human settlements surrounding the city. In 1961, the population of the city itself amounted to only 4,506 persons.

In other words, there was a trend towards migration not only from rural to urban areas but also from city to city. This is confirmed by a study on the city of Amman, conducted in 1977, the results of which show that 62.8 per cent of the total number of voluntary internal migrants from the East Bank came from other cities on the East Bank[1/].

It seems that the same pattern continued during the second period 1961-1979 since the annual population growth rates of the cities in the East Bank show that the population of some cities actually declined as a result of migration e.g. Ajlun -4.74 per cent, Deir Ala -3.52 per cent, Ajfour -1.28 per cent, Karak -1.22 per cent, Ma'an -0.84 per cent and Ghour Al-Safi -0.72 per cent while some cities such as Zarqa, Shuna Al Shamaliya, Shuna Al Janoubiya, Mafraq, Samar, Salt and Qasr recorded growth of less than 1 per cent due to migration. The cities of Amman, Madaba, Irbid, Deir Abi Said, Jarash, Ramtha, Mazar and Tafila grew at a rate of 1-2 per cent and Aqaba at a rate of 2.36 per cent due to migration. Sabha and Subhiya grew at a rate of 4.19 per cent as a result of migration, while Ruseifa, Wadi Musa, Suwailih and Wadi Seer recorded the highest levels of annual population growth due to migration (7.76 per cent, 7.05 per cent, 6.34 per cent and 5.67 per cent respectively).

Once again, if we take into account the cities of Ruseifa, Suwailih and Wadi Seer on the outskirts of the capital, it can be seen that the area of Amman exhibited the highest population

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1/ Samha , M. (1979). Migration to Amman.

growth due to migration. In fact, during the first period 1952-1961, Amman's growth due to migration was much greater than during the second period. However, it should not be forgotten that migration to the area of Amman continued without interruption and the expanding suburbs of Amman, which became cities in 1979, absorbed a large number of the migrants arriving in Amman. Furthermore, some of the inhabitants of Amman itself began to move to those suburbs while Amman continued to receive migrants. In this connection, it should be noted that a large part of the population of Ruseifa came from Amman or Zarqa after the mid 1970s while another part of the population of Amman came from the cities of Suweilih and Wadi Seer. It seems that Amman has been affected by a form of urban inflation as a result of which it is no longer able to absorb all of the incoming migrants and has begun to split at the seams, discharging some of its population into the neighbouring suburbs.

Under the 1979 reclassification some cities, such as Wadi Musa, Sabha and Subhiy came to be regarded as urban centres although they had not previously been classified as such in 1952 and 1961. This was due to their high rates of growth resulting from migration and also to the fact that the nomadic population living in their vicinity began to settle within their confines. Furthermore, Wadi Musa plays an important role as a tourist centre due to its proximity to the historic city of Petra.

It should also be noted that Jordanian cities have greatly affected by the migration of foreign labour to Jordan and also by a new pattern of migration, namely that of migrants returning to Jordan. Such migration has, in fact, been oriented mainly towards the major cities. The clearest indication of this is provided by the data compiled by the Ministry of Labour in 1981 which gives the following details on the distribution of foreign labour in Jordan in mid-1981: 66 per cent living in thecity of Amman and its suburbs, 13 per cent in the governorate of Ma'an and the city of Aqaba, 9 per cent in the city of Zarqa, 5 per cent in the city of Irbid, 4 per cent in the city of Karak and the remainder in Shuna Al Shamaliya[1/].

APPLICATION OF THE RANK-SIZE RULE TO THE CITIES OF THE EAST BANK

Forward and reverse trends in the population growth of Jordanian cities can be monitored in the light of the rank-size of those cities in various chronological periods. This method is based mainly on the measurement of differences in the rank-size of cities and the extent of their similarity to or departure from the normal rank-size distribution. This method, devised by Zipf[2/], consitsts in the sequential listing of cities in accordance with their population size. Distribution is regarded as normal when the rank-size relationship takes the

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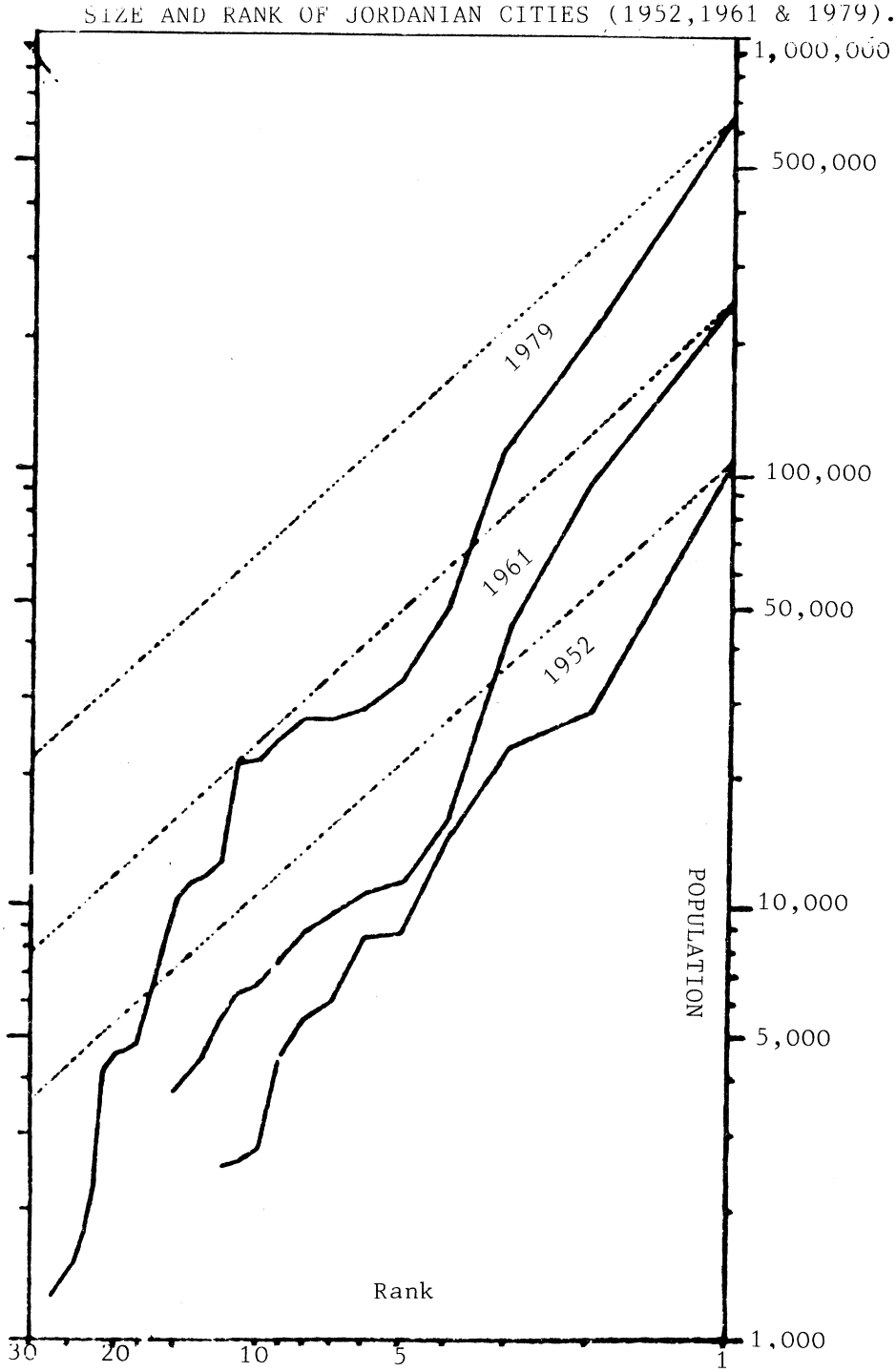
1/ Ministry of Labour, (1981). The Statistical Report, Maglet Al Amal (Labour Magazine) Nos. 13 and 14.

2/ Costello, V. (1977). Urbanization in the Middle East, Cambridge University Press, Cambridge.

FIGURE I:
SIZE AND RANK OF JORDANIAN CITIES (1952,1961 & 1979).



form of a straight line indicating that the population of the second largest city is half the size of the largest city and that the population of the tenth largest city is one tenth the size of the largest city etc.

Figure I shows that, in 1952, 1961 and 1979, the rank-size of the cities of the East Bank deviated considerably from the normal distribution, that the medium-size cities were still unable to catch up with the major cities, and that the small cities exhibited a substantial deviation from the normal rank distribution, particularly in 1952 and 1979. This may be attributable to the fact that, as already mentioned, some cities were losing migrants to the larger cities and, in particular, to the largest and second largest cities. This confirms the hypothesis of a migratory trend from all parts of the country towards the major cities.

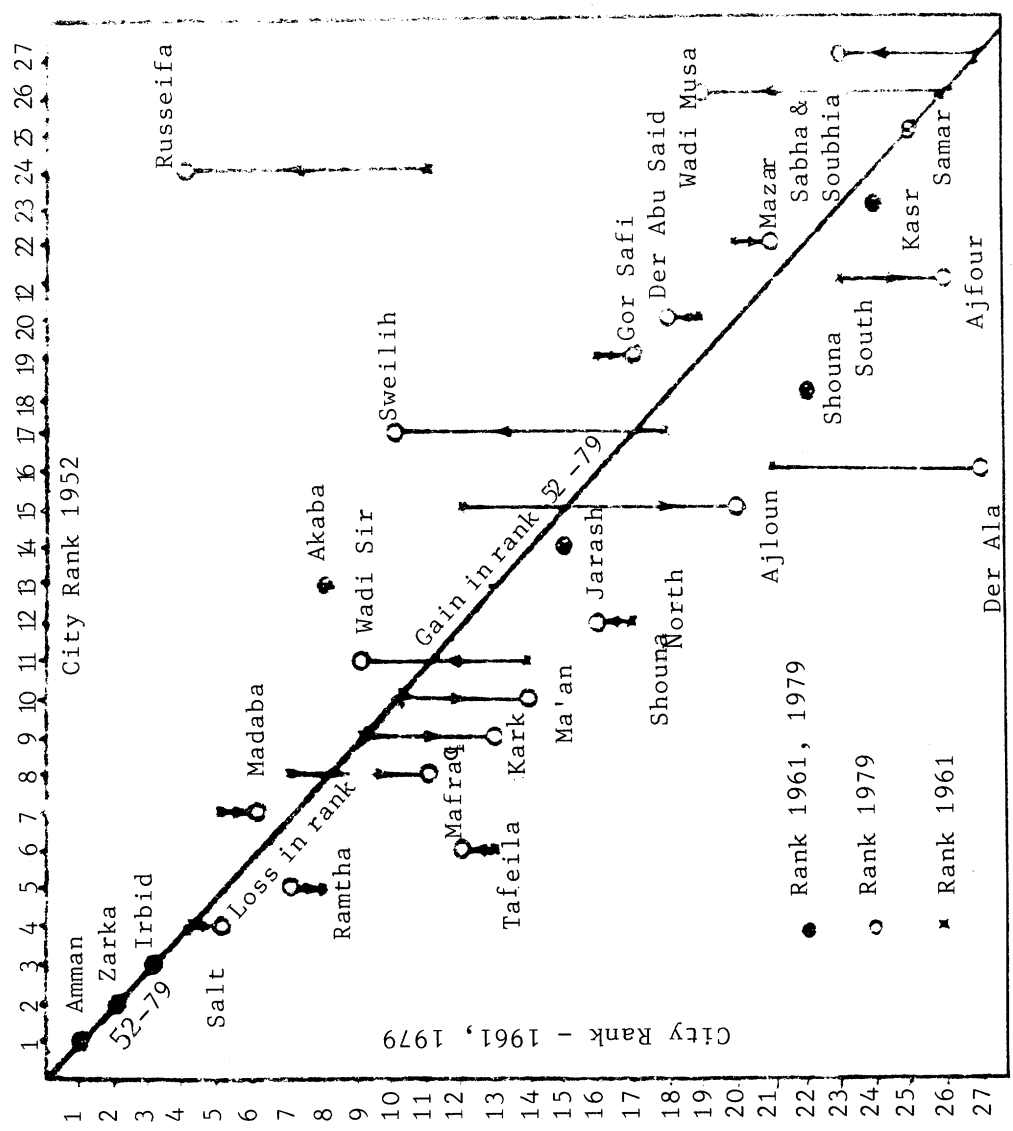
In order to clarify the role and effect of migration in the changes observed in the population growth and rank of Jordanian cities, we undertook a rank comparison for the years 1952, 1961 and 1979 by listing the cities of the East Bank in accordance with their population size (27 cities in 1979) and in accordance with their population size and rank in the years 1952 and 1961. A quadrilateral figure comprising 27 horizontal and vertical ranks was drawn and divided into two equal halves by a diagonal line from the top right hand to the lower left hand corner. The upper horizontal line indicated the city rank in 1952 while the right hand vertical line indicated the city rank in 1979 and also the difference in rank between 1961 and 1979. Under this method, the diagonal line bisecting the quadrilateral

distinguishes between cities gaining or losing in rank, as shown in Fugure II. Equal balance is required between all gains and losses in rank.

Figure II shows that the three largest cities in Jordan, namely Amman, Zarqa and Irbid, retained their rank in 1952, 1961 and 1979. The cities of Aqaba, Jarash, Shuna Al Janoubiya, Qasr and Samar also retained their rank in 1961 and 1979. However, the cities of Salt, Ramtha, Mafraq, Karak, Ma'an, Ajlun, Deir Ala and Ajfour declined in rank between 1952 and 1961 and also between 1961 and 1979. A comparison between the decline in rank of these cities and their net annual growth rate due to migration shows that they lost some of their population as a result of migration notwithstanding the fact that Deir Ala and Ajfour were classified as urban centres in 1979. It can also be seen that Ajlun, Deir Ala, Ma'an, Mafraq and Ajfour exhibited the greatest decline in rank between 1961 and 1979.

Some cities such as Wadi Musa, Sabha, Subhiya, Suwailih, Wadi Seer and Ruseifa, which had not been classified as urban centres in 1952, made substantial gains in rank between 1952 and 1961. The afore-mentioned figure also shows that four cities situated within the Amman areas, namely Madaba, Ruseifa, Suwailih and Wadi Seer, gained in rank despite the fact that both Amman and Zarqa retained their rank in 1952, 1961 and 1979. This indicates the existence of a significant population and urban concentration in the Amman area and shows that Amman and Zarqa are exercising urban hegemony over the other cities in the country.

FIGURE II
JORDANIAN CITIES GAINING OR LOSING IN RANK 1952-1979.



Some studies indicate that, when the largest city in the country is also the capital, there is a strong trend towards population concentration with a consequent increase in the degree of urban hegemony[1/]. The urban hegemony exercised by the city of Amman over the other cities in the country is due to various factors such as the successive waves of forced and voluntary migration and the functional status of Amman as the capital and focal point of economic activity and services. Sufficient indication of this is provided by a study, conducted by the Department of Statistics, on employment in enterprises employing five or more persons in 1976 from which it can be seen that 82.8 per cent of the total number of such enterprises and 92.6 per cent of the total number of persons employed in such enterprises throughout Jordan were based in the city of Amman. The city of Zarqa accounted for 5.3 per cent of such enterprises and 3.1 per cent of their employees, while Irbid accounted for 7.9 per cent of their employees. The cities of Salt, Karak, Ma'an and Aqaba together accounted for only 5 per cent of those enterprises and 1.9 per cent of their employees.

To ascertain the extent of the urban hegemony exercised by the city of Amman, use can be made of the so-called four city index which establishes a relationship between the population size of the largest city in the country and the total population size of the three next largest cities. According to Davis, who

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1/ Clarke, J. (1979). Contemporary Urban Growth and Concentration in the Middle East, ECWA 2nd Regional Population Conference, December 1979, Damascus.

devised this index: "The lowest value of the index must exceed 0.32 and the index does not necessarily require a maximum value. In practice, the index rarely drops below 0.50 or exceeds 8.0"[1/]. When using the index, Ibrahim[2/] showed that whenever the index approached 0.33 there was a strong indication of urban balance. In other words, balance is achieved when cities are equal in size i.e. on the assumption that the four largest cities are equal in size, which rarely happens. The size of cities is normally in inverse proportion to their rank distribution i.e. the size of the largest city is double that of the second largest city, triple that of the third largest and quadruple that of the fourth largest. Consequently, the size of the largest city is approximately equivalent to the combined size of the three next ranking cities and the distribution of cities exhibits a greater or lesser balance when the index comes closer to or moves away from the absolute value of one. Application of the four city index to Jordan shows that the Jordanian cities are exhibiting an increasing degree of urban imbalance since the index dropped from 1.62 in 1952 to 1.57 in 1961 and subsequently rose to 1.71, thereby indicating that the population of the city of Amman was greater than the combined population of the three next largest

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1/ Davis, Kingsley (1976). World Urbanization 1950-1970. Vol. I, Basic Data for Cities, Countries and Regions. Revised Edition, Population Monograph Series . No. 4, Greenwood Press, Connecticut.

2/ Ibrahim, Saad Eddine, (1979). Present and Future Arab Cities.

cities by 62 per cent in 1952, 57 per cent in 1961 and 71 per cent in 1979. We can therefore conclude that the urban hegemony of the city of Amman is constantly increasing and that the population growth of that primate city is placing a heavy burden on Amman's institutions and services, quite apart from the fact that it is draining a large part of the rural surplus and impeding the natural growth of smaller and medium-size cities.

The degree of the urban hegemony exercised by the city of Amman and the high population concentration in its surrounding area clearly indicate the extent to which rural areas are being neglected in favour of the cities which are therefore attracting a large number of migrants. It is noteworthy that the capital and its suburbs are polarizing the greater part of those migrants and that the small and medium-size cities, although comparatively better endowed than the surrounding rural areas, do not offer the same standard of services and facilities as the capital. We therefore find that Amman is attracting migrants not only from rural areas but also from the small and medium-size cities.

CONCLUSIONS

The following conclusions can be drawn from the indicators concerning the population growth of Jordanian cities:

1. The unequal population distribution among the governorates of the East Bank has created and imblance between the rural and urban population, prompting a wave of migration from rural to urban areas and causing a rapid increase in the population of the major cities.

2. The constant and increasing influx of rual migrants into the cities may eventually lead to a depopulation of rural areas. In fact, it can be seen that 60 per cent of the population of the East Bank were living in urban centres in 1979 as against 36 per cent in 1952. Furthermore, some of the smaller urban centres have also begun to lose some of their population through emigration to the major cities because of their inability to provide employment opportunities for their population and for migrants arriving from neighbouring rural areas.

3. The influxes of refugees and migrants in 1948 and 1967 has had a clear and lasting effect manifested in the mushrooming of cities such as Amman and Zarqa whose socio-economic problems have thereby been aggravated.

4. Some cities, particularly in the area of Amman, have grown rapidly; however, their growth is largely attributable to the inability of the primate city to absorb incoming migrants. Although it was expected that cities in other governorates would also grow thereby alleviating pressure on the largest and second largest cities, this did not happen. In fact, the migratory trend towards Amman became even more pronounced and led to the growth of the capital's suburbs.

5. Many cities declined in size, losing part of their population to the primate city which attracted migrants from all parts of the country

6. In spite of the rapid growth of some of the smaller cities, particularly those first classified as urban centres in 1979,

their small population size precludes them from enjoying the importance attached to the major cities.

7. There is a high urban population concentration in the area of Amman which has been growing steadily to the detriment of other areas, thereby creating an imbalance in the urban structure of the country.

The conclusions based on the statistics quoted in this study should be taken into account during the implementation of the current development plan (1981-1985). Although they might be regarded as general conclusions, they could lead us to the root causes of some of the problems, such as unequal population distribution, from which we are suffering. As a result of migration, some cities are declining while others are rapidly gaining in rank and size. It is essential that the development plan should establish guidelines to enable these cities to provide employment opportunities for their population and also for future migrants from neighbouring rural areas as an essential part of the process of revitalizing medium-size urban settlements. It should be noted that some cities, especially in the area of Amman, require proper planning to enable them to provide the services needed by their population. Cities such as Suweilih, Wadi Seer and Ruseifa which are growing at an unprecedented rate are in urgent need of planning while they are still in the stage of transition to the status of major cities in order to ensure that they will subsequently be able to cater for the needs of their population.

There are also several cities such as Shuna Al-Shamaliya, Shuna Al-Janoubiya, Deir Ala and Ghour Al-Safi which are surrounded by agricultural areas and therefore need to be planned and developed in order to be able to attract migrants and provide services for their rural hinterland. Some tourist/resort areas could also be developed with a view to revitalizing cities such as Jarash, Wadi Musa, Ajlun and Karak, particularly since the population of the two latter cities is constantly declining as a result of migration.

The city of Irbid has succeeded in attaining a certain balance between progress and decline and has therefore retained its rank and even achieved a relative increase in size due to its location at the centre of an agricultural area which has stimulated trade within the city. The establishment of Yarmouk University in its vicinity has been highly instrumental in enabling it to retain its position. In the long term, it is also possible that southern cities, such as Tafila and Karak, may expand as a result of the establishment of Muta University and the planning and development process should therefore be extended to those areas as soon as possible.

There is an urgent need to develop the small and medium-size cities in order to stem the tide of internal migration and establish a form of demographic balance between the cities. Such a measure would put into practice the hypothesis that a change in the characteristics of migrants would reduce the population growth rates of the major cities and achieve a greater degree of balance in the population distribution.

To this end, migration should be planned in conjunction with development with a view to achieving decentralization in the major cities and distributing economic investments and administrative institutions in such a way as to spread the urban population over a large number of small and medium-size cities in order to avoid their concentration in the two largest cities.

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THE VALIDITY OF FERTILITY TRENDS FROM RETROSPECTIVE DATA: JORDAN

by

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INTRODUCTION

Our knowledge about population dynamics for Jordan is limited by the lack of reliable demographic data. The best available demographic estimates for Jordan are based on indirect techniques which are subject to various weaknesses and biases. Recent fertility research has examined methods of fertility estimates from a survey limited to a single visit but collecting detailed retrospective information. The main advantage of retrospective fertility surveys is its potential for analysis of trends and differentials. In addition, retrospective surveys have the advantage of relative cheapness and immediacy of results compared to multi-round surveys. However, there are some doubts and skepticism about the reliability and the validity of the fertility trends obtained from retrospective surveys, particularly in places with high levels of illiteracy.

Past experience from many developing countries has shown that retrospective surveys suffer from omission of live births, especially by older women (possibly because of lapse of memory).

* Original English.

The omission may include children who have grown up and left the household or children who have died, especially those who died soon after birth. The omission of live births that occurred in the distant past leads to a bias in the measurement of fertility change. This bias is usually a deviation towards an increase in fertility on a period and cohort basis. It is this bias and the decline in infant mortality observed in many developing countries that led Bogue and Bogue to conclude that: "when the pregnancy history data is used to measure fertility change, it is a conservative evaluative technique."[1/]

The accuracy of fertility trends which are derived from the birth history data depends not only on the coverage of births, but also on the reporting of the time of occurrence of the births; i.e., the distribution of births over the childbearing period. Brass[2/] has identified two types of timing errors; the first is error in "size of reference period" and the second is error in the "location of reference period". By the first of these is meant any tendency by respondents to allocate births on the average to a shorter or longer interval than that in which they actually took place; the second is the reporting of

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1/ Bogue, D.J. and Bogue E.J. (1970). Techniques of Pregnancy History Analysis. Family Planning Research and Evaluation Manual, No. 4, Community and Family Study Center, University of Chicago, U.S.A.

2/ Brass, W. (1971). The Analysis of Maternity Histories to Detect Changes in Fertility, New York: United Nations Economic and Social Council, Document No. E/CN.9/AC.12/R.11.

births further back in time or nearer to the present than they actually occurred. Using the maternity history data for West New Guinea, Brass[1/] demonstrated that the two types of timing errors are likely to be present, leading to distortion in the estimates for fertility change. The results there show an erroneous increase in fertility over time.

Bogue and Bogue[2/] agrue that the bias introduced by event misplacement can be reduced to an acceptable low magnitude by careful interviewing and by an elaborate editing procedure. Although in most fertility surveys, attention is paid to careful interviewing, editing, and checking for the inconsistencies in the birth history data, the evidence from some studies shows that appreciable errors are present despite these efforts, particularly in nationwide surveys.

Potter[3/], in his model of event misplacement, considers only the errors in "location of reference period". In the model Potter is interested in event misplacement of a particular kind, namely events in the distant past that are telescoped by respondents towards the time of the interview, but with decreasing bias as the true date of the event comes closer to the time of

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1/ Ibid.

2/ Bogue and Bogue. Family Planning Research.

3/ Potter, J.E. (1975). The Validity of Measuring Change in Fertility by Analyzing Birth Histories Obtained in Surveys. Princeton, Princeton University, Ph.D. Dessertation.

the interview. More specifically, he assumes that early births are moved forward in time and that intervals between events are exaggerated, while recent events are correctly reported. Moreover, Potter assumes that no live births are forgotten, which may not be a plausible assumption in many situations. Also, the kind of event misplacement discussed by Potter is not always the case. An equally plausible type of event misplacement is to place births further back in time than when they occurred. Evidence from the World Fertility Survey (WFS) for Sri Lanka[1/] and from West Irian and Pacific Islands[2/] shows that older women have the tendency to place births further back in time. This leads to an overestimation of the fertility for the earliest periods preceding the survey.

The Jordan Fertility Survey of 1976[3/] (hereafter JFS) offers, for the first time, an opportunity for detailed fertility analysis in that country. The JFS was carried out by the Department of Statistics, as part of the WFS project. The JFS, carried out in the East Bank of Jordan, is a retrospective pregnancy history data for ever-married women aged 15 to 49. The information collected in that survey includes marriage histories, birth histories, breastfeeding, family planning and

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1/ Chidambaram, V.C., Cleland, J.G. and Verma V. (1980). Some Issues of Survey Methodology and Data Quality. The WFS experience. WFS/Comparative Studies No. 16.

2/ Brass. (1971). Analysis Maternity Histories.

3/ The Hashimate Kingdom of Jordan, Department of Statistics (1979). Jordan Fertility Survey, 1976. Principal Report, Volume 1, Department of Statistics, Amman.

socio-economic characteristics of respondents and their husbands. The main purpose of this paper is to examine the validity of fertility trends from the retrospective data of the 1976 survey, in an attempt to fill some of the gaps in our existing knowledge of fertility trends for Jordan. We will examine the cohort fertility (birth cohorts) in search for evidence of reporting errors in the JFS (particularly errors involving event misplacement and omission), with emphasis on features likely to characterize the data in case of errors.

FERTILITY TRENDS AND REPORTING ERRORS

In the upper panel of Table 1 we present the average number of births per ever-married woman year of exposure (exposure since first marriage) for five-year periods before the survey and for cohorts aged 15-19 to 45-49. In the lower panel of Table 1 we present the cumulated fertility rates over age for each period.

When the uncumulated rates are examined we observe the following salient points: first, for almost all the age cohorts, the marital fertility rates at ages 15-19 and 20-24 show continuous increase over time; the marital fertility rates at age 15-19 increased from 0.337 for the cohort aged 45-49 to 0.449 for the cohort aged 15-19 at the time of the interview, and the rates at age 20-24 increased from 0.403 for the cohort aged 45-49 to 0.505 for the cohort aged 20-24. Second, the rates at age 25-29 are nearly constant over the 25 years before the survey, except for the lower value in the earliest period (i.e., the period of 20-24 years before the survey). These

TABLE I. THE NUMBER OF BIRTHS PER EVER-MARRIED WOMAN AND THE CUMULATED RATES BY BIRTHS COHORTS (TOTAL SAMPLE)

Number of Births Per Ever-Married Womand by Current Age and Period

Current Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34
15-19	.449						
20-24	.505	.417					
25-29	.453	.489	.403				
30-34	.377	.455	.479	.374			
35-39	.310	.379	.432	.425	.343		
40-44	.195	.427	.427	.457	.391	.378	
45-49	.076	.343	.343	.382	.404	.403	.337

Mean Number of Children Ever Born for Birth Cohorts up to Age:

	15-19	20-24	25-29	30-34	35-39	40-44	45-49
15-19	2.245						
20-24	2.085	4.610					
25-29	2.015	4.460	6.725				
30-34	1.870	4.265	6.540	8.425			
35-39	1.715	3.850	6.000	7.895	9.445		
40-44	1.890	3.845	6.130	8.265	9.965	10.940	
45-49	1.685	3.700	5.720	7.630	9.345	10.415	10.795

observations suggest serious doubts about the exactness of reporting dates in the birth history data; they suggest evidence of event misplacement in the form of pushing forward the dates of earlier births. This is consistent with findings from other World Fertility Surveys. In a recent comparative study, Chidambaram, Cleland, and Verma concluded that:

> Displacement of births, particularly in the form of a shift by older women of distant events towards the date of the survey is a more common defect of WFS data set.1/

Third, for periods more than ten years before the Survey, reading the uncumulated rates in the upper panel down the diagonal from left to right (to compare rates for the same ages) reveals substantially higher rates for the period 10-14 years before the Survey; the exception being the rate at age 25-29 for the cohort aged 35-39 at the time of the survey. This may suggest heaping of births at the period 10-14 years before the survey.

It is worth mentioning at this point that the increasing trend in the fertility rates from earlier to recent birth cohorts noticed above may also result from omission of earlier live births. Regardless of what type of event misplacement is present, the cumulated rates up to the highest ages for cohorts are underreported if omission exists. The omission of live births can be detected by comparing the cumulated fertility rates presented in the lower panel of Table 1. It is evident

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1/ Chidambaram, Cleland and Verma (1980). Survey Methodology.

TABLE II. COHORT-PERIOD SPECIFIC MARITAL FERTILITY RATES BY BIRHT ORDER (PER EVER-MARRIED WOMEN OF EXPOSURE)

	Years Before the Survey						
Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34
			First Birth				
15-19	.292						
20-24	.151	.268					
25-29	.046	.143	.246				
30-34	.011	.048	.131	.247			
35-39	.002	.008	.044	.134	.215		
40-44	.000	.004	.009	.054	.124	.218	
45-49	.002	.001	.006	.020	.041	.117	.224
			Second and Third Births				
15-19	.154						
20-24	.264	.144					
25-29	.149	.242	.153				
30-34	.047	.133	.260	.122			
35-39	.010	.053	.144	.214	.127		
40-44	.004	.013	.049	.171	.192	.145	
45-49	.003	.004	.017	.056	.137	.211	.109
			Fourth and Fifth Births				
15-19	.003						
20-24	.080	.005					
25-29	.160	.092	.004				
30-34	.093	.178	.081	.005			
35-39	.038	.110	.162	.065	.001		
40-44	.010	.036	.122	.158	.063	.015	
45-49	.003	.013	.051	.109	.151	.068	.004
			Sixth and Higher Birth Orders				
15-19	.000						
20-24	.008						
25-29	.097	.011	.000				
30-34	.227	.096	.007	0.000			
35-39	.261	.207	.083	.006	.000		
40-44	.181	.287	.074	0.074	.012	.000	
45-49	.073	.196	.200	.200	.074	.007	0.000

that the cumulated fertility rates for the cohort whose current age is 40-44 are much higher than the corresponding measures for the cohort whose current age is 34-49, and this holds true for all ages; the difference is about 0.60 of a birth at age 30 and over. A similar conclusion is noticed when the cumulated rates for the 40-44 and the 30-34 birth cohorts are compared, the rates being higher for the younger cohort than for the older cohorts at all ages. Under the plausible assumption of no increase in marital fertility over time, the above observation indicate omission of live births by older women.

The search for further recognizable symptoms of event misplacement in the JFS could be undertaken by examining the fertility rates by birth order. Four categories of birth order are used, namely, (a) first birth order; (b) second and third birth order; (c) fourth and fifth birth order; (d) sixth and higher birth order. The rates presented in Table II are simply the decomposition of the rates for the total sample shown earlier in Table 1.

As for the case of the total sample, the fertility rates by birth order reveal similar conclusions; respondents tend to push earlier births toward the date of the interview. For instance, the marital fertility rates at age 15-19 for first birth order (Table II, panel 1) increased from 0.224 for the cohort aged 45-49 (at the time of the survey) to 0.292 for the cohort aged 15-19. The marital fertility rates at age 20-24 for the second and the third birth order (Table II,panel 2) increased from 0.211 for cohort aged 45-49 to 0.264 for cohort aged 20-24.

Event misplacement can also be detected by comparing the mean age of women at the birth of first, and second and third child for different birth cohorts of women. If women tend to push earlier births toward the date of the interview, the older cohorts are expected to report older fertility. In other words, older cohorts of women will show higher mean age of women at birth of first child, and other birth orders compared to younger cohorts of women.

Since most of the first, second and third birth orders occur before age 35 (see Table II panels 1 and 2), fertility rates for the earliest four cells in the first and the second panels of Table II can be used to estimate approximately the mean age of women at birth of the first child, and at birth of the second and third child, respectively. The following computing formula may be considered as a good approximation for the mean age of women at birth of the first child and at birth of the second and the third child:

$$M = \frac{\sum_{i=15}^{i=30} iR_i}{\sum_{i=15}^{i=30} R_i}$$

where R_i refers to the age specific marital fertility rate corresponding to the cell centered on exact age i.

The estimates of the mean age of women at birth of the first, second and third child are shown in Table III. The estimates

conform with our expectations; older cohorts of women tend to have higher mean age at birth of the first, second and third child compared to younger cohorts. The estimated mean age of a woman at birth of her first child increased from 18.0 for women aged 30-34 at the time of the survey to 18.3 for women aged 45-49. The mean age of a woman at birth of the second and third child increased from 20.9 for the 30-34 birth cohort to 21.4 for the 45-49 birth cohort.

Table III. MEAN AGE OF WOMEN AT BIRTH OF FIRST, SECOND AND THIRD BIRTH BY AGE OF WOMEN AT THE TIME OF THE SURVEY

	Birth Order	
Women Age	First	Second and Third
30-34	18.0	20.9
35-39	18.1	21.1
40-44	18.2	21.1
45-49	18.3	21.4

Table IV shows the number of births per woman and the cumulated fertility rates by birth cohorts for the first birth order. Note that the fertility rates in the first panel of Table IV are obtained by inflating the marital fertility rates in the first panel of Table II by the proportions ever-married at the time of the interview, obtained from the 1976 Household Survey (Department of Statistics, 1979). The cumulated fertility rates in the lower panel of Table IV show the mean parities achieved at

different age groups for each birth cohort. The rates in Table IV reinforce our conclusions regarding omission and event misplacement in the JFS. For instance, the cumulated rates in the lower panel of Table IV show that at comparable ages, the proportions of women who become mothers are significantly higher for younger cohorts; the proportions who become mothers by age 30-34 are 0.925 for the 30-34 cohort and 0.825 for the 45-49 cohort. The proportions of women who become mothers by age 25-29 are 0.90 and 0.775 for the cohorts aged 25-29 and 45-49, respectively. These results suggest additional evidence for misreporting first births by older women.

Table IV. THE NUMBER OF BIRTHS PER WOMAN AND THE CUMULATED FERTILITY RATES BY BIRTH COHORTS

Number of First Births Per Woman by Current Age and Period							
Current Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34
15-19	.057						
20-24	.097	.052					
25-29	.040	.092	.048				
30-34	.011	.042	.084	.048			
35-39	.002	.008	.039	.086	.042		
40-44	.00	.004	.009	.047	.079	.043	
45-49	.002	.001	.006	.010	.036	.075	.044

Table IV (Cont'd)

CURRENT AGE	CUMULATED RATES BY BIRTH COHORTS UP TO AGE: 15-19	20-24	25-29	30-34	35-39	40-44	45-49
15-19	.285						
20-24	.260	.745					
25-29	.240	.700	.900				
30-34	.240	.660	.870	.925			
35-39	.210	.640	.835	.875	.885		
40-44	.215	.610	.845	.890	.910	.910	
45-49	.220	.595	.775	.825	.855	.860	.870

RECENT FERTILITY TREND

From the previous discussion, it becomes evident that a firm judgment about the earlier fertility trend in Jordan is not possible due to biases introduced by event misplacement and omission. However, the fertility rates during the ten-year period before the survey seem to be less affected by reporting errors. When the fertility rates in the diagonal cells of the upper panel of Table 1 for the ten-year period before the survey are compared, we notice the following: (a) except for the 15-19 age group, the marital fertility rates at younger ages (below age 35 remain fairly constant during the ten-year period before the survey; (b) at older ages, the rates show a modest decline during the same period. The crucial question is whether this modest decline in the recent period represents a real change in

Table V. NUMBER OF BIRTHS PER EVER-MARRIED WOMAN BY BIRTH COHORTS AND CONTRACEPTIVE USE

Current Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34
			"Non-Users"				
15-19	.441						
20-24	.508	.387					
25-29	.473	.463	.374				
30-34	.402	.439	.431	.339			
35-39	.357	.387	.412	.379	.348		
40-44	.225	.364	.387	.401	.348	.309	
45-49	.077	.212	.329	.359	.381	.376	.347
			"Users"				
15-19	.491						
20-24	.500	.471					
25-29	.426	.522	.436				
30-34	.351	.472	.531	.414			
35-39	.254	.369	.471	.478	.336		
40-44	.161	.313	.471	.519	.448	.460	
45-49	.077	.217	.367	.422	.446	.454	.323

fertility behavior at older ages or whether it is an artifact of reporting errors. This question can be addressed by comparing the fertility rates for the "users" and the "non-users" of contraceptive methods. If the decline in the fertility rates during the recent period is noticed for the group of "non-users" rather than the "users", it is more likely that reporting errors are responsible for the recent fertility trend observed in Table 1. The cohort-period marital fertility rates for the two subgroups of the sampled populations are shown in Table V. When the comparison is restricted to the fertility rates in the diagonal cells for the ten-year period before the survey, we notice an increasing trend over time for the group of "non-users" (upper panel of Table V); and this holds true for almost all age groups. The corresponding comparison for the group of "users" (lower panel of Table V) shows significant fertility decline across all age groups; the exception being the 15-19 age group. The decline is more significant at older ages. For example, the rates at age group 40-44 declined from 0.217 for the 45-49 birth cohort to 0.161 for the 40-44 birth cohort. Also, at age group 35-39, the fertility rates declined from 0.313 for the 40-44 birth cohort to 0.254 for the 35-39 birth cohort. The fact that the recent decline in marital fertility (during the ten years before the survey) is observed only among the group of "ever users" may indicate that the recent decline in marital fertility for the total sample represents a real change in fertility behavior (at younger ages) as opposed to reporting errors.

In Jordan, the vital registration was introduced in 1926 and since that time the completeness of registration (especially birth registration) has continued to improve. In a recent study, Nur[1/] has examined the completeness of birth registration in Jordan, and he concluded that the birth registration around 1976 is about 90 percent complete. Nur's conclusion is consistent with the United Nations findings; according to the United Nations publications[2/], the completeness of birth registration during the seventies is at least 90 percent using registered births (excluding foreigners but including Palestinian refugees) and population estimates, the United Nations demographic year books provide a series of crude birth rates since 1952. These crude birth rates are presented in Table VI. It is worth noting here that the rates after the year 1966 exclude data for the West Bank which is under Israeli occupation since June of 1967. Except for a few fluctuations, the rates show continuous increase over time from 1952 to 1966, probably due to improvement in birth registration. The substantially lower crude birth rates for the years 1967 and 1968 could be attributed to the effects of the 1967 War; underregistration is the most plausible explanation. After 1968, the rates remain fairly constant except for a slight decline during recent years. This recent fertility trend is consistent with the trend revealed from the birth hsitroy data during the ten-year period before the survey.

1/ Nur, H.A. (1981). On the Validity of Fertility Analysis for Jordan. Ph.D. Dissertation, University of Michigan, Ann Arbor.

2/ UN. (1975). Demographic Year Book, 1975. UN. New York.

Table VI. CRUDE BIRTH RATES (PER 1,000), FROM VITAL REGISTERATION. JORDAN, 1952-1975

Year	Rate
1952	35.0
1953	36.0
1954	38.0
1955	40.0
1956	37.4
1957	39.7
1958	44.0
1959	38.9
1960	46.3
1961	41.6
1962	49.7
1963	46.3
1964	45.5
1965	46.5
1966	46.2
1967*	34.8
1968*	33.1
1969*	44.2
1970*	46.1
1971*	45.1
1972*	45.9
1973*	45.5
1974*	43.8
1975*	43.7

Source: U.N. Demographic Yearbooks 1952-1978, New York.

* The rates exclude data for West Bank territory under the Israeli occupation since June 1967.

The age-period fertility rates during the five-year period before the survey indicate that Jordanian women would bear in excess of seven children between age 15 and 49. This fertility level is extraordinarily high compared with estimates for neighboring Arab countries and with other developing countries. For example, the 1976 Demographic Survey in Nabatieh district of Southern Lebanon[1/] and the 1976 sample census of Syria[2/] reveal total fertility rates of 4.7 and 5.94 per woman, respectively.

In sum, the analysis of marital fertility by birth cohorts (from the JFS) provides convincing evidence of omission and event misplacement in the form of pushing earlier events towards the date of the interview. These errors resulted in too low estimates of fertility for the more distant periods. When the fertility rates for the total sample are decomposed by birth order, the results reinforced our conclusions regarding event misplacement and omission in the JFS. For the decade preceding the survey, the data appear to be correctly reported, and the analysis shows that the fertility rates remain fairly constant (at a high level) except for a modest decline among older women. The recent fertility trend (i.e., during the ten years before the survey) from the birth history data is found to consistent with the trend obtained from birth registration.

1/ Zurayk, Huda (1980). Levels and Trends of Fertility and Mortality in South Lebanon. Levels and Trends of Fertility and Mortality in Seclected Arab Countries of West Asia. Abu Jaber (ed.). The Population Studies Programme, University of Jordan.

2/ Hallak, M. and Hill A. (1980). Levels and Trends of Fertility and Mortality in the Syrian Arab Republic. Ibid.

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BOOK REVIEWS

Determinants of Fertility Trends: Theories Re-Examined. Seminar held in Bad Homburg (F.R.Germany), 14-17 April 1980. Edited by Charlotte Höhner and Rainer Machensen, International Union for the Scientific Study of Population, Liège, Belgium, 1980, 311 pp.

This book contains a series of papers presented to a seminar on "Determinants of Fertility Trends: Major Theories and New Directories." The Seminar, with its 15 research papers, was intended to be a scientific forum for the presentation of research and exchange of views among specialists concerned with theories of reproductive behaviour. It also intended to provide an opportunity for comparing and discussing the newly emerging fertility decline theories with a view to a better understanding of the hypothesis upon which they have been based, of the modes of their formulation and of the prevailing trends in this field. The book starts with an introduction delineating the purposes of the seminar and including a brief summary of the main thesis in each paper.

The paper in their treatment of fertility trends utilized data from both industrialized and developing countries and encompassed in their approach the structuralist, the normative and the micro-economic theories. The content of the topics reflected a serious attempt to go beyond the conditions of demographic situations to explore the reasons and factors responsible for the change in trends and for variance and differentials in fertility in the short- and long-term.

One of the most significant conclusions of this seminar has been the assertion that at the present stage of knowledge, there is no single general theory of fertility determinants which could provide an integrated explanation for fertility trends and reproductive behaviour as a whole. It is deemed desirable, therefore, to pursue different theories interlinking the diversified factors, e.g., economic, social, cultural and demographic variables in addition to those of

everyday living conditions and individual disposition. This necessitates further studies on the macro-structural level as well as on the level of groups and individuals.

It seems also desirable, as the papers of the seminar indicate, that research efforts should be undertaken to delineate more precisely the systems of classification and to avoid mixing up events (the act or decision to marry, have children, to use contraceptives), units concerned with these events (individuals, couples, family, social classes, etc.), abstract concepts (attitudes, values, norms, etc.) and disciplines of classification (sociology, psychology, economics, etc.).

The last essay in the book entitled "Overview," reiterates the fact that, at present, there is no unitary theory for explaning fertility determinants. It further points out that most of the quantitative analysis can help to explain at best 20 per cent of the phenomena due to the long list of relevant variables, many of which cannot be quantified. An attempt was also made to provide some suggestions for future research which emerged from the discussions of the Seminar.

Theory of Fertility Decline. By John C. Caldwell, Academic Press Inc. Ltd., London, 1982, 386 pp.

The book includes a series of papers written during the second half of the seventies and early eighties. It records the steps through which "the wealth flows" theory of fertility decline was developed by the author. This newly developed theory, though as indicated by Mr.Hammel in the Editor's Preface for the book, "may be wrong in some respects," marks an innovation in fertility change and demographic transition. It introduces interpersonal relationships among generations to the already known economically oriented population transition theory.

Starting from the fact that socio-economic patterns of societies cannot be assumed to be similar everywhere in the world, Mr.Caldwell proceeds to develop his new theory. Through anthropoligical oriented socio-demographic research in the Third World countries, he deleniates that it is not enough to base the theory of population transition on socio-economic factors as attributes of societies. Societies differ in their expectations and explanations of socio-economic conditions and thus have different socio-economic ends, meanings and values. Consequently, they manifest differences in patterns of socio-

economic interpersonal relationship, especially within the family unit, which is society's basic socio-economic institution.

Thus the theory presented in the book postulates that fertility levels in a society are directly connected to the patterns by which "wealth", both social and economic, is interchanged (flows) between family members and generations: hence the name "wealth flows" theory. In other words this theory suggests that population transition is a function of changes in the direction and magnitude of interpersonal and especially intergenerational "wealth flows," and that changes in patterns of wealth flows affect changes in fertility levels. Whereby, societies in which wealth flows primarily from children to parents are high fertility societies, and transition is change in the direction of both social and economic wealth flows: less from children to parents and more from parents to children.

A good part of the book is spent on testing this theory against both historical and Third World data. Specific difficulties arizing from its application are thus discussed for the purpose of developing it further into a totally comprehensive theory of fertility decline.

The Social Cost of Small Families and Land Reform: A Case Study of the Wataita of Kenya. By George C. Mkangi, Pergamon Press, London, 1983, 162 pp.

This book deals with the impact of Western based development models on Third World poor communities. It focuses on two such modernization and their policy implications. The two selected models are: the institution of individualistic private property and the small family norm and their introduction among the "Wataita," the inhabitants of the Taita Hills in Kenya.

The study examines the social cost that the community of Taita had to pay when changed from "being community centered and kin-oriented to becoming individualistically-based with small nuclear families." It delineates, through micro-sociological methods of study, that land reform and family planning failed to eradicate poverty, which is the core of developmental goals. Instead, these measures have created socio-psychological problems producing negative results on family planning programmes.

The study shows that private land tenure has created unprecedented barriers between families, thus upsetting the balance of community support traditionally available. Land reform with its new base of production has also brought about unknown economic inequalities as it has benefited only a few. The majority has been left with a changed economic system that does not provide the desirable sources of security. Instead, they saught this security in having more children.

The implication is that economic development measures which are imported from the West might disturb Third World communities without achieving basic economic self-sufficiency among local people and that this in turn could have an inverse effect on family planning objectives.

Al-Hijra Ila Annaft [Emigration to the oil]. By Nader Fergany. Centre for Arab Unity Studies, Beirut, 1982, 263 pp.

This book is one of a series of recently published serious studies dealing with the size, characteristics and impact of emigration to the Arab oil-producing countries. These studies examine the various issues involved in the formulation of a rational policy for Arab labour movement, that should guide the establishment of the necessary conditions required for an integrated and effective development in the Arab world.

The book presents a new and daring view point, stating that "the appraisal of the effects of internal migration in the Arab world on the possibilities of national development...is heavily loaded with problems." In the final analysis, such an appraisal shows that "the effect of immigration to the oil states on the socio-economic structure in the Arab world is negative, especially if conceived in a long term perspective." The author arrived at this conclusion in the light of a delineated definition of development, which stresses its Pan-Arab dimensions. The conclusion takes into consideration the interrelatedness of this immigration phenomena to the socio-economic variables and its role within the context of the political economy in the Arab region.

In the Introduction of the book, the author defines development as "a cultural renaissance that leads to the promotion of the socio-economic system towards higher levels of human welfare." It is within this framework that a real assessment of the effects of immigration, especially in the long term and in their relationships with international variables and pressures, can be

properly assessed in both the sending and receiving countries.

In the first chapter, the author underscores the importance of understanding the immigration phenomena within the context of economic and political developments which are taking place at the Arab level, in particular, and at the international level, in general. He further discusses the basic characteristics of the political economy of the late sixties and early seventies in the Arab world. In this respect, he concludes that the immigration phenomena was concommitant with some major political and international developments on the Arab scene, as well as with the significant increase of oil revenues and money surpluses resulting from the adjustment of oil prices in 1973.

In the second chapter, the author concentrates on the effects of emigration in two labour exporting Arab countries, namely, Egypt and North Yemen. In the case of Egypt, the migratory movement to the oil countries has passed through three distinct stages which differ in their respective size, causes and impact. The author proceeds to provide significant details of the third stage, which has started since 1973, and has witnessed the exodus of huge numbers to the Gulf states. The large size and magnitude of this stage is attributed to the abolition of restrictions on emigration, which accompanied the so called economic liberalization policy. This results, the author points out, in Egypt being largely emptied from its young productive manpower and in a serious imbalance in its wage and labour force structure.

As for the case of North Yemen, the effects of emigration were, likewise, negative. It has resulted, for example, in a reduction in the supply of manpower and skill, a situation which has led to a number of vacancies in government posts. This has, also, directed planners in Yemen to favour capital-intensive and import oriented projects as well as to encourage the importation of foreign labour. Labour migration from Yemen is also closely connected to the deterioration of the agricultural sector exemplified in the reduction of both cultivated areas and live stock. It has, also, resulted in the deterioration or neglect in the farming of marginal planteans which has constituted a traditional capital socially formed through the centuries.

In the third chapter, the author discusses two countries which receive manpower, namely, Kuwait where most immigrants are Arabs and the United Arab Emirates where most immigrants are Asians. In both cases, he expounds on the relationships between immigration and population and manpower developments, focussing, in particular, on the consequences of immigration on the development of the building sector in the Kuwait economy and on the socio-economic components of the population and manpower situation

of the United Arab Emirates. In latter cases, the author notes that immigration constitutes a danger to the cultural identity of the country. In addition, he observes that the availability of foreign labour force has encouraged nationals to refrain from many forms of production work, especially manual labour and seek easy government positions. It has also resulted in the absence of any reasonable corrolation between effort in labour and its renumeration, and in immigrants shouldering the responsibility of production work.

The fourth chapter deals with the phenomena of emigration from the general Pan-Arab perspective. He first introduces a statistical profile cited in a study conducted by the World Bank, which he considers as one of the most important studies in this field, despite reservations regarding some of its computed estimates. Then, the author, in his profile of Arab immigration, underlines the negative effects of emigration to the oil-producing countries on the over-all Pan-Arab development, as viewed in terms of his own definition of this development elucidated in the introduction of this book. In this connection, the author stresses that immigration resulted in "widening the socio-economic gap between labour exporting countries on the one hand, and labour importing countries on the other, due to the depletion of human resources in the former and the relatively greater benefit reaped by the latter. Immigration also fosters a low level of social productivity in oil-producing countries, instead of enabling them to institute truely integrated economic activities that would assist in launching Arab development." This is not withstanding what this type of immigration has engendered in terms of development-deterring values and orientations towards productive labour in both labour-exporting and labour-importing countries. This has been accomplished by encouraging consumerism, particularly the consumption of imported commodities, based on imitating patterns in industrialized countries.

If immigration, as a mechanism, has contributed towards the emergency of these negative aspects on Arab development, the author, nevertheless, stresses enormous positive effects which could accrue throughout the Arab world if the emigration movement between Arab countries, was well organized within the framework of a broader, integrated Arab perspective. Here the author calls for "liberating" the exchange of human resources within the Arab world. He further proposes that this should take place in two stages, the first comprising temporary exchange during which the development of the labour force and the provision of facilities for its movement within the Arab countries are

achieved. The second stage would address itself to strengthening the bases of the exchange of human resources with a view to achieving permanent settlement.

In conclusion, the author relates the current pattern of the loss-laden migratory movements to the existing socio-economic formations in the Arab countries, asserting that increasing the benefits of migration and curtailing its risks, necessitates effecting a fundamental change in these socio-economic systems. This, in turn, should lead towards adopting an integrated Arab perspective towards development, where human resources play a crucial role. This change should involve, inter-alia, the exchange of production factors including the flow of capital and investment, along side the flow of the labour force.

ANNOUNCEMENTS

International Conference on Population, Mexico, 6-13 August, 1984

In response to resolution 87/1981 of the United Nations Economic and Social Council, the United Nations has undertaken preparations for the International Conference on Population to be convened in Mexico from 6-13 August 1984. The convening of this conference comes a decade after holding the World Population Conference in Bucharest, Rumania, 1974.

The main objective of this conference is to review, appraise and implement the World Population Plan of Action, which was adopted by the Bucharest World Population Conference. This plan comprises several chapters which covered, extensively, all the demographic and soci-economic aspects of the population problem at the national, regional and international levels. The basic issue underlined in this plan lies in stressing respect for the individual and the freedom of peoples in choosing the socio-economic pattern that would ensure the amelioration of their standard of living. The said plan, also, denounced all types of discrimination between peoples assuring that: "The growing interdependence among nations makes international action increasingly important to the solution of development and population problems."

In the context of preparing for the International Conference on Population in Mexico, the United nations adopted a series of technical and procedural measures that aim at ensuring success for this conference and at formulating the appropriate recommendations and resolutions which are commensurate with the magnitude and gravity of the population problem.

These preparations included, inter-alia, the convening of four technical meetings for studying the important aspects of population issues. A host of eminent experts and specialists were invited to participate in these meetings in addition to United Nations bodies and specialized agencies. These meetings were as follows:

- Fertility and the Family: New Delhi, 7-11 January, 1983.
- Population Distribution, Immigration and Development: Tunis, 21-25 March, 1983.
- Population, Resources, Environment and Development: Geneva, 25-29 March, 1983.
- Mortality and Health Policy: Rome, 30 May-3 June, 1983.

Furthermore, at the beginning of 1983, the United Nations extended official invitations to all countries throughout the world to participate in the International Conference on Population in Mexico. It also urged these countries to mobilize national efforts, at both the governmental and non-governmental levels, in order to disseminate information about the importance of population issues and their interaction with all other aspects of life.

At the regional level, the United Nations, in the aforementioned resolution, called upon its five Regional Commissions to convene regional conferences in order to formulate a comprehensive population position for their respective regions and to present a resumé thereon to the International Conference on Population in Mexico. Accordingly, the Economic Commission for Western Asia, in cooperation with the Secretariat of the League of Arab States, held the Regional Population Conference in the Arab World in Amman, Jordan, from 25 to 29 March 1983. A summary of its organization and results will follow.

The Regional Population Conference in the Arab World, Amman, 25-29 March, 1984

This conference was held within the context of the preparations for the International Conference on Population which was introduced earlier. It was cosponsored by the Secretariat of the Economic Commission for Western Asia and the General Secretariat of the League of Arab States, Tunis. The conference aimed at giving the Arab countries the opportunity to participate in reviewing in a comprehensive manner the overall population situation in the Arab world, stock taking of accomplishments and developments in terms of population conditions in the Arab region in the light of the World Population Plan of Action adopted by the Bucharest Conference in 1974. The conference also aimed at formulating common positions and orientations vis-à-vis current and future population problems in the Arab region with a view to providing a regional contribution to the Mexico International Conference on Population.

Amman Conference was attended by official delegations representing: Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Mauritania, Morocco, Oman, Palestine Liberation Organization, Somalia, Syria, Tunisia, Democratic Yemen and Yemen Arab Republic.

The participatns also included a number of experts who were selected to prepare working and background papers. Also among the observers were representatives of a number of regional Arab organizations, the United Nations and its specialized agencies and non-governmental organizations. Attendance also included observers from non-Arab countries members of the United Nations, as well as some academic organizations and personalities concerned with population issues.

The conference was opened by Crown Prince Hassan of Jordan, who in his inaugural address stressed the importance of the conference to Jordan and to the Arab region as a whole. Mr.Muhammad Al-Nasir, Chief of the Executive Bureau of the Council of Arab Ministers of Social Affairs and Head of the Delegation of the Secretariat of the League of Arab States and Mr.Rafael Salas, Executive Director of the United Nations Fund for Populaton Activities also addressed the participants at the opening session.

The agenda for the conference contained the following items:

I. Review and appraisal of the implementation of the World Plan of Action (Bucharest 1974) in the light of the achievements made by the countries of the Arab world in the population field during the past decade.
II. Population and development:issues and dimensions.
III. Population and the basic needs sectors.
IV. Population information and documentation systems.
V. Population and socio-economic development in the Arab world.

The conference concluded its work and its deliberations by adopting the Amman Declaration on Population in the Arab World as well as approving its Final Report. The complete text of the Declaration is cited at the beginning of this Bulletin.

The Arab Parliamentary Seminar on Development and Population: Tunisia, 8-11 May, 1984

This Seminar was held in Tunisia from 8-11 May 1984 upon the invitation of the Global Parliamentary Committee for Population and Development in cooperation with the Tunisian

Parliament. It was attended by official delegations from Algiers, Djibouti, Egypt, Iraq, Jordan, Kuwait, Mauritania, Morocco, Oman, Palestine Liberation Organization, Saudi Arabia, Sudan, Syria, Tunisia, Democratic Yemen and Yemen Arab Republic. The delegates were from Arab Parliamentarians and senior officials in Arab countries. The Seminar was also attended by consulting and supproting organizations including the League of Arab States, the Islamic Conference, the United Nations Development Programme, the Economic Commission for Western Asia, United Nation Children's Fund, United Nations Educational, Scientific and Cultural Organization, the World Health Organization, the World Bank and the International Union for Planned Parenthood. It was also attended by observers from parliamentary unions and the Asian Parliamentary Club for Population and Development, in addition to other observers and media representatives.

The Seminar discussed the current state of development and population in the Arab world against the background of the working papers which were presented at the Seminar. The discussions resulted in the formulation and adoption of the Tunis Declaration on Population and Development in the Arab World. This Declaration comes in four parts comprising an "Introduction" which highlighted the current situation of development and population in the Arab wrold, followed by the "Preamble" governing the frameworks of population development in the Arab world, the "Recommendations" which propose specific policies and orientations for strengthening and guiding the efforts required in confronting population issues within the context of comprehensive development and, finally, a section dealing with "Call for Action." This last section calls on Arab parliamentarians and governments as well as Arab regional and international organizations to exert additional efforts for confronting the challenges posed by the population question in all its aspects and interactions with development issues in the Arab world. Here it is worth noting that the "Tunis Declaration" was in harmony with the "Amman Declaration" in its contents, spirit and overall view of the population question in both its quantitative and qualitative orientations and its close interaction with the internal and external challenges of development in the Arab region.

The Results of the 1974 Housing and Population Census in Jordan

The results of the general census for housing and population conducted in October and November 1979 were issued by the Department of General Statistics in Jordan.

This census, actually, comprises two censuses: the Building and Housing Census which was carried out from 1-21 October 1979 and the Population Census which was carried out from 1-15 November 1979. The census falls in two volumes.

According to this census, the Jordanian population reached 2,100,019 in 1979, of whom 2,011,051 are Jordanians. It is worth noting that this is the fourth census conducted in Jordan. The first one took place in 1952, the second in 1961 and the third in 1975.

The Results of the 1981 Housing and Population Census in Syria

The Central Bureau of Statistics in Syria recently issued the preliminary results of the housing and population census in Syria, the field work of which (the enumeration) was conducted from 8-18 September 1981. This census was the third of its kind and it followed the 1960 and the 1970 censuses. It is worth noting here that the preliminary results included some significant details which would assist in determining the most important demographic developments in the country during the past decade.

Possibly, the accelerated population growth is one of the main developments that was brought to the forth by the results of this census. The calculated rate of population growth during the period 1970-1981 amounted to approximately 34 per thousand which is considered one of the highest growth rates in the world. This rate, also, exceeds the corresponding calculated rate for the past decade 1966-1970, which amounted to 32.8 per thousand.

Though the reasons behind the accelerated population growth in Syria during the past years are many, the population momentum may have played a major role in this acceleration. This is in addition to the sharp reduction in mortality rates (particularly among infants and children) and the slight reduction in fertility rates, as evidenced in several specialized population studies.

The preliminary results of the 1981 census were published in consecutive bulletins, comprising basic population data at the level of the smallest population unit in each governate. The data included the following information items: names of population units, number of houses according to occupancy (occupied, vacant, incomplete), number of families and number of population according to sex. The final results which will

include population characteristics are expected during the forthcoming months.

Prizes for Arab and International News Papers and News Agencies Providing Information in the Field of Population

A number of Arab and International information media won awards for distinguishing themselves in the area of conducting investigations and reports dealing with population issues. These prizes were awarded by the Population Institute in Washington D.C., U.S.A.

Representatives of these agencies received their honorable mention and their awards during the course of the Regional Conference in Amman, March 1984. The prizes were awarded by Mr.Warner Fornos, President of the Population Institute in Washington, during a ceremony held for the occasion. Mr.Fornos stressed the importance of mass media and communication in treating and dissiminating population and development issues. Mass media, he added can play an important role in dealing with some of the negative effects of population growth in developing countries.

The recipients of the awards included Al-Ahram newspaper of Egypt, Sawt Ash-Sha'b and Majallat At-Tanmiya of Jordan, Akhbar Al-Khaleej of Bahrain, Amman Times of Jordan, Arab Times of Kuwait and Al-Bayan of Morocco. The prize dedicated for the most reliable news agency in Africa went to Reuter. Finally, Mr.Roushdi Al-Heneidi, Chief Middle East Branch, United Nations Fund for Population Activities, received an award in recognition of his efforts within the region in the field of population.