Distr. GENERAL
E/ESCWA/POP/1993/4
8 August 1993
Original: ENGLISH

UNITED NATIONS
ECONOMIC AND SOCIAL COMMISSION FOR WESTERN ASIA
Social Development, Population and Human Settlements Division

POPULATION SPATIAL DISTRIBUTION

The opinions expressed in the various chapters of this publication are those of the authors and do not necessarily reflect those of the United Nations.

This publication has been issued without formal editing.

93-0545

CONTENTS

Foreward

This publication presents some issues concering the relation between the level and trend of urbanization and population distribution policies within the context of social and economic development.

United Nations projections indicate that the ESCWA region is, in general, highly urbanized. More than 50 per cent of the population of ten out of the thirteen ESCWA countries live in urban areas. Bahrain, Kuwait, Lebanon, Qatar, and United Arab Emirates have very high ratio of urbanization ranging from 81 to 88 per cent of the total population. Major urban agglomerations in the ESCWA region are usually metropolitan areas formed around the capital city and include the large part of the urban sector as well as the significant proportion of the total population.

While many government officials, demographers and sociologists realize that urbanization by itself is not a sufficient factor to induce significant economic and social change, they continue to view urbanization as a necessary condition for development. Paragraph 17 of the **Mexico Declaration on Population and Development**, states that urbanization entails many costs as well as benefits and that it is important to assess and evaluate policy priorities on a continuing basis so as to identify regularly what needs to be achieved against the expected best way to achieve it within the constraints of limited resources.

The first study included in this publication, written by David F.Sly and Willian J. Serow entitled "Population Redistribution in The Context of Rapid Population Growth: The Urbanization of the ESCWA Region 1950-2000", presents an analytical approach of urbanization and population redistribution on the regional level. The first part of this study focuses on the general level and trend of urbanization in the ESCWA region giving particular attention to two main issues. First, it places the process of urbanization in the region as an aggregate within a global context of world urbanization. Secondly, it examines the varied levels and trends of urbanization in individual countries of the ESCWA region and their position within a regional context of urbanization. In the second part of the study some concomitants of urbanization within the region are identified. Finally, the third part presents a broad overview of the population distribution policies of each country of the region.

The second study by Heba Nassar, entitled "Population Spatial Distribution Policies in Egypt", discusses the experience of Egypt in terms of the substantial redistribution of its population from rural to urban areas, and the population spatial distribution policies which have emerged as a result. The central questions which guided the approach of this study are: (1) Were population distribution policies effective in attaining spatial distribution goals; (2) What factors can help us better understand why some policies are a success and others are unsuccessful; and (3) How does the socio-economic context influence the effectiveness of redistribution policy?

In answering these questions, this study is divided into three parts. Part one examines the pattern of population distribution in Egypt focusing on its changing nature and the mechanisms underlying this change; part two presents an analysis of the policies affecting the redistributional trends identified in part one; part three is a summary of the major findings and a set of recommendations.

The third study by Musa Samha, entitled "Population Spatial Distribution Policies in Jordan", discusses population growth and urban change in Jordan within the context of their demographic history which was influenced by geographic, economic and political factors, with special reference to forced migration which contributed to Jordan's high rate of population growth.

The fourth study by Mostafa El-Shalakani and Amal Al-Sabah, entitled "Population Spatial Distributions Policies in Kuwait", reviews population change in Kuwait and identifies four major specific factors influencing population growth, with special consideration to the predominance of international migration. The paper discusses also the level and trend of urbanization showing the factors affecting population concentration. Finally, it discusses population spatial distribution policies and recommendations in the light of long term urban growth strategies and goals.

The fifth study by Abdullah Al-Khalifeh, entitled "Population Spatial Distribution Policies in Saudi Arabia", reviews the country's population spatial distribution policies which contributed to the current pattern of population distribution, in Saudi Arabia. The paper first comments on the state of the available data on population distribution then it examines in more details the growth of the population and the level and trend of urbanization. Finally, it focuses on the explicit and implicit policies which have directly and indirectly shaped the current spatial distribution of population in the country.

By publishing this study, the Social Development, Population and Human Settlements Division hopes that it would constitute a useful addition to the literature on the subject of spatial population distribution, which, inspite of its importance, remains an inadequately addressed issue in the ESCWA region.

Social Development, Population
and Human Settlements Division

Population Redistribution in the Context of Rapid Population Growth: The Urbanization of the ESCWA Region 1950-2000

*David F. Sly and Willian J. Serow**

* *Center for the Study of Population, Florida State University, U.S.A.*

INTRODUCTION

Following the first World Population Conference and through the 1970's there was a great deal of interest in the level and trend of urbanization in the World and its individual countries and regions (Davis, 1972; Goldstein and Sly, 1977: 11 - 32). There can be no doubt that this interest was well founded not merely because the level of urbanization had been changing at a rapid pace in many countries of the world, but also because this change signaled and raised a number of important questions relating to population distribution problems and social and economic development, and how policy might best facilitate the latter from the former (Portes, 1979). Within the context of development generally (Tabbarah, 1982; Abu-Lughod, 1984) and urbanization in particular (Al-Qutub, 1984) these issues were discussed and debated as they apply specifically to the Arab countries, but countries in other parts of the world were scrutinized as well (Obudho, 1985).

In many circles it was believed that the increasing number of urban centers and the greater concentration of population in these centers would lead to fundamental changes in economic structure ranging from changes in the economic base of countries (from agricultural to industrial service) to income redistribution and enhanced productivity (Berry, 1981: 74 - 114; Dabla, 1986). These changes were expected to be facilitated by and contributed to by rising levels of education and a rising quality of life all of which it was believed would be more effectively and more efficiently achieved with greater population concentration. Urbanization, it was believed, was a key to unlocking the road to broader social and economic development.

While many individuals and governments readily realize that urbanization in and of itself is not a sufficient condition for significant economic and social change they do continue to view it as a necessary condition. Indeed, more governments list population distribution problems as their major population concern than any other demographic issue (Preston, 1979). It is now clearly realized that urbanization entails many costs as well as benefits and that with it policy priorities need to be reassessed and evaluated on a continuing basis considering what needs to be achieved against the expected best way to achieve it with limited resources (see paragraph 17 of the Mexico City Declaration on Population and Development). Building and maintaining an urban infrastructure frequently can be achieved only on a limited scale and with the diversion of resources from rural populations. Moreover, the building of large urban projects, increasingly necessary to compete in a global economy, frequently creates a situation where loans must be secured from the West and Western contractors must be hired leaving a country not merely with a debt, but also a situation where much of the borrowed capital has flowed to external sources.

Issues such as these do not imply that population distribution policies generally and urbanization policies in particular should not be vigorously pursued by governments. Quite the opposite, they imply that monitoring and understanding the urbanization process and developing policies to maximize its benefits and minimize its costs will be the most expeditious path to broader social and economic development (Sly, 1988). Accordingly, in the first part of this Chapter we focus on the general level and trend of

urbanization in the Region giving particular attention to 1) how the course of urbanization within the Region as an aggregate fits within a global context of world urbanization, and 2) how the level and trend of urbanization within individual countries of the Region have varied and and how they fit into a Regional context of urbanization.

All of the data employed in this part of the Chapter were taken from United Nations sources (United Nations, 1988a; United Nations, 1989a). Strictly speaking the data are not comparable since they do reflect individual country definitions and demarcations of urban (and its residual, rural), but many scientific and donor organizations have consistently taken the position that individual governments are in a better position to determine what is "urban" in their country context than is any global standard. The United Nations estimates, thus, do not attempt to make adjustments for individual country definitions of urban.

It is important to bear in mind, however, that this presents other problems of interpretation. For example, when examining trends in urbanization, definitions may not only be different across countries at any one point in time, but they may also vary from one time to the next within the same country. These issues are discussed in depth in Goldstein and Sly (1975a & 1975b) and Sly (1988). The decision to use the United Nations data was not made lightly and was predicated on the fact that it does offer us the opportunity to have the same data for each country within the Region for uniform time periods, and by the fact that for some countries very little data of the type needed here exist. Data presented for the ESCWA Region were obtained by aggregating the United Nations' estimates for individual countries.

In the second section of the Chapter some concomitants of urbanization within the Region are identified. The new data introduced for this analysis were taken from a variety of sources including, in addition to those cited above, the Demographic and the Related Socio-economic Data Sheets (Economic and Social Commission for Western Asia, 1987) and various United Nations Statistical Year Books (1985 - 1988). Finally in the third section of the Chapter we present a broad overview of government views and policies regarding population distribution within each country of the Region. The data for these analyses were taken from the recently published volumes on population policy data prepared by the United Nations (1987, 1988b, 1989b & 1989c).

THE GLOBAL CONTEXT OF URBANIZATION IN THE ESCWA REGION

In 1950 when the world had a population of just over 2.5 billion persons less than 750 million of these or just over 29 per cent were living in urban areas. At this time the countries making up the ESCWA Region had a population of nearly 40 million persons or about 1.6 per cent of the world's total population. Of these just over 11 million or nearly 28 per cent of the Region's total population lived in urban areas. From Table 1 we can see that while the level of urbanization in the Region in 1950 was comparable to that in the world as a whole and while it was considerably above that found in the world's less developed countries (16.9 per cent), it was only about one-half the level of urbanization (53.8 per cent) in the more developed countries of the world (for a brief overview of the contribution of early Arab cities to the development of civilization see

Abu-Aianah, 1982a).

During each of the ensuing four decades, urban population increase in the ESCWA Region occurred at a more rapid rate than it did in the world as a whole; indeed during each of the last three decades urban population increase in the ESCWA Region occurred at nearly twice the pace as it did in the world as a whole. Through the 1980's rural population increase in the Region occurred at about the same pace as it did in the world, but during the 1980's rural population increase in the ESCWA Region outpaced that in the world by nearly three times the world rate. Thus, by 1990 the Region increased its share of the world's population to 2.4 per cent and its share of the world's urban population to 3.1 per cent.

Thus, by 1980 the Region passed the 50 per cent level of urbanization while the world had not yet reached the 40 per cent level, and by 1990, when the world level of urbanization had reached nearly 43 per cent that in the ESCWA Region, had passed 56 per cent. The level of urbanization among more developed countries continued to be substantially higher than that in the ESCWA Region at the start of each decade, but among the more developed countries where increasing urbanization was contributed to by a decline in the rural population the pace of urban growth was substantially less than that in the ESCWA Region. Among the less developed countries it was only during the 1950's that the pace of urban growth reached a comparable level to that in the ESCWA Region, but after 1960 the level of urban growth among the less developed countries lagged behind that in the ESCWA Region while the pace of rural population growth in the less developed countries declined with each successive decade beginning with the 1970's.

In short, since 1950 the aggregate level of urbanization within the Region has surpassed the global level of urbanization. The rapid pace at which urbanization is occurring in the Region is revealed in Table 2. At mid century the gap between the urbanization level in the Region (27.8 per cent) and that of the less developed countries of the world (16.9 per cent) was just 10.9 percentage points. By 1990 this gap had more than doubled reaching 22.5 percentage points, and it is projected to widen further to 23.6 percentage points by the end of the current decade. While the gap between the ESCWA Region and the less developed countries has widened, that between the Region and the more developed countries has narrowed; beginning at 26 percentage points in 1950, it had fallen to 16.3 percentage points in 1990 and is projected to be just 11.7 percentage points at the turn of the century.

The rapid rise in the urbanization level within the ESCWA Region has been achieved to date because of the rapid pace of urban population change. Among the more developed countries of the world, urbanization has been occurring in the context of a declining rate of urban population increase and a relatively stable rate of rural population decrease creating a context of total population increase, but one at a substantially declining rate over the period from 1950 to 1990. In the less developed countries urbanization has been occurring in the context of a declining but relatively stable rate of urban population increase and a rate of rural population increase which was higher over much of the period under observation than what it was at the start of the period and no lower at the end than at the start of the period. This same pattern of

change depicts the context of total population change among the less developed countries.

Within the ESCWA Region, however, the context of population change within which urbanization has occurred is markedly different than that of either the more or less developed countries. Here the pace of total population increase was the highest and increased with each successive decade. Over the three decades, from 1950 through 1980, this resulted from a high and relatively stable rate of increase in the urban population and a constant rate of rural population increase while during the 1980's the decline in the rate of urban population increase was more than off-set by an increase in the pace of rural population increase. Thus, the ESCWA Region is the only one where urbanization has been occurring in a context of a constantly increasing rate of total population increase.

VARIATIONS IN THE LEVELS AND TRENDS OF URBANIZATION AMONG COUNTRIES OF THE ESCWA REGION[1]

The data presented above depict the general pattern of urbanization for the ESCWA Region as an aggregate and the important role which rapid urban growth has played in setting the pace of urbanization since the middle of the century. While being aware of these general trends within the Region is useful, it is also important to realize that they mask the heterogeneity which exist in: 1) the level and trend of urbanization, and 2) the differential role which rapid urban growth has played in the process of urbanization at the individual country level. In this section we turn our attention to these variations first examining the trend in urbanization within individual countries and then the differential patterns of urban and rural growth accounting for the variations. In examining these factors we will consider two broad time periods: the first running from 1950 through 1975 and the second from 1975 through projections made to the turn of the Century.

1950 - 1975

Levels and Trends of Urbanization: In 1950 the ESCWA Region contained countries which had some of the world's lowest levels of urbanization and some countries which clearly had some of the world's highest levels of urbanization with the majority of countries falling at moderate levels of urbanization between these extremes. In 1950 three countries (Qatar, Bahrain and Kuwait) in the Region had urbanization levels which would have been considered high at the time and which ranged from about 59 to 64 per cent, while two countries (Oman and Yemen - North part) had levels of urbanization which were less than 2.5 per cent. Four other countries (Iraq, Jordan, Egypt and Syria) had moderately high levels of urbanization ranging from about 31 to 35 per cent, and four other countries (United Arab Emirates, Lebanon, Yemen - South Part - and Saudi Arabia) all had moderately low levels of urbanization which ranged from a high of nearly 25 per cent to a low of nearly 16 per cent (See Table 3).

---

[1] In 1990, the Yemen Arab Republic and the People Democratic Republic of Yemen were reunited under the name of Republic of Yemen. The present contribution covers the period from 1950 to 2000; therefore, for the purpose of the analysis the distinction between the north part and the south part of Yemen has been kept.

Over the twenty-five year period from 1950 to 1975 all countries in the Region achieved substantial increases in their levels of urbanization. Looking first at the absolute change in urbanization level we can see that among the three countries which began the period with the highest levels of urbanization, Kuwait achieved the most dramatic increase (nearly 25 percentage points), followed by Qatar (19.6 percentage points) and Bahrain (14.7 percentage points). In the case of Bahrain all of the increase over this twenty-five year period was concentrated in the first ten years; indeed, the level of urbanization in Bahrain is estimated to have been slightly higher in 1960 than what it was at any other time over the twenty-five years. Qatar, on the other hand, had its level of urbanization increase with each successive five year interval, but there was a clear tendency for the size of the increase to become smaller with each successive five year interval. The general pattern to the increase in urbanization level in Kuwait was similar to that in Qatar except that in Kuwait the increase was greater than in Qatar during each interval except the 1965 - 1970 and the 1970 - 1975 intervals when the magnitude of the increase returned to its pre 1965 levels in Kuwait. Thus even though urbanization occurred at a more rapid rate in Bahrain than either Qatar or Kuwait over the first ten years after 1950, both Qatar and Kuwait had more sustained increases in their percentages urban and ended the twenty-five year period with a higher level of urbanization than Bahrain.

Among the four countries with moderately high levels of urbanization at the start of the period, two (Iraq and Jordan) had nearly identical levels in 1950 (about 35 per cent) which were somewhat higher than the level (about 31 per cent) found in the other two countries (Syria and Egypt). The absolute increase in Iraq's level of urbanization during each five year period, except the first when it was the lowest, exceeded the increases in each of the other three countries. The magnitude of the increase grew during each of the first three periods reaching 7.7 percentage points during the interval from 1960 - 1965, then decreased with each successive interval through 1970 - 1975, but was still 5.2 percentage points during the latter.

Considering all four countries, there was a marked tendency during each five year period for the absolute increase in urbanization level to be positively related to level of urbanization, bringing about a substantially increased gap among the countries over the twenty-five year period. For example, while the level of urbanization gap between Iraq, with the highest level in this group in 1950, and Egypt, with the lowest, was less than five percentage points in 1950, it had increased to 18 percentage points by 1975. Similarly, while Iraq and Jordan had nearly equal levels of urbanization in 1950, Iraq was six per cent more urban by 1975 than was Jordan, and the gap between Jordan and Syria increased from less than three percentage points to ten.

There was a marked tendency for those countries (United Arab Emirates, Lebanon, Yemen - South Part - and Saudi Arabia) with moderately low levels of urbanization in 1950 to have large absolute increases in their urbanization levels during each five year period from 1950 through 1975. The single exception to this was Yemen (South part) where the increase over the entire twenty-five year period (15.5 percentage points), although comparable to those in Bahrain and Syria, was only about one-third or less than that of the other countries in this group. The United Arab Emirates with an increase of over 55 percentage points in its level of urbanization had nearly all of this concentrated in the first ten years and last five years of the period. Indeed, the increase

from 1970 to 1975 (nearly 38 percentage points) accounted for nearly 70 per cent of the change of the entire period. Among the other two countries in this group (Lebanon and Saudi Arabia) there was a tendency for the magnitude of the increase in absolute change to increase with each successive five year interval through 1970; however, these changes were relatively small resulting in their total change being more or less evenly spread over the twenty-five year period. Thus, among this group of countries there was again a substantial widening of the urbanization gap over the period from just 8.7 per centage points in 1950 to over 45 percentage points in 1975. In the case of these countries the widening resulted primarily from the large increase in level of urbanization in the United Arab Emirates and the much smaller increase in Yemen - South part.

The two countries (Oman and Yemen - North part) which started in 1950 with very low levels of urbanization posted very small increases in their per cent urban over each of the five year periods. Nevertheless, the increases occurring to Yemen (North part) after 1960 were consistently more than double those of Oman, resulting in the former having a level of urbanization in 1975 which was nearly twice that of the former despite their similarity in 1950.

In short, the period from 1950 to 1975 was one of substantial change within the Region. In 1950 only three countries within the Region had a level of urbanization which exceeded 50 per cent, and six of the thirteen countries had a level of urbanization which was below 25 per cent. By 1975 only two countries had urbanization levels which had not yet reached 25 per cent, while eight countries had urbanization levels which were 55 per cent or higher and one half of these had more than 78 per cent of their population living in urban areas. Although countries which had the highest levels of urbanization in 1950 still tended to have the highest levels of urbanization in 1975, the fact that 1950 per cent urban correlated with 1975 per cent urban at only .720 suggests that urbanization level at the latter date was only moderately influenced by urbanization level at the earlier date. This is further suggested by the fact that the absolute change in per cent urban from 1950 to 1975 was correlated with the per cent urban in 1950 at only the .170 level.

Similarly, while it is true that smaller countries in the Region tended to have higher levels of urbanization in 1950 as indicated by a correlation of -.313 between per cent urban in 1950 and total population size, the magnitude of this coefficient does not suggest that size played a particularly important role in determining urbanization level. That urbanization proceeded over the period quite independently of population size is also indicated by a correlation coefficient of only -.165 between 1950 total population size and absolute change in per cent urban between 1950 and 1975.

Urbanization and Urban Growth: Increases in urbanization levels can only occur when urban population growth exceeds rural population growth; that is, the per cent of the total population which is urban can only increase from one time to the next if the rate of urban population growth is greater than the rate of rural population growth. Table 4 contains data showing the per cent increase in the urban and rural population of each country in the region for five year intervals from 1950 - 1975 as well as for the entire period, and the per cent of total change within each interval which is accounted for by change in the urban population.

These data clearly show how much more rapid urban population growth has been than rural population growth within each country of the Region. During the two five year intervals prior to 1960, urban population increase in all countries exceeded rural population increase by a factor of two and ranged from around 55 per cent (in Saudi Arabia, 1950 - 1955) to a low of about 20 per cent (in Egypt, 1955 - 1960). By way of contrast the pace of rural population change during the two intervals exceeded ten per cent in only four of the possible 26 comparisons (Qatar and Iraq 1950 - 1955 and Oman and Kuwait 1955 - 1960); during eleven of the possible 26 comparisons the pace of rural population change was less than 5 per cent. With few exceptions there was a marked tendency for differentials between urban and rural population growth of this magnitude to continue through the 1960's and the first half of the 1970's. In 28 of the possible 39 observations which can be made covering the three five year intervals from 1960 through 1975 the pace of urban population change was at least double the pace of rural population change.

A summary of the pace of urban and rural population change over the entire twenty-five year interval is provided in the last column of Table 4. In all cases the pace of urban population change exceeded the pace of rural population change by a minimum of at least 2.5 times the pace of rural population change; in five countries urban population change was occurring at a pace which was five times greater than the pace of rural population change, and in five other countries the pace of urban population change was between 3 and 4.9 times greater than the pace of rural population change. It is important to note in this context that the pace of urban population change over this period was quite independent of both per cent urban in 1950 (Spearmen's r = -.121) and the 1950 total population size of country (Spearmen's r = -.192).

The final row entry for each country in Table 4 shows the per cent of total population change within the country which was accounted for by urban population change. In examining these data it is important to bear in mind that the per cent of total population change which is absorbed by the urban sector is statistically a function not only of the pace of urban and rural population change, but also the level of urbanization. That is, countries having a relatively high proportion of their population living in urban areas given a constant urban/rural growth differential will have a higher proportion of their total population change occurring in urban areas than will countries with a relatively low proportion of their population in urban areas and the same urban/rural growth differential.

The first point to note from these data is that in all countries the proportion of total population increase absorbed in the urban sector is considerably greater than what would be expected on the basis of either the 1950 per cent urban or the average of the 1950 and 1975 per cent urban. The three countries which had high levels of urbanization in 1950 (from around 60 to 64 per cent) had between 87 and 91 per cent of their total population increase absorbed in urban areas. Similarly the countries which had moderately high 1950 levels of urbanization ranging from about 31 to 35 per cent had from between 58 and 84 per cent of their total population change accounted for by growth in the urban population, while three of the four countries which had 1950 urbanization levels ranging from just 16 to 25 per cent had from nearly 89 to 118 per cent of their total population increase accounted for by urban population change. Thus, all

countries, irrespective of their 1950 level of urbanization, had a relatively large share of their total population increase absorbed in their urban areas.

The above discussion does suggest, however, that urbanization level in 1950 did influence the amount of change absorbed in the urban sector. This was further born out when per cent urban in 1950 was correlated with the per cent of total population change absorbed in urban areas (Spearman's r = .363), and the strength of this association increased (.643) when the average of the 1950 and 1975 levels of urbanization was substituted for urbanization level at the start of the period. Neither the per cent change in the urban (.214) nor rural (-.242) populations correlated particularly high with the per cent of the total population change absorbed by urban areas. This indicates that growth in neither the urban nor rural populations was a single overwhelming factor in shaping the differences in urbanization trends among the countries of the Region.

1975 - 2000

Levels and Trends of Urbanization: In 1975, as in 1950, the countries of the ESCWA Region displayed a great deal of heterogeneity in the levels of urbanization they had achieved (See Table 5). On the basis of urbanization level the countries could again be described in terms of four broad groups: those which were among the most urbanized in the world, those which had moderately high levels of urbanization, those which had moderately low levels of urbanization and those which were among the least urbanized in the world. In the first group are the four countries which had at least 75 per cent of their population living in urban areas. These included the three countries which were the most urbanized in 1950 (Qatar, Bahrain and Kuwait) plus the United Arab Emirates which was classified as having had only a moderately low level of urbanization by 1950 world standards. Two of these countries (Kuwait and Qatar) actually had urbanization levels in 1975 which were approaching 85 per cent, while the other two were already nearing 80 per cent.

The four countries which could be considered to have had achieved moderately high levels of urbanization by 1975 were all urban in the sense that they had more persons living in urban than rural areas, but none had yet achieved a 70 per cent level of urbanization. In this group are two countries which had moderately high levels of urbanization by 1950 standards (Iraq and Jordan) and two countries which had moderately low levels of urbanization by 1950 standards (Lebanon and Saudi Arabia). Three countries had moderately low levels of urbanization in 1975, and these included Syria and Egypt which had moderately high levels in 1950 plus Yemen (South part). Each of these countries had achieved at least a 34 per cent level of urbanization, but none had passed a 45 per cent level. Neither Yemen (North part) nor Oman had yet reached a 15 per cent level of urbanization and these countries remained among the least urbanized in the world.

Table 5 contains data showing the estimated level of urbanization for each country in the Region from 1975 through 1990 with projections to 2000. Clearly a sustained trend toward higher levels of urbanization has continued throughout the countries of the Region with the possible exception of the United Arab Emirates. In nine of the thirteen countries, however, the pace of change in per cent urban dropped-off substantially from

what it had been in the previous twenty-five year period, and in two other countries (Egypt and Yemen - South part) the absolute gain in per cent urban was only about equal to what it had been in the earlier twenty-five year period. In short, although urbanization has continued during the last quarter of the Twentieth Century, the pace of change has slowed across a broad spectrum of the countries in the Region.

That the pace of urbanization has slowed among the countries which began the period with the highest levels of urbanization should be no surprise. It is somewhat unexpected, however, to find that the two countries (Kuwait and Qatar) with the highest levels of urbanization at the start of the period did have the largest absolute gains in their per cent urban over the period. Thus, by 1990 Kuwait was nearly 95 per cent urban and Qatar nearly 90 per cent urban, whereas by the Century's end it is expected that the level of urbanization in the former will be 97 per cent and in the latter 91 per cent. In Bahrain the level of urbanization has continued to increase through time and by the Century's end it is expected to reach 85 per cent. The only country in this group where urbanization appears to have ceased is the United Arab Emirates. In this case the level of urbanization reached its peak of just over 80 per cent by 1980, then dropped to nearly 78 per cent by 1985 where it is expected to remain unchanged through the year 2000. Thus, by the end of the Century the Region most urbanized countries will show greater diversity in their levels of urbanization than they did in 1975.

All of the countries which had moderate levels of urbanization in 1975 ranging from about 55 to 68 per cent had their urbanization level increase by between 12 and 18 percentage points by 1990, and projections suggest that by the turn of the Century urbanization levels in Lebanon, Iraq and Jordan will be some 18 percentage points higher than they were in 1975, while in Saudi Arabia the level of urbanization will have increased by 23 percentage points. While these increases are more substantial than those observed for countries which started the period with high levels of urbanization, it is significant that the increases over this 25 year period in these countries are substantially less than those observed for the earlier 25 year period. Moreover, in each case more than one-half of the change occurring over the entire 25 year period was concentrated in the first ten years or from 1975 - 1985.

Thus, it would appear that by the latter part of this period the pace of urbanization as measured by the absolute increase in the per cent urban was also slowing down. Nevertheless, it is also apparent that on average the absolute increase during each five year interval after 1985 was nearly twice as large as the corresponding increase among the countries with high levels of urbanization. Accordingly, the gap between the countries with high levels of urbanization and moderately high levels in 1975 was narrowed over the interval. In fact, by the end of the Century it is expected that three of the countries which began in 1975 with moderately high levels of urbanization will have approached or passed the 80 per cent level, and that even the least urban country (Jordan) in this group will have nearly 75 per cent of its population in urban areas.

From a purely statistical perspective, one would expect that those countries with moderately low levels of urbanization in 1975 would experience larger absolute increases in their urbanization levels over this period than would those countries with moderately high levels of urbanization. This, however, was clearly not the case. Indeed, among the

three countries (Syria, Egypt and Yemen - South part) in this group, none had an absolute increase in its level of urbanization as large as the smallest increase experienced by the country in the group with moderately high levels of urbanization. Thus, over the period the gap between these countries and those with moderately high and high levels of urbanization actually widened, suggesting that there is little evidence to support an argument that urbanization will begin some sort of a take-off in these countries. This observation is further supported by the fact that if urbanization proceeds as projected to the end of the Century, the changes in the absolute levels of urbanization in each of these countries will be no more than their change was in the earlier 25 year period, or from 1950 through 1975.

Yemen (North part) and Oman had the lowest levels of urbanization in the Region in 1950, and started the last 25 years of the Century in the same position. The trend established in the 1960's of considerably larger increases in urbanization in Yemen (North part) than Oman continued after 1975, creating an ever widening gap between the two. If the projected trends to the end of the Century are realized, Oman, with just 15 per cent of its population urban, will be less than one-half as urban as Yemen - North Part - (33 per cent urban), the second least urbanized country in the Region.

Overall, the trend of increasing urbanization has continued through the last quarter of the 20th Century. By the turn of the Century it is expected that only two countries will have fewer than 50 per cent of their residents living in urban areas, and eight of the 13 countries in the Region will have nearly 75 per cent or more of their populations living in urban areas. The latter represents a doubling in the number of countries having at least 75 per cent of their population in urban areas since 1975. Equally important, however, is the fact that the pattern of differences in levels of urbanization among countries within the Region became firmly established during the interval from 1950 through 1975, and changed little after that. This is clearly indicated by comparing the .934 rank order correlation coefficient between per cent urban in 1975 and projected per cent urban to the end of the Century with the comparable coefficient relating 1950 and 1975 per cent urban which was only .720.

While population size was not strongly associated with either the per cent urban in 1950 or the absolute change in per cent urban from 1950 to 1975, 1975 population size does appear to be far more closely associated with both 1975 per cent urban and the absolute change in urbanization level from 1975 to the end of the Century. By 1975 countries with smaller populations were clearly more urban than larger countries (Spearman's r = -.439), and yet over the period, larger countries did experience larger absolute increases in their urbanization levels (Spearman's r = .582). Thus, by the end of the Century the relationship between population size and level of urbanization is expected to reduce to -.313.

Looking at the entire 50 year period it is obvious that there was a tendency for (those two) countries with the lowest levels of urbanization to maintain their relative position, but that among the other countries there has been a substantial reordering in terms of urbanization levels. Much of this reordering, however, took place in the first 25 years when the correlation between per cent urban in 1950 and 1975 was only .720. The last 25 years were a period of relatively little change in this regard as the correlation

between per cent urban in 1975 and 2000 reached .934.

Urbanization and Urban Growth: As the data presented above suggest urban population growth exceeded rural population growth during each five year interval from 1975 through 1990 in all countries of the Region except the United Arab Emirates. Projections to the end of the Century indicate that this pattern is expected to continue over the next ten years. What the data on urbanization levels does not make clear, however, are the markedly different levels and patterns of urban and rural population change which have contributed to the changing levels of urbanization (See Table 6). For example, during the period from 1975 - 1980, the countries with the largest increases in their urban populations were the United Arab Emirates (104%) and Yemen - North part (57%), while in two other countries the urban population increased by only six per cent (Lebanon) and 18 per cent (Egypt). If emerging trends continue by the last five years of the Century, the highest increases in urban population will occur in Oman (41%) and Yemen - North part (34%), while the lowest will be in the United Arab Emirates (10%) and Lebanon (11%).

By way of contrast the rural population actually decreased in two countries (Lebanon and Kuwait) during the period from 1975 - 1980, and among the countries where it did increase, the smallest increases were only .5 per cent and 3.7 per cent in Jordan and Saudi Arabia. These compare to the largest increases of 87 and 27 per cent in the United Arab Emirates and Oman respectively. By the last five years of the Century only Kuwait is expected to have a declining rural population, while among the countries where the rural population is expected to be growing the range in increases will be from .3 and 3.0 per cent in Lebanon and Egypt to 15 and 20 per cent in Oman and Yemen (North part) respectively. Thus, urbanization continued over the 25 year period within a context of quite different levels of both urban and rural population change.

This is further borne out if we look at the pattern of change within the countries over the whole 25 year period in Table 6. In four countries (Yemen - South Part - Jordan, Lebanon and Syria) there was a definite trend for the pace of urban population change to increase with each successive five year interval while in eight other countries (Bahrain, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, the United Arab Emirates and Yemen - North part), the clear trend was for the pace of urban population change to decrease with each five year interval. Among the first group, Lebanon and Syria had rural populations which consistently had lower per cent increases with each five year interval and Jordan had a rural population which had a higher per cent increase with each successive interval. Among countries which had consistently lower increases in their urban population, five (Bahrain, Kuwait, Oman, Qatar and the United Arab Emirates) had rural populations which had lower increases during each interval, but the others had rural populations which either increased at a faster pace from one interval to the next or the increase was about constant.

The cumulative impacts of these interval patterns on urban and rural population change over the entire 25 year period can be observed in the last column of Table 6. In all countries except Lebanon the urban population at least doubled over the 25 year period, and in most countries the pace of urban population change exceeded 200 per cent. In only two countries (Oman and the United Arab Emirates) did the rural population

double, while in two others (Kuwait and Lebanon) the rural population declined by about one-half over the 25 year period. In each of the remaining countries the rural population increased, and there was substantial variation in the pace at which this occurred; it varied from a high of nearly 85 per cent in Syria to a low of about 26 per cent in Saudi Arabia. As during the period from 1950 - 1975 neither size of the urban population nor the per cent urban at the start of the interval were highly associated with the per cent increase in the urban population over the period (Spearman's r for both was -.225).

When the rates of urban population change for the 25 year period from 1975 to the end of the Century are compared to the rates of urban population change for the earlier 25 year period, we can see that in the vast majority of countries the pace of urban population change declined during the later period. In large part, however, these declines in the pace of urban population change are a product of the increasingly large urban populations so that while the pace of the change declined, the absolute number of persons being added to the urban population in countries actually increased. The pace of rural population change in all but three countries was about equal or actually increased from the first to the second 25 year period. In this sense it is interesting to note that both the per cent increase in the urban and the rural population from 1975 to 2000 correlate negatively with the urbanization level at the end of the Century, and that the per cent change in the rural population (-.558) appears more closely associated with the expected level of urbanization in 2000 than the per cent change in the urban population (-.313).

Finally, the last row entry for each country in Table 6 shows the per cent of total population change which was accounted for by change in the urban population. Over the 25 year period urban population change accounted for all of the growth in total population in those countries where the rural population actually declined. In five other countries it accounted for more than 85 per cent of the total population increase, and in four others it accounted for between 66 and 77 per cent of the total change. As one would expect given the rising levels of urbanization in the Region there was a decided majority of countries (all but Bahrain and the United Arab Emirates) where the per cent of total change accounted for by the urban population increased during the second 25 year period from what it had been during the earlier 25 year period.

It is important, however, that the per cent of total population change accounted for by urban population change be looked at relative to the per cent urban. That is, we would expect that those countries which are more urban should have more of their total population change accounted for by change in the urban population. In making this comparison we have used the per cent of total change accounted for by change in the urban population over each 5 year period and the per cent urban at the end of each period. Thus, the measure tends to be somewhat conservative in stating the relative role of urban population, because in most instances the maximum level of urbanization in a period was reached at the end of the period. Similarly, in comparing the differences between the per cent urban and the per cent of total change accounted for by urban population change between periods it is important to bear in mind that these measures will be influenced differently depending on when during the period the pace of urbanization was fastest as well as by the total amount of change in the per cent urban over the period. Nevertheless, comparing the differences will give us a better idea of the

disproportionate role of urban population change in total population change within each period, and comparing these for the two periods will give us an idea of how the role of urban population has changed from the first to the second period.

The difference between the per cent urban at the end of each interval and the per cent of total change over the interval accounted for by urban population change can be observed in Table 7. During the first 25 year interval this difference exceeded 23 per cent in four countries (Yemen - South part, Iraq, Lebanon and Saudi Arabia) and was between 12 per cent and 19 per cent in five countries (Bahrain, Egypt, Jordan, Syria and Yemen - North part), while in each of the other four countries it was below nine per cent. Thus, during this interval the per cent of total change accounted for by urban population change was considerably more than we would have expected, given the per cent urban within the countries in all countries, but there was quite a bit of variation on this dimension.

As noted above, during the second five year interval, there was an increase in the per cent of total change accounted for by urban population change in all countries but two. From these data we can also readily see that in all countries but one (United Arab Emirates) the per cent of total change accounted for by urban population change was greater than we would have expected, given the levels of urbanization which existed at the end of the interval. What is significant, however, is that the differences between the per cent urban and the per cent of total change accounted for by urban change were clearly lower in eight countries and not markedly different in two others where the discrepancies were small.

Thus, these data clearly suggest that the role of urban population change is increasingly taking-on the proportions which one would expect given levels of urbanization. This is not to say that urban population change is not still disproportionately contributing to total population change, but rather that it is increasingly doing this to a lesser degree.

SOME CURRENT CONCOMITANTS OF URBANIZATION IN THE ESCWA REGION

Data which would allow us to relate a series of social, economic and health and well-being variables to urbanization at multiple points in time simply do not exist for many countries in the Region. Thus, any effort to establish causes and consequences of urbanization from an analysis of temporal relationships between these factors and changes in them with changes in levels of urbanization is not possible. Nevertheless, it is possible to relate a number of indicators to urbanization at a single point in time. This is done in Table 8 where the 1990 level of urbanization has been related to eight broad indicators reflecting dimensions of social and economic organization and health. Data on the independent variables were taken from various United Nations publications and each is the latest possible estimate we could obtain, and in no case are the estimated values for a year earlier than 1986. The zero order correlations were computed employing the Spearman rank order technique, and the whole matrix showing the relationships between all of the independent variables is displayed.

These data despite their simplicity are interesting. Looking first at the correlations between each of the population based independent variables and urbanization, we can see the low negative relationship between population size and level of urbanization referred to above. While size relates to urbanization negatively, both density (.418) and the per cent of the urban population in the largest agglomeration (.621) relate positively and more strongly to urbanization. That is, while there is a tendency for countries in the Region with smaller populations to be more urban than larger countries, there are even stronger tendencies for those countries which have more densely settled populations to have a higher level of urbanization than countries which are less densely settled and for those countries which have urban populations more centralized to have a higher level of urbanization than those countries whose urban populations are less centralized. These observations are consistent with those reported by Abu-Aianah (1982b).

Whether the associations between density and urbanization and the per cent of a country's urban population in its largest agglomeration are interpreted as causes or consequences of urbanization is not particularly important at this point. Rather what is, is the realization that within the Region relatively large agglomerations are playing an important role in the process of urbanization, and that it is the more densely populated countries which are the most urban. The lack of a relationship between size and density clearly suggests that the association of each with urbanization is independent of the other, whereas the moderate association between density and the per cent of a country's urban population, which is in its largest agglomeration, probably indicates that countries which are geographically smaller have relatively fewer urban places for population to be dispersed between.

The latter may be particularly important to bear in mind. Several countries within the Region are geographically small and by World standards have relatively small populations. Within these countries "urban systems" composed of a large number of interconnected, widely dispersed places are neither likely to exist nor be an efficient form of organization. In such places only a small number of fully developed, relatively large agglomerations are likely to emerge and urban development is likely to be centralized around these. Other countries are geographically large and hold the potential for the development of multiagglomerated "urban systems." Similarly, there are climatic, topographical and pedological variations within countries which will not only set constraints on urbanization directly, but also indirectly by limiting rural development.

Table 8 also shows the associations between three indicators of economic organization and urbanization and one indicator of economic output and urbanization. Each of these indicators relates rather strongly to level of urbanization in 1990. The per cent of the total population economically active shows the weakest association (.692) with the level of urbanization, but this relationship is surely influenced by variations in the age composition between countries. The per cent of the economically active population in non-agriculture and the per cent of the economically active population in service each relate, more strongly (.830 and .714, respectively) to level of urbanization as we would expect. Thus, urbanization within the Region is quite closely associated with those forms of economic organization which are more modern.

What is interesting in this context, however, is that each of these organizational

indicators also relates negatively with population size. Similarly, while each does relate positively with density and the per cent of the total urban population in the largest agglomeration, these latter relationships tend to be weak except for that between the per cent of the economically active population in non-agriculture and the per cent of the urban population in the largest agglomeration (.577). This, in turn, tends to suggest that smaller populations are more advanced in the development of non-agricultural employment and that this may be facilitated by their more centralized pattern of urbanization. As one would expect, there is a strong association (.865) between the per cent of the economically active population in non-agriculture and the per cent of the economically active population in service.

Per-capita gross domestic product is strongly associated (.709) with the per cent of 1990 population urban, and it is similarly strongly associated with each of the indicators of economic organization. While it relates negatively with population size, it is interesting to note that it is only weakly related to the per cent of the urban population in the largest agglomeration and does not relate to density at all. Thus, together these relationships tend to suggest that urbanization level and economic organization are playing a more key role in determining differences in gross domestic product than is the form that urbanization is taking.

Finally, the last entry in the first column of Table 8 clearly shows that urbanization and the infant mortality rate are inversely related (-.681). This is interpreted to indicate that higher levels of urbanization are associated with generally better health conditions. This health indicator, however, is more strongly associated with the per cent of the economically active population in service (-.852) and the per cent of the economically active population in non-agriculture than it is with either density (-.588) or the per cent of the urban population in the largest agglomeration (-.396). This, again, suggests that the level of urbanization in conjunction with economic organization may be more important than the form that urbanization is taking.

URBANIZATION AND REDISTRIBUTION POLICY

The data presented in the first two sections of this Chapter clearly demonstrate the pattern and pace of population redistribution which has occurred in all countries of the ESCWA Region and the high rates of urban population growth which have driven these changes. This transformation has left five countries (Bahrain, Kuwait, Lebanon, Qatar and Saudi Arabia) with 80 per cent or more of their population in urban areas by 1990 and five additional countries (Egypt, Iraq, Jordan, Syria and the United Arab Emirates) with between 50 and 79 per cent of their population in urban areas. Even among the three countries where urbanization had not reached these levels by 1990, it is important that we would not lose sight of the marked and dramatic increases in urbanization which did occur in them. That is, between 1950 and 1990 the level of urbanization increased by 2.5, five and 14 times its level at the start of the period in Yemen (South part), Oman and Yemen (North part) respectively. While we could not track these changes with changes in economic and social organization and the well-being of populations, data presented for 1990 rather clearly demonstrate that by this point in time urbanization was associated with indicators which would clearly suggest its benefits.

That this urban transformation confronts governments with a wide range of challenges from issues of national security to the provision of basic services and on to the development of infrastructures, employment opportunities and markets is now fully realized within the Region. Similarly, while we cannot document all of the social, economic, political and technological changes which have occurred simultaneously with population redistribution, these are important to bear in mind as are the internationalization, if not globalization, of both the causes and consequences of population redistribution. Indeed, while social scientists, policy makers and planners have given varying degrees of emphasis to both the negative and positive aspects of urbanization at different points in time, there has never been a point in time when the international transfer of information has made as much knowledge available concerning both as what we have access to today.

All of these considerations influence how governments view population distribution and redistribution within their borders, what they think should be done about it and how best to go about achieving given goals. The data presented in Table 9 show how each government within the Region has viewed its current population distribution from 1976 through 1989. The first point to note from these data is the high degree of stability over time to each Government's view of the appropriateness of its population distribution. From the period 1976 through 1989 only three of the thirteen Governments (Kuwait, Jordan and Lebanon) changed their evaluation of the appropriateness of their population distribution. It is interesting to note, however, that in each case where a change of view did occur, two of the governments reduced their assessment of appropriateness and that all changes occurred during the latter half of the 1980's. Together these observations may be signaling an increased awareness and concern with distributional issues on the part of governments in more recent years.

At the same time one must conclude that the Governments of the Region have tended to consistently express some concern over their population distribution, and that the expression of concern has been related to level of urbanization over the period observed. For example, the only Governments which considered their population distribution appropriate during the period after 1975 were those which we identified above as having the highest levels of urbanization in 1975. Among those countries which had moderately high, moderately low and low levels of urbanization in 1975 the majority of governments said that their population distribution was partially appropriate (7 governments) or inappropriate (2 governments). By 1989 this situation had changed only slightly in the sense that all of the governments which viewed their population distribution as appropriate were still those which had the highest levels of urbanization in 1975, but two of these now also saw their distributions as only partly appropriate. Thus, it is clear that the vast majority of governments in the Region currently view their population distributions as less than appropriate. Moreover, it is also clear that this view is not new in most countries, but rather has existed at least since the mid 1970's.

If we look at policies rather than just the government's view of population distribution, we can see that as early as 1976 nine of the thirteen countries had some general policy objective which was intended to influence population redistribution.

Three of the four Countries (Bahrain, Qatar and Kuwait) which had no policies intended to influence urbanization had high levels of urbanization in 1975, while the fourth (Yemen - North Part) had a low level of urbanization in 1975. Only one government (Saudi Arabia) at this time was trying to accelerate the pace of urbanization, and there was only one government (Jordan) which was trying to reverse the urbanization occurring within its borders. Both of these countries had moderately high levels of urbanization in 1975 and, while Jordan viewed its population distribution as inappropriate at this time Saudi Arabia saw its as partially appropriate.

Just as observed above when examining government views toward population distribution there was a considerable amount of stability over the period observed with respect to policy positions. Despite this stability, with four governments changing their policy position it is also clear that governments were slightly more likely to alter their policies than their view of the appropriateness of their population distribution. What is also interesting in this context is that there is little relationship between a government changing its view of the appropriateness of its population distribution and its policy position. For example, only in Jordan did the government's view and policy change temporally in that order. In Qatar, the United Arab Emirates and Egypt there were policy changes with no change in the view of these Governments with respect to the appropriateness of their population distribution, while in Lebanon there was a change in the view toward appropriateness, but no change in policy position.

Whether the policy objectives of these countries were realized or not is more easily determined for Jordan than for Saudi Arabia. In the case of the former it is clear that the trend of increasing urbanization was not reversed, but it is also clear that the pace of change in urbanization level did slow down in relative terms between 1975 and 1990 compared to what it had been during the period from 1950 through 1975 (see Tables 3 & 5). Saudi Arabia, on the other hand, experienced a dramatic increase in its level of urbanization between 1950 and 1975, and any effort to evaluate the extent to which urbanization was accelerated after this must be viewed in the context of this change, realizing that the higher the level of urbanization with the passage of time the more difficult it is to achieve larger relative increases. In short, the increase in urbanization level from 1975 to 1990 in Saudia Arabia from about 59 per cent to over 77 per cent is significant in absolute terms, but in relative terms it is difficult to consider it as an acceleration when placed in the context of the pace of urbanization increase during the pre 1975 period.

Each of the other countries in the Region had a policy in 1975 which was oriented to decelerating the pace of urbanization. Among these countries one can find the full range of urbanization levels (from high to low), but what they all share in common is that the countries trying to decelerate urbanization had governments which viewed their current distribution as less than appropriate. Just as it was difficult to assess the extent to which acceleration was achieved, so too is it difficult to fully assess the extent to which decelerations were achieved and the extent to which these were the result of deliberate policies as opposed to unintended consequences of "unrelated" policies and/or statistical artifacts in part resulting from levels of urbanization already achieved.

Six of the seven countries with policies intended to decelerate the pace of

urbanization in 1975 did, in fact, show evidence of having achieved this objective. The United Arab Emirates which was the one country with a high level of urbanization in 1975 and a deceleration policy by 1976 actually had a lower level of urbanization in 1990 than it had in 1975. Similarly strong evidence of deceleration can also be pointed to for the two countries which had moderately high levels of urbanization in 1975. In Iraq's case, for example, the absolute increase in urbanization level between 1975 and 1990 was about 13 percentage points which was only one-half the absolute increase for the period 1950 -1975. If the relative increase in the level of urbanization for the fifteen year period prior to 1975 (61.4 - 42.9/ 42.9 = 43.1) is compared to the relative increase for the fifteen year period after 1975 (74.2 - 61.4/ 61.4 = 20.8), the deceleration achieved appears even more dramatic.

Syria, Egypt and Yemen (South Part), on the other hand, each had a moderately low level of urbanization in 1975, and in each of these cases the achievement of deceleration is far less clear. The twenty-five versus the fifteen year absolute increases in the levels of urbanization for the periods before and after 1975 for Syria, Egypt and Yemen (South Part) were 14/7, 11/6 and 15/9 respectively. Thus, only in Syria was the increase during the latter period only about one-half that for the earlier period. If we look at the relative increases for each of the fifteen year periods around 1975 we find that in Syria the urbanization level increased by 23 per cent during the first, but by only nine per cent during the latter. For each of the other two countries, however, the level of urbanization relative increases were 16 versus 12 for Egypt and 22 versus 26 for Yemen (South Part). In the case of Oman where the 1975 level of urbanization was low, there was no evidence of deceleration, but given the low level of urbanization this is not surprising.

The various specific instruments which governments are using to influence their population distributions cannot be reviewed here in detail. Nevertheless, it is interesting and instructive to, at least, review the broad instrumental strategies which are being employed, and to make note of the fact that even those countries which view their population distributions as appropriate and those countries which claim to have no distribution policy do, in fact, have in place various programme instruments which are influencing their population distribution. Thus, for example, all countries within the Region, except Lebanon, report having some comprehensive strategy for the promotion of small towns and intermediate size cities. Similarly, Bahrain, Iraq, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates (or seven of the thirteen countries in the Region) have developed some programmatic effort to develop "new towns." In short, there is in these countries some effort to redirect urban growth and urbanization away from established larger places by attempting to enhance the attractiveness of smaller places. In some countries this is being done exclusively through programmes to establish "new towns", while in others it is being done both through the development of new towns and the promotion of smaller already established small and intermediate size places.

In all countries the major tools being used to develop such places are the development of public infrastructures through various types of subsidies intended to attract and promote private investment of capital. Five countries (Iraq, Jordan, Saudi Arabia, Syria and the United Arab Emirates) are further channeling urban development in this sense by directly restricting and controlling industrial location. All countries but

Yemen (North Part) are also making direct State investments in the development of industry. In only four countries (Iraq, Jordan, Syria and Yemen - North Part), however, is this "small place strategy" being supported by a comprehensive effort to slow primate or large city growth, and in only seven countries (Yemen - South Part, Iraq, Jordan, Oman, Saudi Arabia, Syria, and Yemen - North Part) are there comprehensive rural development programmes which might affect rural to urban migration.

CONCLUSION

This broad overview of urbanization within the ESCWA Region has focused on the period from 1950 through 1990, but we have also considered projections of urbanization to the end of the Century. At a Regional scale urbanization has increased at a more rapid rate (increasing by more than 100 per cent from 1950 to 1990) than has Global urbanization, and projections suggest that by the turn of the Century the Regional level of urbanization will approach 65 per cent. Over this period urbanization has increased markedly within all countries of the Region, yet in some countries, most notably Yemen (North Part) and Oman, the level of urbanization remains low. Not surprisingly, urbanization has not occurred at a uniform rate in all countries, and just as it was clear in 1950 that there were substantial differences among countries in the levels of urbanization they had achieved, so will differences of a substantial magnitude continue into the future too.

Across the Region urbanization has tended to occur within a context of rapid total population growth. Indeed, the interdecade per cent increases in total population for the ESCWA Region have exceeded those of the aggregate of the World's less developed countries during every decade from 1950 through 1990, and the differential has increased with each succeeding decade. Under these conditions urbanization could only be achieved through extremely rapid urban population growth. These observations tended to exist in most individual countries although there were some pronounced differentials in both urban and total population growth between the Region's countries.

The factors which account for these growth rate differentials are difficult to assess in the absence of quality, systematically collected/reported data for all countries in the Region. Various researchers have, however, reported that the country growth rate differentials are substantially influenced by international migration as well as by natural change differences (see Al-Qutub, 1984 & Dabla, 1986), while the urban growth rate differentials are influenced by these factors as well as by internal migration and area reclassification differences including changing definitions of urban. Although studies of the volume and role of migration and migrants to urbanization in the Region are beginning to appear (Al-Nasr and Attiya, 1885; Kossaifi, 1985; Al-Sharif, 1986; Dabla, 1986 and El-Attar, 1990), there can be no doubt that much more needs to be known on these subjects from a social and economic as well as a demographic perspective.

Our correlation analysis of the concomitants of urbanization strongly suggests that the more urbanized countries of the Region had the more centralized urban structures, the modern economic structures and that their populations were living at a higher level of well-being. No attempt was made to argue that the indicators employed in this analysis should be viewed as causes or consequences of urbanization, but it is clear that those

countries which are more urbanized are also more advanced with respect to these dimensions. The highly centralized structure of urbanization in the countries of the Region needs to be further analyzed. While many have argued that there are many disadvantages to having overly dominant single cities within countries, it may well be that this form of "urban structure" is well suited to many of the spatially smaller, environmentally constrained countries of the Region given their relatively small population size.

While the role of the natural resources base of countries was not brought to bear on this analysis, one does need to bear this factor in mind. Three of the four most urbanized countries (Qatar, Kuwait, and the United Arab Emirates) in the Region are major oil producers, and the fourth (Bahrain) is a refining and financial center servicing the oil producing countries. Indeed, even the two most urbanized countries among those countries (Saudi Arabia and Iraq) with moderately high levels of urbanization by the end of the period examined are major oil producing countries. On the other hand, four (Syria, Egypt, Yemen - South Part, and Yemen - North Part) of the five least urbanized countries have no relatively important oil reserves. The per capita gross domestic product in each of the four most urbanized countries is near or above $10,000 (1986), while for Saudi Arabia and Oman it is around $7,000. In none of the other countries of the Region does the per capita gross domestic product even approach 50 per cent of the latter. Quite clearly this factor has influenced urbanization and quite clearly it plays a central role in determining the investment capital which governments have available to facilitate both their urban and broader socio-economic development.

Quite clearly governments in the Region are concerned about their population distribution, and many are clearly predisposed to shaping, if not altering it, through various policy and programme interventions. As early as 1976 only three governments within the Region viewed their current population distribution as adequate, and as late as 1989 this was only true in two. Similarly, by 1976 all but four countries had some official population distribution policy, and by 1989 all but three did. Although it is difficult to fully assess the impacts of distribution policy, and in many respects it is even more difficult to attribute changes to specific measurable policy or programme implementations, there is some evidence to indicate that in many of the countries broad policy directions are being achieved.

A better sense of how policy is being formulated, adopted, implemented, and evaluated within the region can be made by reading the four country case studies which follow. The country case studies are based on the experiences of a diverse group of countries which capture the broad range of differences which exist within the region. Indeed, one important thing persons not familiar with the region will learn from these papers, is the complexity introduced by these differences, and how they have influenced not merely the levels and trends of urbanization and population redistribution, but also the efforts of policy makers and the constraints placed on their efforts. For persons more familiar with the region, the case studies afford a uniquely detailed picture of what policy can and cannot achieve when formulated and implemented in a world economy and regional social structure which guarantees that no country can escape or isolate itself from outside influences.

REFERENCES

Abu-Aianah, Fathi. 1982a. "Primate Cities in the Arab World." In Population and Development in the Middle East. Baghdad: Economic Commission For Western Asia (ECWA).

_____. 1982b. "Urbanization in the Middle East in World Perspective." In Population and Development in the Middle East. Baghdad: Economic Commission For Western Asia (ECWA).

Abu-Lughood, Janet. 1984. "Theories of Development and Population: A Reassessment and an Application to the Arab World." Population Bulletin of ECWA: 25. December 1984. pp 21 - 48.

El-Attar, Mohamed. 1990. "Egypt." In International Handbook on Internal Migration, edited by Nam, Serow and Sly. New York: Greenwood Press.

Berry, Brian. 1981. Comparative Urbanization. New York: St. Martin's Press.

Dabla, Bashir. 1986. "Migration and its Sociological Impact in Saudi Arabia." Population Bulletin of ESCWA: 29. December 1986. pp 77 - 92.

Davis Kingsley. 1972. World Urbanization 1950 - 1970. Volume II: Analysis of Trends, Relationships and Development. Berkeley: University of California Press.

Goldstein, Sidney, and David F. Sly. 1975a. Basic Data Needed for the Study of Urbanization. Dolhain: International Union for the Scientific Study of Population. Ordina Editions.

_____. 1975b. The Measurement of Urbanization and Projection of Urban Population. Dolhain: International Union for the Scientific Study of Population. Ordina Editions.

_____. 1977. Patterns of Urbanization: Comparative Country Studies. Dolhain: International Union for the Scientific Study of Population. Ordina Editions.

Kossaifi, George. 1985. "Forced Migration of Palestinians from the West Bank and Gaza Strip 1967 - 1983." Population Bulletin of ESCWA: 27. December 1985. pp 73 - 108.

Al-Nasr, Ahmad, and Muhammad Attiya. 1985. "Urban Immigration and Outmigration in Egypt." Population Bulletin of ECWA: 26. June 1985. pp 9 - 38.

Obudho, Robert A.1985. Demography, Urbanization and Spatial Planning in Kenya: A Bibliographical Survey. London: Greenwood Press.

Portes, Alejandro. 1979. "On the Sociology of National Development: Theories and Issues." In Third World Urbanization, edited by J. Abu-Lughod and R. Hay. New York: Methuen.

Preston, Samuel. 1979. "Urban Growth in Developing Countries: A Demographic Reappraisal." Population and Development Review: 5, No. 2, June 1979. pp 195 - 216.

Al-Qutub, Ishaq. 1984. "Towards a Strategy for Urbanization in the Arab World." Population Bulletin of ECWA: 24. June 1984. pp 27 - 64.

Al-Sharif, Abdul-Rahman. 1986. "Population Migration to Southwest of Saudi Arabia: Its Motives and Impacts." Population Bulletin of ESCWA: 28. June 1986. pp 125 - 142.

Sly, David F. 1988. "Data and Measurement Problems in Aggregate Analysis." In Assessing the Demographic Consequences of Major Development Projects. New York: The United Nations. (ST/ESA/SER.R/81). pp 139 - 160.

Tabbarah, Riad. 1982. "Population, Human Resources and Development in the Arab World." In Population and Development in the Middle East. Baghdad: Economic Commission for Western Asia (ECWA).

United Nations. 1987. World Population Policies. Population Studies, Vol. I. New York. (ST/ESA/SER.A/102).

_____. 1988a. World Demographic Estimates and Projections, 1950 - 2025. New York. (ST/ESA/SER.RR/79).

_____. 1988b. "World Population Trends and Policies". Population Studies, No. 103. New York. (ST/ESA/SER.A/103).

_____. 1989a. "Prospects of World Urbanization, 1988". Population Studies, No. 112. New York. (ST/ESA/SER.A/112).

_____. 1989b. "Trends in Population Policy". Population Studies, No. 114. New York. (ST/ESA/SER.A/114).

_____. 1989c. World Population Policies. Population Studies, Vol. 2. New York. (ST/ESA/SER.A/102/Add.1).

United Nations, Economic and Social Commission for Western Asia (ESCWA). 1987. Demographic and Related Socio-Economic Data Sheets No. 5. Baghdad. (E/ESCWA/SDP/87).

TABLE (1)

TOTAL URBAN AND RURAL POPULATION AND PER CENT OF THE POPULATION URBAN FOR THE ESCWA REGION, WORLD, AND MORE AND LESS DEVELOPED AREAS 1950 - 2000. (POPULATION IN 1,000s)

Area	1950	1960	1970	1980	1990	2000
ESCWA Region						
Total	39,955	51,078	67,454	90,380	124,995	163,823
Urban	11,095	17,785	29,144	45,805	70,435	103,330
Rural	28,860	33,293	38,310	44,575	54,560	60,493
% Urban	27.8	34.8	43.2	50.7	56.4	63.1
WORLD						
Total	2,515,312	3,091,376	3,697,918	4,450,210	5,292,178	6,251,055
Urban	732,698	1,030,495	1,374,242	1,770,118	2,260,399	2,916,501
Rural	1,728,614	1,988,882	2,323,675	2,856,189	3,031,779	3,334,554
% Urban	29.1	34.1	37.2	39.8	42.7	53.3
MORE DEVELOPED						
Total	832,425	944,851	1,049,273	1,136,406	1,205,193	1,262,482
Urban	447,691	571,338	698,861	798,196	875,684	944,691
Rural	384,806	373,513	350,412	338,209	329,509	317,791
% Urban	53.8	60.5	66.6	70.2	72.7	74.8
LESS DEVELOPED						
Total	1,682,887	2,074,525	2,648,644	3,313,804	4,086,985	4,988,573
Urban	285,079	459,157	675,381	971,922	1,384,715	1,971,809
Rural	1,397,808	1,615,368	1,973,263	2,341,882	2,702,270	3,016,764
% Urban	16.9	22.1	25.5	29.3	33.9	39.5

TABLE (2)

INTERDECADE PER CENT CHANGE IN THE TOTAL URBAN AND RURAL POPULATION OF THE ESCWA REGION, WORLD, AND MORE AND LESS DEVELOPED AREAS 1950 - 2000

Area	1950-1960	1960-1970	1970-1980	1980-1990	1990-2000
ESCWA Region					
Total	27.8	32.1	34.0	38.3	31.1
Urban	60.3	63.9	57.2	53.8	46.7
Rural	15.4	15.1	16.4	22.4	10.9
World					
Total	20.0	22.5	20.3	18.9	18.1
Urban	40.6	33.4	28.8	27.7	15.8
Rural	11.6	16.8	22.9	6.1	10.0
More Developed					
Total	13.5	11.1	8.3	6.1	4.8
Urban	27.6	22.3	14.2	9.7	7.9
Rural	-2.9	-6.2	-3.5	-2.6	-3.6
Less Developed					
Total	23.3	27.7	25.1	23.3	22.1
Urban	61.1	47.1	43.9	42.5	42.4
Rural	15.6	22.2	18.7	15.4	11.6

TABLE (3)

TOTAL URBAN AND RURAL POPULATION AND PER CENT URBAN FOR COUNTRIES IN THE ESCWA REGION, 1950 - 1975 (POPULATION IN 1,000s)

Country	1950	1955	1960	1965	1970	1975
Bahrain	116	134	156	191	220	272
Urban	74	97	123	150	172	216
Rural	42	37	33	41	48	56
% Urban	63.8	72.4	78.8	78.5	78.2	78.5
Egypt	20,330	22,990	25,722	29,389	33,053	36,289
Urban	6,491	8,009	9,615	11,956	13,951	15,768
Rural	13,839	14,981	16,107	17,433	19,102	20,521
% Urban	31.9	34.8	37.4	40.7	42.2	43.4
Iraq	5,159	5,911	6,847	7,976	9,356	11,020
Urban	1,812	2,224	2,937	4,040	5,254	6,764
Rural	3,347	3,687	3,910	3,936	4,102	4,256
% Urban	35.1	37.6	42.9	50.6	56.2	61.4
Jordan	1,237	1,447	1,695	1,962	2,299	2,600
Urban	429	559	724	908	1,162	1,440
Rural	808	888	971	1,054	1,137	1,160
% Urban	34.7	38.6	42.7	46.3	50.5	55.4
Kuwait	152	199	278	471	744	1,007
Urban	90	131	201	366	579	844
Rural	62	68	77	105	165	163
% Urban	59.2	65.8	72.3	77.7	77.8	83.8
Lebanon	1,442	1,614	1,857	2,151	2,469	2,767
Urban	327	492	735	1,064	1,466	1,898
Rural	1,115	1,122	1,122	1,087	1,003	869
% Urban	22.7	30.5	39.6	49.5	59.4	68.6
Oman	413	455	505	571	654	766
Urban	10	13	18	24	33	47
Rural	403	442	487	547	621	719
% Urban	2.4	2.9	3.6	4.2	5.1	6.1
Qatar	25	35	45	70	111	171
Urban	16	24	33	54	89	143
Rural	9	11	12	16	22	28
% Urban	64.0	68.6	73.3	77.1	80.2	83.6
Saudi Arabia	3,201	3,593	4,075	4,793	5,745	7,251
Urban	508	791	1,211	1,858	2,796	4,255
Rural	2,693	2,802	2,864	2,935	2,949	2,996
% Urban	15.9	22.0	29.7	38.8	48.7	58.7

TABLE (3 - Cont'd.)

Country	1950	1955	1960	1965	1970	1975
Syria	3,495	3,967	4,561	5,325	6,258	7,438
Urban	1,071	1,334	1,677	2,130	2,713	3,378
Rural	2,424	2,633	2,884	3,195	3,545	4,060
% Urban	30.6	33.6	36.8	40.0	43.6	45.4
United Arab Emirates	69	79	90	144	223	505
Urban	17	25	36	59	94	403
Rural	52	54	54	85	129	102
% Urban	24.6	31.6	40.0	41.0	42.1	79.8
Yemen	4,316	4,734	5,247	5,843	6,332	6,936
Urban	250	344	475	634	845	1,149
Rural	4,066	4,390	4,772	5,209	5,487	5,787
% Urban	5.8	7.3	9.1	10.9	13.3	16.6
North Part	3,324	3,646	4,039	4,492	4,835	5,282
Urban	63	93	137	228	364	581
Rural	3,261	3,553	3,902	4,264	4,471	4,701
% Urban	1.9	2.6	3.4	5.1	7.5	11.0
South Part	222	1,088	1,208	1,351	1,497	1,654
Urban	187	251	338	406	481	568
Rural	805	837	870	945	1,016	1,086
% Urban	18.8	23.1	28.0	30.1	32.1	34.3

TABLE (4)

PER CENT INCREASE IN THE URBAN AND RURAL POPULATION AND THE PER CENT OF TOTAL POPULATION INCREASE ACCOUNTED FOR BY THE INCREASE IN THE URBAN POPULAITON, 1950-1975

Country	1950-1955	1955-1960	1960-1965	1965-1970	1970-1975	1950-1975
Bahrain, Urban	31.1	26.8	21.9	14.7	25.6	191.9
Rural	-11.9	-10.8	24.2	17.1	16.7	33.3
% of total change; urban	127.8	118.2	77.1	75.9	84.6	91.0
Egypt, Urban	23.4	20.1	24.3	16.7	13.0	142.9
Rural	8.3	7.5	8.2	9.6	7.4	48.3
% of total change; urban	59.8	58.8	63.8	54.4	56.1	57.8
Iraq, Urban	22.7	32.1	37.6	30.0	28.7	273.3
Rural	10.1	6.0	.7	4.2	3.8	27.1
% of total change; urban	54.8	76.2	97.7	88.0	90.7	84.5
Jordan, Urban	30.3	29.5	25.4	28.0	23.9	235.7
Rural	9.9	9.3	8.5	7.9	-2.0	43.6
% of total change; urban	61.9	66.5	68.9	75.4	92.4	74.2
Kuwait, Urban	45.6	53.4	82.1	58.2	45.8	837.8
Rural	9.7	13.2	36.4	57.1	-1.2	162.9
% of total change; urban	87.2	88.6	85.4	78.0	100.7	88.2
Lebanon, Urban	50.5	49.4	44.8	37.8	29.5	480.4
Rural	.6	0	-3.1	-7.7	13.4	-67.6
% of total change; urban	95.9	100.0	111.9	126.4	145.0	118.6
Oman, Urban	30.0	38.5	33.3	37.5	42.4	370.0
Rural	9.7	10.2	12.3	13.5	15.8	78.4
% of total change; urban	7.1	10.0	9.1	10.8	19.7	10.5
Qatar, Urban	50.0	37.5	63.6	64.8	60.7	793.7
Rural	22.2	9.1	33.3	37.5	27.3	211.1
% of total change; urban	80.0	90.0	84.0	85.4	90.0	87.0

TABLE (4 - Cont'd.)

Country	1950-1955	1955-1960	1960-1965	1965-1970	1970-1975	1950-1975
Saudi Arabia, Urban	55.7	53.1	53.4	50.5	52.2	737.6
Rural	4.0	2.2	2.5	.5	1.6	11.2
% of total change; urban	72.2	87.1	90.1	98.5	96.9	92.5
Syria, Urban	24.6	25.7	27.0	27.4	24.5	215.4
Rural	8.6	9.6	10.8	10.9	14.5	67.5
% of total change; urban	55.7	57.7	59.3	62.5	56.4	58.5
United Arab Emirates, Urban	47.1	44.0	63.9	59.3	328.7	227.1
Rural	3.8	0	57.4	51.8	-20.9	96.1
% of total change; urban	80.0	100.0	42.6	44.3	109.5	88.5
Yemen, Urban	37.6	38.1	33.5	33.3	36.0	359.6
Rural	8.0	8.7	9.2	5.3	5.5	42.3
% of total change; urban	22.5	25.5	26.7	43.1	50.3	34.3
North Part, Urban	47.6	47.3	66.4	59.6	59.6	822.2
North Part, Rural	8.9	9.8	9.3	4.8	5.1	44.2
% North Part of total change	9.3	11.2	20.1	39.6	48.5	26.4
South Part, Urban	34.2	34.7	20.1	18.7	18.1	203.7
South Part, Rural	4.0	3.9	8.6	7.5	6.9	34.9
% South Part of total change	66.7	72.5	47.5	51.4	55.4	57.6

TABLE (5)

TOTAL URBAN AND RURAL POPULATION AND PER CENT URBAN FOR COUNTRIES IN THE ESCWA REGION, 1975 - 2000 (POPULATION IN 1,000s)

Country	1975	1980	1985	1990	1995	2000
Bahrain	272	347	430	515	601	682
Urban	216	279	351	427	505	582
Rural	56	68	79	88	96	100
% Urban	78.5	80.4	81.6	82.9	84.0	85.3
Egypt	36,289	42,120	47,579	54,059	60,470	66,710
Urban	15,768	18,561	22,121	26,381	31,194	36,547
Rural	20,521	22,959	25,458	27,678	29,276	30,163
% Urban	43.4	44.1	46.5	48.8	51.6	54.8
Iraq	11,020	13,291	15,898	18,920	22,411	26,339
Urban	6,764	8,819	11,228	14,034	17,268	20,890
Rural	4,256	4,472	4,670	4,886	5,143	5,449
% Urban	61.4	66.3	70.6	74.2	77.1	79.3
Jordan	2,600	2,922	3,506	4,269	5,218	6,329
Urban	1,440	1,756	2,257	2,908	3,722	4,684
Rural	1,160	1,166	1,249	1,361	1,496	1,645
% Urban	55.4	60.1	64.4	68.1	71.3	74.0
Kuwait	1,007	1,375	1,710	2,090	2,438	2,782
Urban	844	1,240	1,602	1,998	2,356	2,704
Rural	163	135	108	92	82	78
% Urban	83.8	90.2	93.7	95.6	96.6	97.2
Lebanon	2,767	2,669	2,668	2,965	3,286	3,604
Urban	1,898	2,016	2,136	2,483	2,820	3,135
Rural	869	653	532	482	466	469
% Urban	68.6	75.5	80.4	83.7	85.8	87.0
Oman	766	984	1,243	1,468	1,735	2,057
Urban	47	72	110	156	220	311
Rural	719	912	1,133	1,312	1,515	1,746
% Urban	6.1	7.3	8.8	10.6	12.7	15.1
Qatar	171	229	299	368	436	498
Urban	143	197	263	329	395	455
Rural	28	32	36	39	41	43
% Urban	83.6	86.0	87.9	89.4	90.6	91.4
Saudi Arabia	7,251	9,372	11,595	14,132	17,118	20,686
Urban	4,255	6,265	8,463	10,926	13,722	16,924
Rural	2,996	3,107	3,132	3,206	3,396	3,762
% Urban	58.7	66.8	73.0	77.3	80.2	80.2

TABLE (5 - Cont'd.)

Country	1975	1980	1985	1990	1995	2000
Syria	7,438	8,800	10,458	12,501	14,904	17,611
Urban	3,378	4,174	5,172	6,479	8,124	10,115
Rural	4,060	4,626	5,286	6,022	6,780	7,496
% Urban	45.4	47.4	49.5	51.8	54.5	57.4
United Arab Emirates	505	1,015	1,350	1,588	1,776	1,950
Urban	403	824	1,050	1,235	1,382	1,517
Rural	102	191	300	353	394	433
% Urban	79.8	81.2	77.8	77.8	77.8	77.8
Yemen	6,936	7,856	9,026	10,508	12,354	14,575
Urban	1,149	1,602	2,234	3,079	4,160	5,466
Rural	5,787	6,254	6,792	7,429	8,194	9,109
% Urban	16.6	20.4	24.8	29.3	33.7	37.5
North Part	5,282	5,995	6,889	8,017	9,425	11,146
Urban	581	915	1,381	2,001	2,786	3,725
Rural	4,701	5,080	5,508	6,016	6,639	7,421
% Urban	11.0	15.3	20.0	24.9	29.6	33.4
South Part	1,654	1,861	2,137	2,491	2,929	3,429
Urban	568	687	853	1,078	1,374	1,741
Rural	1,086	1,174	1,284	1,413	1,555	1,688
% Urban	34.3	36.9	39.9	43.3	46.9	50.8

TABLE (6)

PER CENT INCREASE IN THE URBAN AND RURAL POPULATION AND THE PER CENT OF TOTAL POPULATION INCREASE ACCOUNTED FOR BY THE INCREASE IN THE TOTAL POPULATION, 1975 - 2000

Country	1975-1980	1980-1985	1985-1990	1990-1995	1995-2000	1975-2000
Bahrain, Urban	29.2	25.8	21.6	18.3	15.2	169.4
Rural	21.4	16.2	11.4	9.1	4.2	78.6
% of total change; urban	84.0	86.7	89.4	90.7	95.1	87.8
Egypt, Urban	17.7	19.2	19.3	18.2	17.2	131.8
Rural	11.9	10.9	8.7	5.8	3.0	47.0
% of total change; urban	47.9	65.2	65.7	75.1	85.8	68.3
Iraq, Urban	30.4	27.3	25.0	23.0	20.9	208.8
Rural	5.1	4.4	4.6	5.3	5.9	28.0
% of total change; urban	90.5	92.4	92.8	92.6	92.2	92.2
Jordan, Urban	21.9	28.5	28.8	28.0	25.8	225.3
Rural	.5	7.1	8.9	9.9	10.0	41.8
% of total change; urban	98.1	85.8	85.3	85.8	86.6	87.0
Kuwait, Urban	46.9	29.2	24.7	17.9	14.8	220.4
Rural	-17.2	-20.0	-14.8	-10.9	-15.2	-52.1
% of total change; urban	107.6	108.1	103.7	102.9	101.2	104.8
Lebanon, Urban	6.2	6.0	16.2	13.6	11.2	65.1
Rural	-24.9	-18.5	-9.4	-3.3	.6	-46.0
% of total change; urban	120.4	120.0	116.8	105.0	99.1	147.8
Oman, Urban	53.2	52.8	41.8	41.0	41.4	561.7
Rural	26.8	24.2	15.8	15.5	15.2	142.8
% of total change; urban	11.5	14.7	20.4	24.0	28.3	20.4
Qatar, Urban	37.8	33.5	25.1	20.1	15.2	218.2
Rural	14.3	12.5	8.3	5.1	4.9	53.6
% of total change; urban	6.9	5.7	4.3	2.9	3.2	95.4

TABLE (6 - Cont'd.)

Country	1975-1980	1980-1985	1985-1990	1990-1995	1995-2000	1975-2000
Saudi Arabia, Urban	47.2	35.1	25.1	20.1	15.2	218.2
Rural	3.7	.8	2.4	5.9	10.8	25.6
% of total change; urban	94.8	98.9	97.1	93.6	89.7	94.3
Syria, Urban	23.6	23.9	25.3	25.4	24.5	199.4
Rural	13.9	14.3	13.9	12.6	10.6	84.6
% of total change; urban	58.4	60.2	64.0	68.5	73.3	66.2
United Arab Emirates, Urban	104.5	27.4	17.6	11.9	9.8	276.4
Rural	87.3	57.1	17.7	11.6	9.9	324.5
% of total change; urban	82.5	67.5	77.7	78.2	77.6	77.1
Yemen, Urban	39.4	39.5	37.8	35.1	31.4	375.7
Rural	8.1	8.6	9.4	10.3	11.2	57.4
% of total change; urban	49.2	54.0	57.0	58.6	58.8	56.5
North Part, Urban	57.5	50.9	44.9	39.2	33.7	541.1
North Part, Rural	8.1	8.4	9.2	10.4	11.8	57.9
% North Part of total change: urban	46.8	52.1	55.0	55.8	54.6	53.6
South Part, Urban	21.0	24.2	26.4	27.5	26.7	206.5
South Part, Rural	8.1	9.4	10.0	10.0	8.6	55.4
% South Part of total change: urban	57.5	60.1	63.6	67.6	73.4	66.1
(1) URBPOP(i+5)-URBPOP (i)	453	632	845	1,081	1,306	4,317
(2) TOT.POP(i+5)-TOT.POP(i)	920	1,170	1,482	1,846	2,221	7,639
(1) (2)	49.2	54.0	57.0	58.6	58.8	56,5

TABLE (7)

COMPARISON OF THE RELATIVE ROLE OF URBAN POPULATION CHANGE IN TOTAL POPULATION CHANGE: 1950 - 1975 AND 1975 - 2000

Country	1950-1975			1975-2000		
	% Urban 1975	% Total Increase Urban 1950-1975	Difference	% Urban 2000	% Total Increase Urban 1975-2000	Difference
Bahrain	78.5	91.0	12.5	85.3	87.8	2.5
Egypt	43.4	57.8	14.4	54.8	68.3	13.5
Iraq	61.4	84.5	23.1	79.3	92.2	12.9
Jordan	55.4	74.2	18.8	74.0	87.0	13.0
Kuwait	83.8	88.2	4.4	97.2	104.8	7.6
Lebanon	68.6	118.6	50.0	86.9	147.8	60.9
Oman	6.1	10.5	4.4	15.1	20.4	5.3
Qatar	83.6	87.0	3.4	91.4	95.4	4.0
Saudi Arabia	58.7	92.5	33.8	80.2	94.3	14.1
Syria	45.4	58.5	13.1	57.4	66.2	8.8
United Arab Emirates	79.8	88.5	8.7	77.8	77.1	-0.7
Yemen	16.6	34.3	17.7	37.5	56.5	19.0
North Part	11.0	26.4	15.4	33.4	53.6	20.2
South Part	34.3	57.6	23.3	50.8	66.1	15.3

TABLE (8)

ZERO ORDER CORRELATION COEFFICIENTS BETWEEN 1990 LEVEL OF URBANIZATION AND EIGHT INDICATORS OF SOCIAL AND ECONOMIC ORGANIZATION AND HEALTH

Independent Variables	URB	DEN	%LGA	GDP	%TPEA	%EANA	%EAS	IMR
Size	-.352	.017	-.253	-.637	-.621	-.582	-.374	.253
Density	.418		.451	.000	.121	.363	.379	-.588
%LGA	.621			.115	.374	.577	.368	-.396
GDP	.709				.846	.692	.632	-.483
%TPEA	.692					.566	.456	-.335
%EANA	.830						.865	-.829
%EAS	.714							-.852
IMR	-.681							

Size: total population
Density: persons per square kilometer
%LGA: per cent of urban population in largest agglomeration
GDP: per capita gross domestic product
%TPEA: per cent of total population economically active
%EANA: per cent of economically active population in non-agriculture
%EAS: per cent of economically active population in service
IMR: infant mortality rate

TABLE (9)

POPULATION DISTRIBUTION VIEWS AND POLICIES OF COUNTRIES IN THE ESCWA REGION GROUPED BY 1975 URBANIZATION LEVEL: 1976 - 1989

Countries by Urbanization Level 1975	1976	1978	1980	1983	1986	1989
High						
Bahrain	A/N	A/N	A/N	A/N	A/N	A/N
Qatar	A/N	A/N	A/N	A/N	A/R	A/R
Kuwait	A/N	A/N	A/N	A/N	PA/N	PA/N
United Arab Emirates	PA/D	PA/D	PA/D	PA/D	PA/D	PA/A
Moderately High						
Iraq	PA/D	PA/D	PA/D	PA/D	PA/D	PA/D
Jordan	I/R	I/R	I/R	I/R	PA/R	PA/D
Lebanon	PA/D	PA/D	PA/D	PA/D	PA/R	I/D
Saudi Arabia	PA/A	PA/A	PA/A	PA/A	PA/A	PA/A
Moderately Low						
Syria	PA/D	PA/D	PA/D	PA/D	PA/D	PA/D
Egypt	I/D	I/D	I/D	I/D	I/D	I/R
Yemen (South Part)	PA/D	PA/D	PA/D	PA/D	PA/D	PA/D
Low						
Yemen(North Part)	PA/N	PA/N	PA/N	PA/N	PA/N	PA/N
Oman	PA/D	PA/D	PA/D	PA/D	PA/D	PA/D

Views: A = Appropriate
PA = Partly Appropriate
I = Inappropriate

Policy: N = No policy
D = Decelerate
R = Reverse
A = Accelerate

REFERENCES

Abu-Aianah, Fathi. 1982a. "Primate Cities in the Arab World." In Population and Development in the Middle East. Baghdad: Economic Commission For Western Asia (ECWA).

_____. 1982b. "Urbanization in the Middle East in World Perspective." In Population and Development in the Middle East. Baghdad: Economic Commission For Western Asia (ECWA).

Abu-Lughood, Janet. 1984. "Theories of Development and Population: A Reassessment and an Application to the Arab World." Population Bulletin of ECWA: 25. December 1984. pp 21 - 48.

El-Attar, Mohamed. 1990. "Egypt." In International Handbook on Internal Migration, edited by Nam, Serow and Sly. New York: Greenwood Press.

Berry, Brian. 1981. Comparative Urbanization. New York: St. Martin's Press.

Dabla, Bashir. 1986. "Migration and its Sociological Impact in Saudi Arabia." Population Bulletin of ESCWA: 29. December 1986. pp 77 - 92.

Davis Kingsley. 1972. World Urbanization 1950 - 1970. Volume II: Analysis of Trends, Relationships and Development. Berkeley: University of California Press.

Goldstein, Sidney, and David F. Sly. 1975a. Basic Data Needed for the Study of Urbanization. Dolhain: International Union for the Scientific Study of Population. Ordina Editions.

_____. 1975b. The Measurement of Urbanization and Projection of Urban Population. Dolhain: International Union for the Scientific Study of Population. Ordina Editions.

_____. 1977. Patterns of Urbanization: Comparative Country Studies. Dolhain: International Union for the Scientific Study of Population. Ordina Editions.

Kossaifi, George. 1985. "Forced Migration of Palestinians from the West Bank and Gaza Strip 1967 - 1983." Population Bulletin of ESCWA: 27. December 1985. pp 73 - 108.

Al-Nasr, Ahmad, and Muhammad Attiya. 1985. "Urban Immigration and Outmigration in Egypt." Population Bulletin of ECWA: 26. June 1985. pp 9 - 38.

Obudho, Robert A.1985. Demography, Urbanization and Spatial Planning in Kenya: A Bibliographical Survey. London: Greenwood Press.

Portes, Alejandro. 1979. "On the Sociology of National Development: Theories and Issues." In Third World Urbanization, edited by J. Abu-Lughod and R. Hay. New York: Methuen.

Preston, Samuel. 1979. "Urban Growth in Developing Countries: A Demographic Reappraisal." Population and Development Review: 5, No. 2, June 1979. pp 195 - 216.

Al-Qutub, Ishaq. 1984. "Towards a Strategy for Urbanization in the Arab World." Population Bulletin of ECWA: 24. June 1984. pp 27 - 64.

Al-Sharif, Abdul-Rahman. 1986. "Population Migration to Southwest of Saudi Arabia: Its Motives and Impacts." Population Bulletin of ESCWA: 28. June 1986. pp 125 - 142.

Sly, David F. 1988. "Data and Measurement Problems in Aggregate Analysis." In Assessing the Demographic Consequences of Major Development Projects. New York: The United Nations. (ST/ESA/SER.R/81). pp 139 - 160.

Tabbarah, Riad. 1982. "Population, Human Resources and Development in the Arab World." In Population and Development in the Middle East. Baghdad: Economic Commission for Western Asia (ECWA).

United Nations. 1987. World Population Policies. Population Studies, Vol. I. New York. (ST/ESA/SER.A/102).

_____. 1988a. World Demographic Estimates and Projections, 1950 - 2025. New York. (ST/ESA/SER.RR/79).

_____. 1988b. "World Population Trends and Policies". Population Studies, No. 103. New York. (ST/ESA/SER.A/103).

_____. 1989a. "Prospects of World Urbanization, 1988". Population Studies, No. 112. New York. (ST/ESA/SER.A/112).

_____. 1989b. "Trends in Population Policy". Population Studies, No. 114. New York. (ST/ESA/SER.A/114).

_____. 1989c. World Population Policies. Population Studies, Vol. 2. New York. (ST/ESA/SER.A/102/Add.1).

United Nations, Economic and Social Commission for Western Asia (ESCWA). 1987. Demographic and Related Socio-Economic Data Sheets No. 5. Baghdad. (E/ESCWA/SDP/87).

Population Spatial Distribution Policies in Egypt

*Heba Nassar**

* *Faculty of Economics and Political Science, Cairo University*

INTRODUCTION

During the Twentieth Century Egypt has experienced a substantial redistribution of its population from rural to urban areas. Along with this general urbanizing of the Egyptian population there has been a concomitant trend of concentration occurring within the urban sector. Regional and sectoral disparities in socio-economic development and an unbalanced approach to urbanization have encouraged migration and contributed to both trends. Today a third of the population is living in cities of 100,000 or more, and spatial distribution problems are readily acknowledged.

In response to these changes, population spatial distribution policies have emerged as major foci in the context of demographic and development issues (United Nations, 1983). The government has embarked on a number of urban settlement projects with no clear spatial distribution policy in place. Given the growing concern over the role of distribution policies in the development process plus the lack of a clear consensus over what policies to pursue, there appears to be a clear need for a timely and comprehensive review and assessment of both explicit and implicit policies impacting spatial distribution within the country (Fuchs and Demke, 1984: 76 - 78).

To accomplish this end the present paper is divided into three major sections. In the first section we examine the pattern of population distribution in Egypt giving particular attention to its changing nature and the mechanisms underlying this change. We will examine the increased concentration of the urban population within the Cairo metropolitan area and link this to the uneven distribution of social and economic opportunity. In the second section of the paper we turn our attention to an analysis of the policies affecting the redistributional trends identified in section one. We identify the various redistributional strategies which have emerged and evaluate the policy instruments employed within the socio-economic context of Egypt. In the third section we summarize our major findings and suggest a set of recommendations.

Finally, there have been three central questions which have guided our approach. We feel that answers to each are crucial to the development of effective spatial distribution policies in general, and for those in Egypt in particular. First, were population distribution policies effective in attaining spatial distribution goals? Second, what factors can help us better understand why some policies are a success and others are unsuccessful? And third, how does the socio-economic context influence the effectiveness of redistribution policy?

THE CHANGING NATURE OF POPULATION DISTRIBUTION

Egypt, as a mid-income country, is confronted with a number of problems typical of countries with modernizing economies and rapid population growth. When considering urbanization, International reports frequently reduce these problems to a single dimension such as the per cent urban, and relate this to economic factors and various other aspects of population (Arab Republic of Egypt, 1979: 40 - 41). This approach fails to acknowledge both the multidimensionality of population spatial

distribution and the complexity of its reciprocal relationships with economic development (Richardson, 1981: 8 - 9).

Figure 1

Population Distribution Problems
Within the Egyptian Socio-Economic Setting

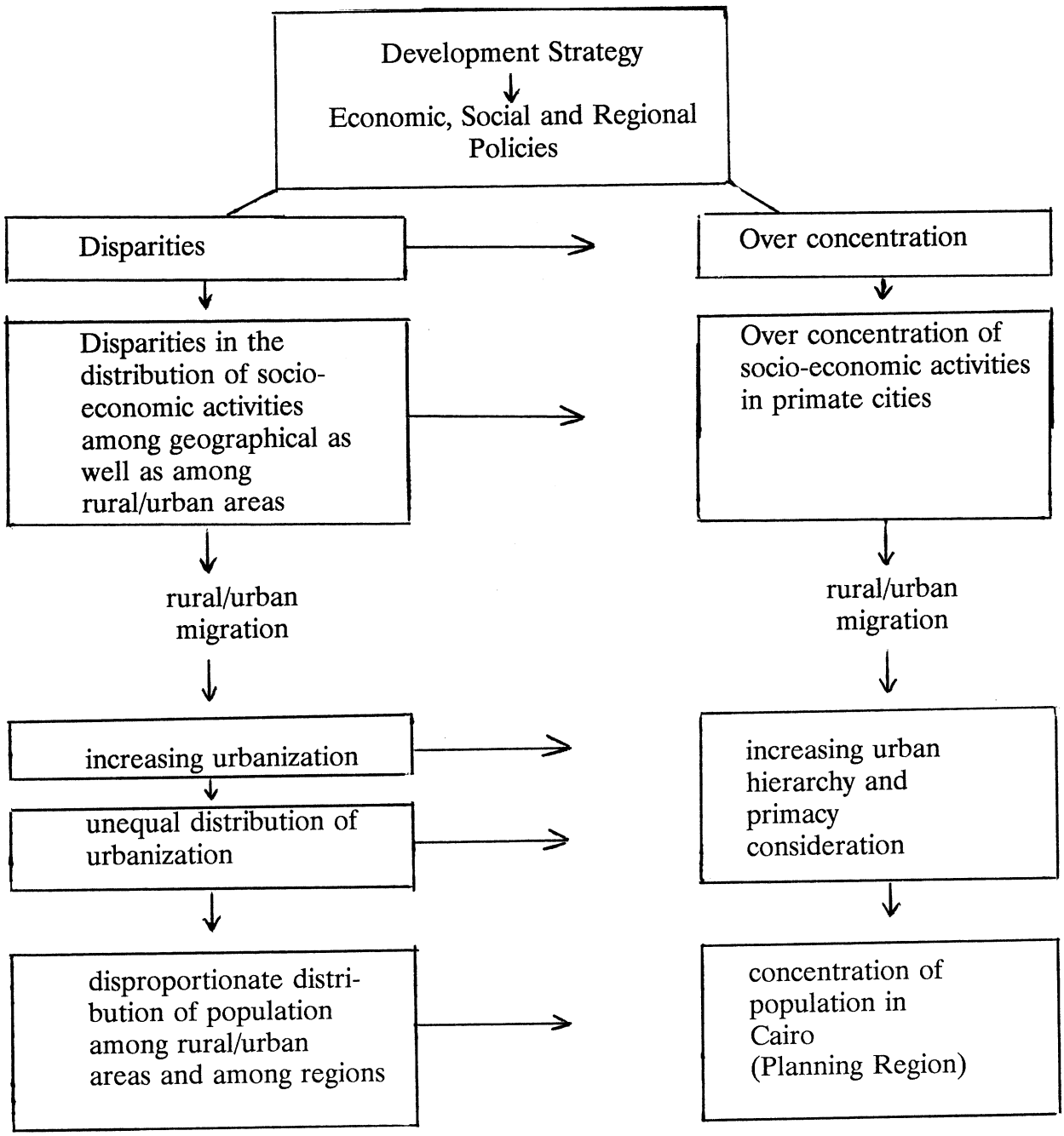


Figure 1 attempts to capture some of this complexity. It shows how, in the Egyptian case, disparities in the distribution of population and socio-economic activities among regions have led to an over concentration of population and economic activities in urban areas in general, and in the primate city of Cairo in particular. The points we wish to emphasize are both the multidimensionality of spatial distribution and the interrelationship between population distribution and economic activity.

Accordingly, in this section of the paper we want to analytically examine population distribution giving particular attention to several of its dimensions from a demographic perspective. In the second part of this section we will consider some of the socio-economic dimensions of population distribution and relate these to the demographic as depicted in Figure 1.

The Demographic Dimensions of Population Distribution: No formal definition of urban existed in Egypt prior to 1960, and the 1986 Census was the first to provide separate historical data on the rural and urban population. Four types of administrative areas are treated as urban in Egypt:

1. Urban governorates: Cairo, Alexandria, Port Said and Suez
2. Capitals of governorates
3. Towns, capitals or centers of districts or markets
4. Towns that are defined as urban and which have no rural settlements administratively attached to them

Administrative procedures exist which allow areas to be reclassified from rural to urban and which permit annexation of rural villages to previously existing urban areas. It is within the context of these parameters that population distribution and redistribution can be discussed.

Between 1907 and 1986 the population of Egypt increased from 11.2 million to 48.2 million, an increase of 330 per cent over the 80 year period. The data in Table 1 show that prior to the mid 1970's the rate of urban population growth exceeded the rate of rural population growth by a considerable margin. After the mid 1970's, however, the gap between urban and rural population growth narrowed considerably, and actually approached zero. The narrowing of this growth differential is clearly reflected in the country's changing level of urbanization. For example, between 1907 and 1937 the data indicate that the level of urbanization increased from 17.2 to 28.2 while from 1937 to 1976 it increased from 28.2 to 43.8. Yet, during the last decade covered in the Table it increased by a mere one-tenth of one per cent.

If we look at the pace of urbanization, we can see that the downward trend in the speed at which urbanization was occurring began during the late 1930's and continued more or less uninterrupted (except for a short period during the 1960's) to the end of the period covered in Table 1. Nevertheless,the level of urbanization increased most rapidly during the period from the mid 1930's through the latter part of the 1940's which was also the time when a large number of villages were reclassified to towns and when a number of villages were being annexed to existing urban places (Arab Republic of Egypt, 1983: 239). The marked slowdown in urbanization after 1976 has been influenced

by emigration patterns.

While the above data tend to suggest a relatively stagnating picture of population redistribution within Egypt and an urban system experiencing declining change, the data in Table 2 alter this perspective considerably. These data clearly highlight the enhanced role of a few places in the urban system generally and of Cairo in particular, and how this is changing. The Egyptian urban population is concentrated in the cities of Cairo and Alexandria. In 1986 these governorates contained over 42 per cent of the total urban population in the country. While this represents a decline over the 48 per cent of the urban population these places housed in 1947, this is largely a statistical artifact of the classification system.

The Cairo Planning Region is a large urban agglomeration composed of an area (the Cairo, Giza and Kalyoubia governorates) which is over 75 per cent urban and which extends well beyond the formal boundaries of only the Cairo governorate (Arab Republic of Egypt, 1983: 14). Thus, looking only at Cairo where the share of the country's total urban population declined substantially from 33.4 per cent in 1947 to 20.6 per cent in 1986 is extremely misleading. Considering the entire Planning Region, we can see that by 1986 this single agglomeration contained nearly 44 per cent of the country's total urban population and more than 25 per cent of all persons living in the country. In 1947 these figures were 38 and 19 per cent respectively, clearly showing that the former indicate not merely an increasing concentration of the total, but also an increasing concentration of the urban population in this single area. If we look at the remaining entries in Table 2, we can see that nearly all places incurred losses along these dimensions, and that among those which did not, gains were relatively small.

Despite this there is evidence to suggest a potential for expansion of the country's urban system from the bottom up. Growth in the number of towns and villages in lower and upper Egypt has been substantial (see Table 3). For example, the number of towns in lower Egypt increased from just 51 in 1947 to 90 in 1986, while in upper Egypt they increased from 44 to 70 during this time. Over this same period the per cent of population urban in the two regions nearly doubled from only 12 in 1947 to 23 in 1986. Similarly, there is a large number of villages in both regions which could grow to become towns or be annexed to already existing urban places. Nevertheless, it is clear that urbanization in the governorates of lower and upper Egypt remains lower than urbanization in the country as a whole, and that the dominant trend has been toward increasing concentration of the urban population (Clark, 1978: 29).

Finally, although the rank-size distribution does not provide us with any information which is directly useful in the policy making process, its calculation is instructive to the extent that it provides us with some summary measures which do depict the extent of urban concentration (Ainah, 1981: 291). The rank-size distribution has been calculated for cities of 50,000 or more in 1986 and is shown along with population size data for all cities of 50,000 or more at each census date from 1947 through 1986 in Table 4. A number of observations can be made from these data. First, by 1986 some 43 per cent of the population living in cities of 50,000 or more would have to be redistributed in order to make this population conform to the theoretical distribution of the rank-size theory. Second, all of this maldistribution is the product of only three cities

(Cairo, Alexandria and Giza) having sizes larger than their theoretically expected size. That is, 47 of the 50 largest cities in Egypt were underpopulated while only the three largest appear overpopulated. Third, there has been a marked proliferation in the number of cities with 50,000 or more people in them over the 40 year period; and fourth, much of this increase in the number of places with 50,000 or more has been concentrated in the last half of the period.

Over the entire 40 year period the number of places with 50,000 or more inhabitants increased from 16 to 49, or by over 200 per cent. Twenty-four or nearly 70 per cent of all cities added during the whole interval were added during the last half. Yet, the enhanced position of Cairo within the urban system of Egypt is suggested by the fact that over the 20 year period from 1966 to 1986 its population growth (1,832,983) exceeded the total 1986 population (1,746,985) of the 23 new places added to the population of persons in cities with 50,000 or more. That is, the population growth of Cairo alone accounted for more of the population growth in cities of 50,000 or more than did all 23 places which were reclassified over this period.

Finally, Table 5 shows population concentration coefficients for governorates. These coefficients tell us the extent to which population is distributed in relation to the distribution of land among governorates. Thus, a positive value for a governorate tells us that governorate has a per cent of the population which is equal to the per cent of land within it, while a negative value tells us that the governorate has a greater share of land than population. The sum of all positive or all negative values tell us how much population would have to be redistributed to make the population distribution equal to the distribution of land among the governorates (El Kilani and Makzoud, 1982: 72 - 73). Nine areas have a greater share of population than their share of land. In total, nearly 26.5 per cent of the population would have to be redistributed to make each governorate have a per cent of population equal to their per cent of land. The greatest disparity (11.95) in this sense is in Cairo, followed by that (5.16) for Alexandria. The only other areas to show a significant deviation are the other two governorates (Kalyoubia, 2.38 and Giza 4.67) of the Cairo Planning Region. Thus, the Cairo Planning Region accounts for 72 per cent of the total over concentration and is clearly a relatively overpopulated region.

Cairo, like many other large urban agglomerations, has had a number of its typical urban problems exasperate by this over concentration of population (Clark, 1981: 248 - 249). With a population density (28,258) more than five times greater than the second most dense governorate in Egypt (Port Said, 5,545), it comes as no surprise that its housing density is also the highest in the country. Shorter (1989) has documented how housing units were first constructed on top of one another to meet demand in the limited space of the city, and how as demand continued to rise these previously existing units were subdivided. As housing demand has increased, and the quality of housing declined, prices of housing for the working poor and middle class have risen sharply. In many areas slum and squatter settlements dominate the landscape. This concentration of people and structures has, in turn, created a high demand and placed a heavy burden on an extremely overloaded highway system and an aging public transportation system.

Along with the concentration of people and structures in the Cairo Region there is also a heavy concentration of some of the country's most air and water polluting industries: in Cairo much of the Country's iron, steel and coal industry and in the area of Kalyoubia the cement and phosphatic fertilizer industry. Giza is dominated by the chemical producing industry which also adds to the environmental problems of the area (CAPMAS, 1989).

Despite the concentration of these industries in the area, unemployment and underemployment continue as major problems. For example, according to the 1986 Census the country's unemployment rate was 14.7 per cent, but in the Cairo governorate the unemployment rate was 17.3 per cent (Central Agency for Public Mobilization and Statistics, 1987: 45 & 47). The area also appears to have a disproportionate share of many of the Country's other social and economic problems. This is vividly reflected in the available crime statistics. The three governorates making up the Cairo Planning Region contain 25.5 per cent of the country's total population, but account for 61 per cent of the crimes in the country (National Center for Social and Criminological Research, 1986).

The Socio-economic Aspects of Population Distribution: We feel that the spatial distribution of population generally, and the urban system in particular, is an outcome of the different patterns of economic and regional development policies. The resulting uneven distribution of socio-economic conditions explains the flow of migrants to urban areas, and most notably to the capital region. The disparities in socio-economic conditions across governorates and within governorates by the urban and rural status of areas is captured by the data presented in Table 6. Here we show the quality of life index (PQL1) for the urban governorates and separately for the urban and rural components of the governorates of Lower and Upper Egypt in 1976 and 1986.

First, these data clearly show the large disparity in quality of life between the urban governorates and the governorates of Lower and Upper Egypt in both 1976 and 1986. The average quality of life index for the urban governorates was more than twice as high as the average index for the governorates of Lower Egypt and three times as high as the average index for Upper Egypt governorates in 1976. Indeed, at this time there was no governorate outside the urban governorates which had a quality of life which exceeded that of the urban governorate with the lowest quality of life. Despite this, there was a considerable amount of heterogeneity among both the urban governorates and the governorates of Lower and Upper Egypt. For example, the urban governorate (Port Said) with the highest quality of life had an index value nearly one-third higher than the urban governorate (Cairo) with the lowest quality of life. Among the governorates of Lower and Upper Egypt the range in index values was even greater. Here the two governorates (Damietta and Ismailia) which had the highest quality of life had index values which were more than three times greater than those of the two governorates (Fayoum and Minya) with the lowest index values.

Second, by 1986 the disparity between the urban governorates and the governorates of Lower and Upper Egypt had narrowed, and the vast majority of this change was the result of increases in the average index values for the governorates of

Lower and Upper Egypt. Among the urban governorates the average index value changed very little despite some substantial differences in the change among individual governorates. The Suez and Cairo governorates each had index values which increased between 1976 and 1986, while the index value for Alexandria remained unchanged and that for Port Said declined dramatically.

Finally, it is in the comparison of the urban and rural components of governorates in 1986 outside of the urban governorates that some of the more complex observations can be made. If we look at the governorates within Lower Egypt, we can see that in all but three governorates the quality of life index is higher in urban than rural areas. Indeed, in five of the nine governorates within Lower Egypt the urban quality of life index exceeded the quality of life index in Port Said (the urban governorate with the lowest index value in 1986). Among the governorates of Upper Egypt, on the other hand, it was more common for the rural areas to have a higher quality of life index than the urban areas within the same governorate. Yet within Upper Egypt the quality of life index values in both rural and urban areas were lower than in the vast majority of rural areas in Lower Egypt.

In short, although urban governorates on average had a higher quality of life than the governorates of both Lower and Upper Egypt, many urban areas in Lower Egypt had a quality of life index which exceeded the value of the quality of life index for the urban governorate with the lowest quality of life index. Moreover, many rural areas in Upper Egypt had a higher quality of life than did urban areas in Upper Egypt, but in most cases these values were lower than those for rural areas in Lower Egypt. Thus, disparities in the quality of life are not simply disparities between the urban governorates and the governorates of Lower and Upper Egypt, nor are they merely a function of the urban and rural status of areas. Rather, they reflect a more complex dualism which cuts across rural/urban and regional boundaries and reflect the pattern of development known as "development from above." This particular strategy emphasizes investment in a few economic sectors in a small number of areas under the assumption that concentrated progress will reap benefits for and spread through the whole country.

In the case of Egypt this concentration has been in the industrial sector and in the geographical areas of Cairo and Alexandria. For example, according to the 1989 - 1990 plan, the per cent of total public investment in the Cairo governorate was 21.5 while for the total Cairo planning region it was 31.1 per cent. In the case of Alexandria the corresponding figure was 12.7 per cent. Thus, these two areas accounted for 43.8 per cent of the total public investment while no other single governorate received more than about 4.5 per cent, and the vast majority received less than 2.5 per cent. Accordingly, regional disparities continue to be exasperated as does the urban-industrial bias largely at the expense of the rural-agricultural sector. Quite clearly then, this "development from above" strategy as implemented in Egypt displays an urban bias concentrating development efforts and capital on the industrial sector at the expense of the agricultural sector in rural areas.

This problem has been further compounded by the integration of Cairo into the international system of cities. The presence of many multinational corporations and banks have given Cairo more of an international than domestic investment strategy.

Target social and sectoral groups in other regions, most notably Upper Egypt, have been neglected. Capital intensive techniques in the productive sector, high technology, and large projects have been encouraged at the expense of labour intensive, small scale, regionally based projects.

POPULATION SPATIAL DISTRIBUTION POLICIES

Analyzing Population Spatial Distribution Policy: Although demographers, sociologists, and economists have given an increasing amount of attention to population spatial distribution policies in recent years, there is still no framework generally applicable to the analytical study of such policies(Urzua, 1981: 61). This results, in part, from the fact that there is no consensus about what policies constitute population spatial distribution policies, and, in part, from lack of agreement about the significance of the various components of such policies and how they are interrelated. Moreover, population spatial distribution policies are never developed and implemented in a policy-free environment. That is, population spatial distribution policies are always developed and implemented in a context where they exist alongside other policies and have been preceded by other policies, some of which may themselves have been population spatial distribution policies. Indeed, it is even possible for some policies which are not formulated to influence the spatial distribution of population to have components which do this, and for these components to have an unintended consequence which may contradict or mitigate the intended consequences of policies which have been explicitly formulated to influence population spatial distribution.

With these issues in mind we have attempted to capture what we believe are the salient features of the context within which population spatial distribution policies in Egypt have been developed, formulated, and implemented. These are presented in Figure 2. The large rectangle at the top of the figure sets forth the basic development strategies which have been followed by the Egyptian government, while the next rectangle tells us that these strategies have been pursued by both explicit and implicit policies which have operated on the human settlement scheme directly through regional, urban, and rural oriented policies, and indirectly through other policies related to the broader development strategy and its policy instruments.

Thus, the figure helps to highlight what we think are the important features of policy generally which must be considered in order to assess spatial distribution policy specifically. Explicit policies are those which derive from official planning aimed directly at influencing population distribution by manipulating a demographic variable. Implicit policies, on the other hand, entail economic and social strategies which indirectly influence the pattern of migration and human settlement. Examples here include agricultural, industrial, educational, and investment policies.

Implicit and explicit policies can be examined according to their sectoral context (Richardson, 1984). Urban/rural and regional oriented policies focus on the construction of new towns and settlements, the upgrading of slums and squatter communities, redevelopment of cities, reception centers for migrants and low cost housing. Some of these policies are proactive and intended to influence specific demographic variables,

while others are proactive and represent a response to the consequences of population distribution strategies (Lacquian, 1981: 103 - 108). Rural oriented policies emphasize such things as the expansion of off-farm employment opportunities in rural areas and provisions of social services covering informal education, medical care, labor intensive innovation and the creation of rural market towns or secondary cities (Rodinnelli, 1983: 202). Rural oriented policies are generally geared towards two goals: stopping the outflow of migrants, and encouraging an organized return migration (Findley, 1984: 154 - 157). Regional policies emphasize an effort to decrease socio-economic regional disparities. Administrative decentralization strategies are one example here (Urzua, 1981: 68).

All rural, urban and regional oriented policies are, in turn, affected by the various development strategies that have been adopted. Polarization reversal, growth poles, intra- and inter-regional decentralization strategies contribute directly to the type of policies opted for. The growth pole strategy establishes a polarity of certain geographic areas serving as counter-magnets to continued population and economic expansion in big cities (United Nations, 1973: 21). Polarization reversal reflects a policy of abridging inter-regional and inter-urban differences by eliminating factors contributing to polarization toward the primate city (Richardson, 1984: 11). Inter-regional decentralization strategies focus on the dispersion of economic activities to curtail the relative dominance of the primate city in investment and employment structures. Inter-regional strategies, on the other hand, concentrate on the redevelopment of big cities along structural parameters. The construction of satellite cities, highways, subways, and network corridors are among the various infrastructural means for achieving this goal (United Nations, 1973: 222). In their totality, the above strategies aspire to slow the growth of primate cities and the development of an urban hierarchy. They are aimed at the emergence of a balanced rural/urban regional pattern of growth (Richardson, 1984: 11).

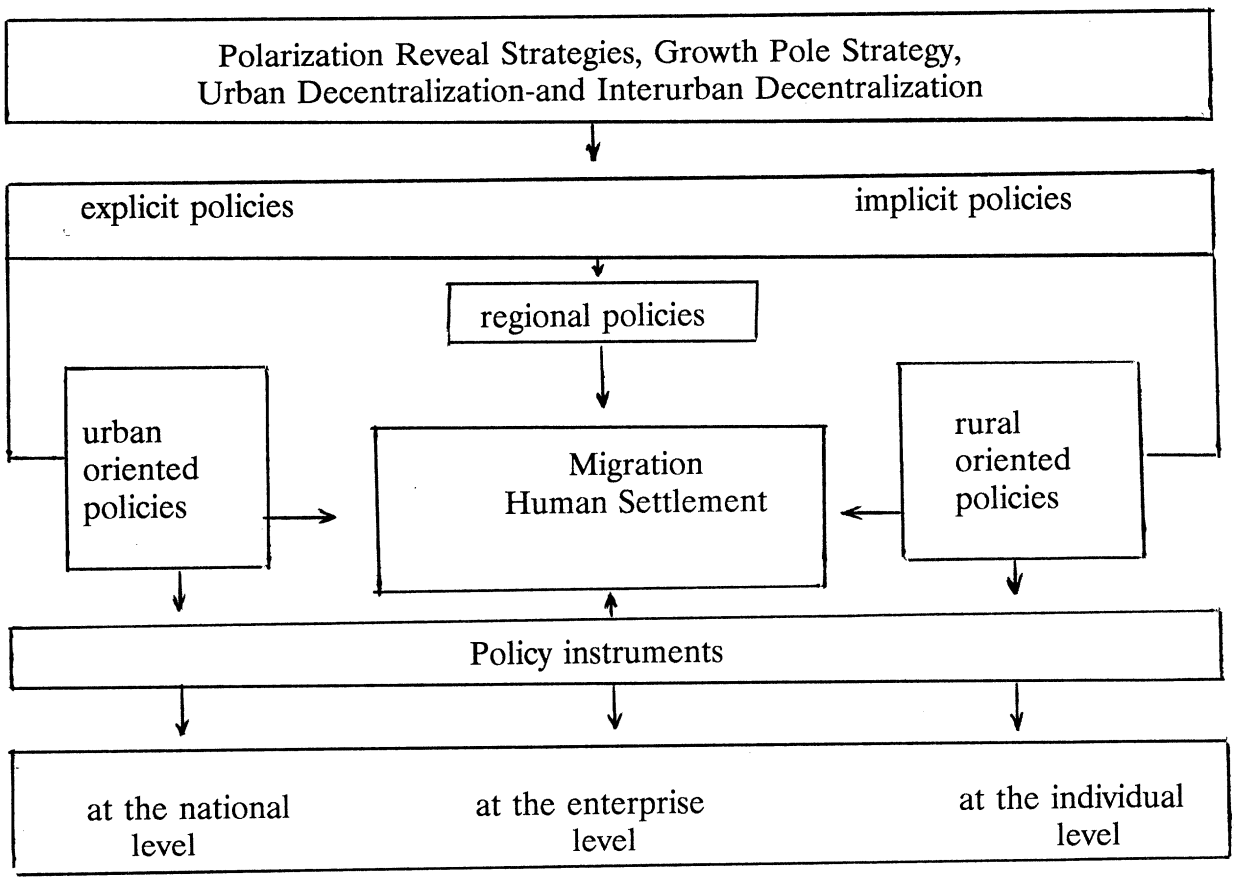
Finally, policy instruments refer to a wide range of structural and functional imperatives and tools which are used to implement policies. Subsidies, tax incentives, infrastructure construction, housing, social services, industrial and investment allocation are typical examples of policy instruments. Some instruments are implemented at the national level (housing and infrastructure for example), some at the enterprise level (grants, loans, and taxes), and some at the individual level (migration subsidies, human resource investment and social services) (Richardson, 1984: 273). The relationship between population strategies, policies, and policy instruments and their impact on human settlements and migration within the context of development strategy is shown in Figure 2.

Egyptian Spatial Distribution Policy Goals: Although the Egyptian Government has been directly involved in population programmes since the 1950's, the first National Population Policy was not issued until 1973. This was a comprehensive statement acknowledging the importance of four dimensions of the population problem: natural growth, spatial distribution, characteristics, and structure. Spatial considerations were given special attention in President Sadat's Working Paper of October 1974. Although the paper dealt primarily with the demographic aspects of population distribution, down playing the socio-economic, it did emphasize redrawing the map of Egypt.

Four spatial population distribution goals were initially identified: deconcentration of population away from the large cities and Delta, reconstruction of the Canal cities, redirecting encroachment and the spread of urban areas into agricultural land, and the reclamation and development of uninhabited desert areas (The World Bank, 1983: 2). By the 1980's a National Urban Policy had emerged which was largely focused on Cairo, Alexandria, and the Canal and Delta cities all of which have an industrial base. A lower priority was given to short term efforts to decentralize Upper Egypt and the more remote areas. A long range urban settlement scheme for greater Cairo was developed which included a settlement policy to absorb the large increase in population expected to occur in this area. Table 7 contains a basic summary of the broader goals for each area.

Figure 2

Strategy (Style) of Development



POPULATION DISTRIBUTION STRATEGIES, POLICIES AND POLICY INSTRUMENTS

Intra-regional and Inter-regional Decentralization Strategies: The goals set forth in Table 7 reflect both an intra-regional and an inter-regional strategy. A strategy of intra-regional decentralization was adopted for the Long Range Development Scheme

of the Greater Cairo Region where the population is expected to reach 16.5 million by the turn of the century. It is expected that about 54 per cent of the increase over the period from 1982 - 2000 will be absorbed in the present urban region, residential projects already committed, vacant land, and on the fringes in desert and agricultural areas. The remaining 46 per cent of the increase in population over this period will be absorbed in new towns and settlements (General Organization for Physical Planning, 1983).

Four main approaches have been considered in the master plan for the Greater Cairo Region: homogeneous sectors, new settlements, development corridors, and urban region. The main goal of the plan is to stop urban encroachment into the surrounding agricultural land, and to achieve intra-regional decentralization. To hold back expansion into agricultural areas, the plan prohibits the construction of local roads near the urban frontier, and the Ring Road around the agglomeration protects encroachment beyond it. Decentralization, on the other hand, is being encouraged through the Ministry of Development's programme to construct ten homogeneous sectors each with a capacity to house 200,000 to 250,000 inhabitants who will have available the full range of urban services (Ministry of Development, 1988). New towns and settlements, which represent the core of the intra-regional strategy, are planned to provide a source of economic activities to link this region with other areas of Egypt along development corridors. A similar plan of intra-regional decentralization has been suggested for Alexandria, except here growth will be encouraged to the northwest and through the construction of New Ameriya City (Ministry of Development, 1981).

An inter-regional decentralization strategy, on the other hand, is being pursued in the Canal region. Elements of a polarization reversal strategy can be found in the plan for the Suez Canal Region. The strategic objective in this region is to generate a counter-magnet pole. Plans here call for infrastructural improvements, service sector development, and the expansion of an industrial base along with administrative changes (World Bank, 1983). Administrative decentralization was initiated in 1979 when the rural development bank began several projects in the area.

Population Spatial Distribution Policies: A number of different policy approaches have been tried in Egypt to achieve population decentralization. This effort is reflected in both urban and rural oriented policies. Chief among these has been the urban oriented policy of developing new towns and settlement areas. This is well illustrated within the efforts of the Cairo Planning Commission. In 1968 this Commission presented a plan to structure Cairo's growth around the establishment of four new satellite cities to be located in desert areas. By 1977 work had begun on the construction of Tenth of Ramadan and Sadat City as alternatives to Cairo. Similarly New Ameriya City was proposed and is being developed as an alternative to Alexandria. Commitment to this approach was formalized in 1979 with the passage of Law 59 establishing the New Urban Community Authority which was given the authority to construct new cities and communities.

Rural and regional policies also reflect the objective of decentralization through their emphasis on local development and the decentralization of administrative functions. The first serious and effective attempt to decentralize administration started with Law 52 in 1975 which was passed after a long tradition of centralization. This law passed the

authority and responsibility for local development to local governments which emphasized raising the standard of living in rural areas and infrastructure development in the cities of Upper Egypt (USAID, 1980: 106 - 107).

Spatial Distribution Policy Instruments: Various policy instruments have been used in Egypt to decentralize growth (Fuchs and Demke, 1984: 70 - 71). To a large extent positive incentives have been used to direct and encourage growth in specific areas such as new towns, growth corridors, and fringe areas in the desert. For example, direct investment in industrial and residential infrastructure in new towns and settlement areas has been encouraged. Laws passed in 1974 and 1979 gave free zones and new urban communities authority to offer a number of positive incentives which have included:

Exemption from customs duties and other import duties;

Exemption from all taxes and duties on interest due on loans and credit facilities granted to the Authority for financing projects;

Capital invested in Authority projects and works can receive the same special privileges as those given to foreign projects in the free zones investment law;

Occupants of real estate in the new communities can be exempted from property taxes for ten years;

Land reclaimed within the boundaries of a new community can be exempted from property taxes for ten years;

Industrial profits derived in new communities are exempted from commercial and industrial profits taxes, and there is an exemption from income tax on mobile assets and related changes for a period of ten years;

Projects can be exempted from the general tax on revenues.

Negative instruments, on the other hand, have been used as disincentives to growth and urban development in agricultural areas, most notably those around Cairo. Construction of new buildings or establishments, for example, are prohibited without the explicit approval of the Ministry of Agriculture. Law 59, passed in 1979, prohibits the construction of new towns, private agencies, government bodies, and private investors from building on agricultural land. Law 43, also adopted in 1979, authorizes local governments to determine the boundaries of their industrial zones, and thus, allows each to regulate urban development (Arab Republic of Egypt, 1979). Finally, Law 3, established in 1983, provided the legal framework for physical planning in the country, and gave a number of control and enforcement provisions to local authorities (Arab Republic of Egypt, 1983).

EVALUATION OF POPULATION SPATIAL DISTRIBUTION POLICIES

In the following paragraphs we evaluate some urban, rural, and regional policies giving particular attention to their effectiveness in achieving targeted strategies. Policy instruments are evaluated as are the explicit policies within the socio-economic setting of Egypt. Finally, we will examine the role of implicit policies.

Urban Oriented Spatial Distribution Policies: As noted above, urban oriented policies are primarily those which are intended to bring about population deconcentration in the Greater Cairo Region. These have been given top priority by the Egyptian Government, and represent the major thrust of the deconcentration programme. Reasonably accurate and up to date data exist on the establishment and development of new towns and settlement projects. Table 8 contains data on a number of developmental dimensions for each of the seven new towns and settlements which are part of the greater Cairo programme, while Table 9 contains population and employment targets along with some information showing the economic base and distance from urban centres.

The goal of constructing new towns and settlements to absorb the increase in population in the Greater Cairo Region represents a long term, as opposed to an intermediate objective. In 1980 it was expected that the population of the area would increase from 41.7 to 66 million by the turn of the century, a total increase in excess of 24 million (Arab Republic of Egypt, 1982). Although a number of new towns and communities are attracting population (10th of Ramadan, 6th October, Sadat, el Ameriya, 15th May, el Salam, el Obour, and el Salheya), the data in Table 9 show that their targets for the end of the Century are only 2,825,000, or less than 12 per cent of the total increase expected for the area. Although this figure does not include the targets for a number of other new towns and the targets for the homogeneous sectors (see Table 9), it is important to note that these places are still under planning, and their absorption capacity is unlikely to be met by the end of the decade. Moreover, even if the targets for these additional places were met, the total plan would only accommodate some 4.32 million persons, which is only about 18 per cent of the total expected growth (Sherer, 1981).

If we look at actual population counts, the data are even more revealing. According to the 1986 Census the total population in 10th of Ramadan, Sadat City, 6th of October, and Salheya was only 11,713 or about .73 per cent of the target. Past experience shows that in Egypt only urban centers, closely connected to Cairo and Alexandria, grow rapidly, so it is doubtful that in the remaining years till the end of the century these places will meet their targets.

A major factor inhibiting the growth of these areas has been their lack of a service and industrial base. This, in part, is due to their relatively small populations. Previous experience has shown that new places do not attract private industry and social services until they reach a size of about 50,000, a figure which is well beyond that of all the new towns (Sherer, 1981: 11 - 13). The last report of the New Communities Authority shows an inadequate social service infrastructure. Only 5.3 per cent of total investment

allocated for new cities up to October 1989 was set aside for health, education and basic social services. Moreover, from Table 8 we can see that only a small share of land in each of the new towns has been allocated for service, trade, and tourism development. Population and industries will never be attracted in the absence of infrastructure, communication, and transportation services.

Above we noted that growth of new towns in Egypt has historically been influenced by their proximity to Cairo and Alexandria. Many of the new towns in Egypt are located too far from the central city to attract major industrial activity. A distance of 40 kilometers has been used as an international rule of thumb for locating new cities from established urban centers, but in the case of Sadat City, 10th of Ramadan, and New Ameriya, each is well beyond this limit. Some satellite cities such as the 15th of May, 6th of October and El Obour are located along existing development corridors, but in many cases the high cost of housing in the new communities puts it beyond the reach of the target populations (Ministry for Reconstruction, 1989). Frequently, apartments which are sold to real estate speculators in Cairo and Alexandria stand vacant. Similarly, although employment in the new towns actually exceeds population (see Table 9), it is difficult to know how many jobs are being occupied by residents of the areas or commuters from other areas. Given the high cost of housing and the types of jobs which are available, it is likely that many people employed in these areas do not live there.

Finally, the cost of constructing new towns is high and the recovery of those costs slow compared to other forms of urban and rural development. For example, the per capita cost in the first phase of the 10th of Ramadan (LE 3,842) was about four and one-half times higher than that associated with the Helwan development project (LE 848). In reality, the per capita costs are really higher since they are calculated on the basis of the target population. Thus, while actual population lags behind the estimated target, real costs per capita exceed the estimated costs by a considerably greater margin.

The relatively high costs of new towns reflect the fact that their development is capital intensive. The 1978 - 1982 five-year plan allocated 3.6 per cent of total investment for the construction of new towns. This percentage jumps to 56 if compared to investment allocated for housing at the national level, and to nearly 24 per cent of investment for services at the national level. These percentages are even bigger if compared to the current five-year plan, and if considered in light of what population size the new towns have actually reached. Indeed, they are extremely high given the broader economic situation of the country during the 1980's.

Only one of the new towns, the 6th of October, was initiated on a self-financing basis. Even in this case, however, the value of subsidies allocated for residential land and 75 per cent of the industrial land made up only about two thirds of the annual budget for the city. In the case of the 10th of Ramadan, per capita expenditures for infrastructure and community facilities were estimated at LE 910 and LE 1,713, respectively (National Council for Services, 1984). The return from land sales, on the other hand, has been estimated at only LE 35 per capita, which is only about 4 per cent of infrastructure costs and 1.3 per cent of community facilities costs. Data in Table 8 show that the value of land sold through the first half of 1989 contributed only .5 per cent of the total infrastructure cost. Even with the adoption of a new land disposal

policy, subsidies continued at about two thirds their previous level.

In short, the urban oriented population distribution policies, as reflected in the new communities and settlements programme appears to be an inefficient approach to achieving deconcentration. Even with the adoption of corrective measures such as incremental development, raising population densities, introducing better cost recovery methods, reducing infrastructure and community facilities costs, and providing public housing, it would be difficult to reduce costs significantly (Sherer, 1981: 28 - 30).

Rural Oriented Spatial Distribution Policies: A community based socio-economic programme was contained in the National Strategy Framework for Population, Human Resource Development and the National Family Planning Program (Sayed, 1984: 17). This programme is generally intended to reduce population growth and improve population characteristics (health, education, female employment, etc.) indicative of a higher quality of life. Although it is too early to evaluate the success of the program, it is important to note that it is comprehensive, covering 73 per cent of all villages in Egypt and some 70 per cent of the total rural population.

A second rural oriented policy more conducive to evaluation is the Local Development Fund which is part of the Organization for Reconstruction and Development of the Egyptian Village. As authorized in 1975 under Law 52, this fund provides financial aid to village councils for income generating projects and local services (Ghanim, 1982: 183). The data in Table 10 show that Lower and Upper Egypt received differing proportions of investment credits, 50.6 and 45.9 per cent of all credits, respectively. This apparent imbalance must be weighed, however, against the distribution of rural population between the two areas, 57.6 and 45.9, respectively. Thus, even though Lower Egypt received more investment credits than Upper Egypt, it had a larger proportion of the country's total rural population and did not receive credits equal to what one would expect, given the distribution of the rural population. If we look at the distribution of credits to rural population among Governorates (see Table 10), it is also apparent that some Governorates received credits in excess of their population, while others received considerably less than what we would have expected, given their relative share of the rural population.

Although these data show rather clearly that investment credits are not being allocated in proportion to the rural population, it is important to note that there may be a number of good reasons for this. For example, some villages may simply be in a better position to make use of such funds for their limited purposes than other villages, or it may be that some villages are better prepared bureaucratically to receive and make use of such funds. In short, there may be a number of factors other than need which, in fact, determine where and how investment credits get distributed.

Regional Oriented Policies: Law 43 of 1979 contains many of the provisions which set the stage for involving local governments in planning in Egypt (Arab Republic of Egypt, 1983). A number of these provisions involved administrative decentralization and urban dispersal. The law broadened the responsibilities of local governments, and gave governorates authority over public utilities, and the prerogative to establish local

productive projects and industrial areas. The law also formalized the role and structure of regional planning for the country's eight economic regions earlier established in 1977. As comprehensive in nature as what this law appears, it is not clear in reality that it accomplished its objective of bringing local governments directly into the planning process (USAID, 1980).

For instance, although new planning responsibilities were delegated to local governments, local governments were not given the authority to implement their decisions in a timely manner. That is, local governments do not enjoy full autonomy in the decision-making process; all decisions have to be reported to and reviewed by the Prime Minister's Office. Similarly, local governments act under rather severe financial constraints. As Table 10 shows, local government investment has not exceeded 11.4 per cent of total central government investment in the 1989/1990 period. Since the law contained no substantial alternative to previous tax-sharing arrangements, local governments must continue to rely on government banks to finance their projects.

Moreover, regional planning efforts in the various governorates is made difficult by the fact that few regional planning units are adequately staffed. Adding to this problem is the centralization of hiring authority. Local governments are staffed through the Central Manpower Commission which has total control over all hiring, firing, promotion, and pay scale decisions. Under these conditions it is quite easy for staff to develop loyalties to the central authorities rather than to the local governments and people who they serve.

Finally, deficiencies in the regional planning machinery inhibit decentralization and urban dispersal. Regional development plans are prepared by regional planning organizations and reviewed by Higher Committees before they are submitted to the Ministry of Planning. This makes all regional planning units merely advisory bodies including the Regional Planning Division of the Ministry of Planning. As a matter of fact, the national plan is formulated in Cairo by the central authorities in an ad hoc manner, and the necessary feedback between the national plan and the local plans does not materialize. Regional planning follows a geographic allocation of investment rule whereby Cairo, Alexandria, and the Canal Region receive the largest investment share, leaving the rest of the regions in short supply of the remaining funds. Thus, neither rural oriented nor regional policies have been effective in achieving inter-regional population concentration.

Population Distribution Policy Instruments: Direct investment in industry, services, and residential infrastructure are the major policy instruments used in the Egyptian National Urban Policy. The implementation of investments at this scale requires a set of legal and administrative procedures which direct, regulate, and coordinate investment activities at and between different levels of authority and across different units of government. Once such laws have been enacted, it is important that enforcement agencies be empowered with the staff and mechanism to achieve compliance and that the laws themselves be informally enforced.

In the Egyptian context, enforcement mechanisms have been weak and a number of laws intended to direct urban growth have not been uniformally applied. For instance, despite the strictly mandated laws and regulations intended to prevent the encroachment of urban growth into agricultural land, this has occurred on a rather routine basis. This results, in part, from the fact that the Ministry of Agriculture was given responsibility for enforcing these regulations, but they were provided with no clear enforcement authority or the power to sanction violators with compensatory penalties. Similarly, the local government law contains provisions intended to regulate the locations of industrial zones in the new communities and some free zones. In reality, however, loop holes in these regulations have permitted industrial establishments to locate in many other places (Ministry of Development, 1981: 85 - 90).

Another policy instrument intended to induce and direct growth has been the tax incentive. Established under Law 59 in 1979 these incentives are quite weak. Other than stipulating that they are for projects constructed in new communities they were never targeted to specific urban areas, and they were not based on a population spatial distribution strategy. Previous experience has suggested that tax incentives for industrial projects need to be directed at specific areas, and that they are most effective when accompanied by disincentives to locate in other areas (Sherer, 1981: 31).

Finally, for policy instruments of the types being used in Egypt, effective coordination and communication between the various levels of government and the authorizing units at different levels is essential. The absence of a structural network to facilitate this type of coordination and communication is inhibiting the effectiveness of policy instruments. Examples of where communication and coordination gaps have interfered with the effective use of policy instruments are many. One involves the Governorate of Alexandria (an independent local authority) and New Ameriya City (which is under the New Community Authority). In this case the Governorate of Alexandria has been given authority to approve new industrial and residential establishments along the main road connecting the two places. In a similar situation the 15th of May City (also under the New Community Authority) was initiated in stages. As soon as its first stage was completed, this was transferred to the Cairo Governorate, but the remaining stages of construction remain under the authority of the New Community Authority making implementation of the total project difficult to coordinate (Sherer, 1981: 31 - 32 and Al Ahram, 1989).

Thus, even though rather clear cut policy instruments have been identified in Egypt, their effectiveness is impeded by problems of administration, coordination, and communication. In a number of instances these problems have been compounded by additional problems of duplication of authority.

THE COUNTERACTING EFFECTS OF IMPLICIT POPULATION DISTRIBUTION POLICIES

While the main objectives of explicit population distribution policies are the deconcentration of population and urban dispersal, and although the Government has made considerable effort to facilitate meeting these objectives, a number of policies more

broadly related to socio-economic development implicitly have the effect of negating and even reversing the impacts of these explicit policies. That is, a number of the Government's policies designed to contribute to the socio-economic development of the country have the indirect effect of promoting more rapid urban than rural growth, and thus, contribute to the failure of explicit population distribution policy instruments. Below we describe some of these implicit policies and how they influence population distribution.

Agricultural Policies: In Egypt agricultural policies contribute to urbanization by reinforcing the urban/rural income gap thereby enhancing the attractiveness of urban areas and the push from rural areas. The agricultural sector operates under a number of constraints (the lack of water and reliance on irrigation, limited land, government controlled prices, procurement storage, transport, and local marketing) which increase expense and depress income (El Miniawy, and El Din, 1989: 93). Examining the impact of fixed pricing policy and procurement systems for the four major export crops, K. Korayem concluded that the implicit tax rates on crops which are subject to compulsory delivery are higher than the tax rates of non-agricultural income (Abdel Khalek and Tignor, 1982: 14). Per capita income for agricultural workers was only 37 per cent of urban per capita income in 1975, and declined to just 27 per cent in 1982. This gap is further compounded by the fact that the general price index in rural areas exceeded the index in urban areas by nearly 16 per cent over the period from 1975 - 1986.

Employment and Education Policies: Guaranteed employment and education policy both contain an implicit urban bias. There is strong political pressure to provide the urban middle class with secondary and higher educational opportunities, and this has largely led to the expansion of the education system in urban areas with no counterbalanced expansion of the primary education system in rural areas (Central Agency for Public Mobilization and Statistics, 1988). With most secondary and university education facilities located in urban areas, the educational opportunities for children living in rural areas are much less than those of children living in urban areas. This, in turn, means that urban children are being better prepared for the modern economic sector located in cities and concentrated in Cairo.

In 1961 the government began a guaranteed employment programme. With this programme government employment grew from 1.96 million in 1960 to 4.28 million in 1984. Much of this growth was concentrated in the city of Cairo which contained over 41 per cent of all government jobs at the end of this period. Quite clearly the growth of educational opportunities in urban areas and the concentration of employment growth contribute to the growth of urban areas generally and the primate city in particular.

Industrial Policies: Programmes intended to help industrialize the Egyptian economy also contain an urban bias which tends to concentrate wealth and development in existing urban centers, and indirectly holds back the process of the spatial deconcentration of population. Over the past two decades, for example, the government has adopted a number of policies aimed at developing import substitution industries. The industries affected require a large and diverse labour force which can only be found in the larger cities such as Cairo and Alexandria which alone contain nearly 21 per cent of the country's total labour force. Not only have these programmes led to a greater

concentration of industrial and related activity in urban areas, but the import substitution policies have also led to an increased exchange rate reducing the value of agricultural exports (Kheir El Din, 1989: 41).

Foreign Aid, Multinational Corporations and the Location of Industrial Establishments: The primate cities of Cairo and Alexandria have received a disproportionate share of the country's foreign aid, and they are clearly the locations of preference for multinational corporations (Abdel Khalek, 1982: 453). This has created a capital intensive bias in these places over others in the country and further adds to their attractiveness for gaining new internal migrants and the economies of location make every new multinational prefer them as well. The existence of the multinational corporations contributes to the sectoral and intersectoral wage discrimination, and this further attracts rural to urban migrants (Nassar, 1986: 10 - 11). For example, Data in Table 11 show the distribution of industrial establishments by the size of their employment for the governorates of the country. These data show quite clearly the dominant employment role of Cairo and Alexandria which together contain 45.1 per cent, 56.9 per cent, and 48.6 per cent of all small, medium, and large establishments respectively in the country. In many respects Cairo increasingly appears to be part of an international network, and with each incremental change in this direction it seems to be further removed from the national urban system (Gordon, N.d.: 11).

Housing and Health Policies: The housing programme in Egypt is not markedly different from the housing programmes which can be found in most developing countries. In most such countries public housing is concentrated in urban areas. The data in Table 12 confirm that this is also the case in Egypt, but perhaps equally important these data also show that the largest concentration of public housing is in the single primate city of Cairo. With less than 13 per cent of the country's total population, Cairo has over 41 per cent of all the public housing stock in the country. The housing gap between Cairo and the rest of the country is further amplified by the private housing stock. The existence of multinational corporations, international agencies and organizations, and the concentration of higher wage rate industrial establishments in the Cairo area has created an even greater concentration of private than public housing in the Cairo Governorate. Nearly 53 per cent of all private houses are located in the Cairo area, and the Cairo and Alexandria governorates together account for some 76 per cent of all private housing in the country.

The right hand columns of Table 12 show information on the availability, use, and cost of health care in urban and rural governorates. What is interesting in this case, however, is that while Cairo clearly dominates in health care expenditures per capita,the availability of physicians and the use of health care facilities in Alexandria and a number of the governorates in Lower and Upper Egypt exceed the figures for Cairo and, in a number of cases, Alexandria as well. To some extent these figures reflect the differences in the health care needs of the various areas, but more importantly they probably also reflect the differences in the availability and use of public and private health care facilities.

Development Policies: Finally, Table 13 contains data showing the distribution of employment, investment, and output by economic sectors for various periods from 1959

through 1991. These data show the clear investment bias which has existed against the agricultural sector. During the earliest period examined here, investment in the agricultural sector was, at its peak, consuming some 22 per cent of all investment. This relatively high rate of investment reflects the construction of the High Dam in Aswan. Following this period investments in agriculture declined consistently, reaching a low of only 7.3 per cent of all investments during the period 1974 - 1980/1981 after which it increased again, but over the remaining periods it averaged only about ten per cent or less than half of what it was during the earliest period.

Over the entire period, output in the agricultural sector fluctuated within a relatively narrow range, but rather interestingly was about equal at the beginning and end of the period. Employment, on the other hand, showed a steady decrease from some 52 per cent of all employment to only about one-third of all employment. A major factor underlying these trends has been a shift toward capital intensive farming, a basic characteristic of the "Development from Above" pattern. The subsidized mechanization of agriculture began to increase sharply during the last half of the 1970's, when loans for agricultural equipment and machines increased from 2.1 per cent of all agricultural loans in 1977 to 8.3 per cent in 1980. Similarly, the "Development from Above" pattern also characterized the industrial sector as depicted in its increasing level of capital intensity. The average share of the industrial worker in fixed assets increased from LE 100 in 1970 in the public and private sectors to LE 225 and LE 518 in 1981 and 1982, respectively.

Regional Policies: In addition to the urban and high capital intensity biases revealed in the Egyptian development plans there, Table 14 is also a clear cut pattern of regional disparities. These are revealed in Table 13 where we can see the differences in investment allocations among governorates. The disparities in the distribution of investment allocation in the five year plan for 1987 - 1988/1991 - 1992 show no tendency towards eliminating the regional gaps between urban areas and Lower and Upper Egypt. In general, the plans distributions will bring about a growth pole rather than a polarization reversal strategy. Under the plan, Cairo will absorb the majority of investment allotted to industrial, electricity, construction, transportation, trading, housing, public facilities, and services. In total, about one-fifth of the investment in this plan will be absorbed in the Cairo Governorate.

If examined in per capita terms investment allocations also show a marked disparity. Per capita investment in the Cairo Governorate amounts to LE 157.3 while that for the entire Cairo Planning Region LE 88. Both of these figures compare unfavorably with per capita investment plans for Lower and Upper Egypt which were only about LE 51 and LE 37, respectively. Thus, while the narrowing of inter-regional differences is a basic feature of the polarization reversal strategy, the data presented above does not suggest that this strategy is being operationalized in Egypt; indeed, it appears that investment will follow population growth toward the heavily urbanized areas. This is further suggested by the fact that a substantial amount of investment is being allocated to projects already under completion in existing areas. For example, more than 21 and 30 per cent, respectively, of investment funds in the last five year plan were given over to "depreciation and "replacement," and "completion" of existing projects.

In short, the intended explicit spatial distribution policy of polarization reversal

and inter-regional deconcentration have been largely ineffective because of the development strategy adopted. Short term efficiency considerations have required the concentration of investment in existing populated areas, and this has, in turn, required setting aside the longer term objective of deconcentrating investment.

CONCLUSIONS AND RECOMMENDATIONS

Egypt has many of the same problems of population distribution as other countries at a similar stage of development: increasing urbanization, an unequal geographic distribution of urban areas, and a heavy concentration of population in primate cities. Government policies have sought to achieve population deconcentration through polarization reversal, and intra- and inter- regional population deconcentration strategies. Yet the goal of population deconcentration remains largely unrealized because of the ineffectiveness of policy instruments, the failure of implicit policy to compliment spatial distribution policy, and the counterbalancing effects of short term development policy.

Explicit spatial distribution policies in Egypt have been remedial, and largely intended to counterbalance some of the negative characteristics of population concentration in specific areas, most notably Cairo and Alexandria. They have tended to concentrate on the demographic aspects of population distribution ignoring the socio-economic dimensions. The focus on new cities and settlement projects has consumed a disproportionate share of investment capital and is more oriented to longer term solutions leaving shorter term issues unaddressed and little investment capital for rural development. When laws intended to regulate factors influencing spatial distribution of population have been passed, problems of enforcement and coordination have frequently impeded their efficient administration. Finally, development and socio-economic policies have tended to favor the Cairo metropolitan area and urban areas more generally following and reinforcing existing patterns of population distribution. If these policies continue, the desired targets of redistributing population in Egypt will be constantly undermined.

Population spatial distribution policy should seek a rural/ urban equilibrium in demographic as well as socio-economic terms. The development from above strategy adopted in Egypt has not successfully taken the country in these directions: neither population deconcentration nor the elimination of regional disparities appears to loom on the horizon. Accordingly, different development strategies and policies should be entertained. In the case of Egypt it would appear that one viable alternative strategy would be to broaden the concept of regional development to include not only the distribution of investment, but also the adoption of a wide range of selective policy measures designed to enhance living standards in remote regions along with a system of disincentives centered around specific target areas. That is, regional development should be a basic component of socio-economic planning, and should seek to reduce push factors in rural areas and certain remote governorates, reduce the pull factors of more congested areas, and clearly view new cities and settlements as a long term component of regional development.

To achieve a balanced regional development strategy it will be necessary to integrate urban and rural oriented policies. That is, rural development programmes must

be developed taking account of their potential consequences for urban areas, and urban development programmes must be developed taking account of their potential consequences for rural areas. For example, agricultural pricing and tax incentives might be reconsidered along with the expansion of off-farm employment opportunities and improved social services as a means to "urbanizing" rural regions. In addition to reducing the influence of push factors in rural areas and pull factors in urban areas, this approach could stimulate the development of lower order urban centers which would reinforce rural socio-economic development by providing centers for the provision of social services, periodic markets, agricultural and support facilities, and transport terminals for importing and exporting goods.

Thus, we are suggesting that the promotion of secondary and medium sized towns might be an important link integrating urban and rural areas, and for reducing the existing gaps between rural and urban areas by bringing about enhanced rural development and reducing urban problems. The promotion of secondary cities which serve as transfer and dissemination centers for goods and services between urban centers and the countryside is a policy well suited for Egypt as suggested by those places such as Tanta, Damanhour, and Benha which have developed in the area between Cairo and Alexandria. A more balanced distribution of the urban population and of socio-economic activities could be brought about by applying the economies of secondary cities to Lower and Upper Egypt through the promotion of industrial and commercial development.

This type of "Development from Below" strategy is radically different from the "Development from Above" strategy pursued by the Government of Egypt in the past. The strategy is especially useful in areas where there are relatively large populations which provide the potential for internal markets and labor intensive industries. Such a strategy demands that there be some variation in approach from one region to another to insure that each region's natural and human resources are used to their maximum potential. The basic idea is that development in the different regions should be based on a full mobilization of the natural, human, and institutional resources of each. This, in turn will be facilitated by sequential rather than sectoral planning. Similarly, the "Development from Below" approach, and its foundation in regional planning must be integrated with the national socio-economic plan to avoid the unintended spatial effects of implicit policies. This will also help to insure socio-economic policies which favor the lower ranks of the urban hierarchy.

Urban policies should be oriented toward the redevelopment of congested areas. Reorganization, improved management and coordination are prerequisites for the efficient growth of Cairo and Alexandria. While decentralizing planning and administrative responsibilities for these cities will lead to more efficiency in these areas, it will be important for each of these areas to be integrated into plans which will also include their less populated hinterlands. Taking account of environmental considerations will also be increasingly important in each of these more congested areas.

Finally, the development of new towns and settlements is an important mechanism for dispersing population from the Delta and Valley towards the desert. However, due to its relatively high cost and slow pace, it constitutes a long term approach rather than an immediate solution.

TABLE (1)

RURAL/URBAN POPULATION IN EGYPT IN THE 20TH CENTURY

1907	1927	1937	1947	1960	1966	1976	1986
Total Population 11189978 Urban Population 1930137 Rural Population 9259481	14177864 3810428 10367436	15920694 4491693 11429001	18966761 6363257 12603510	2598411 9863703 16120398	29724099 12032743 17691356	36636204 16036403 20589801	48205049 21173436 27031613
Urban/Total % 17.2 Rural/Total % 82.8 Urban/Rural (R/U) Ratio 0.208	26.8 73.1 0.36	28.2 71.8 0.393	33.5 66.5 0.505	37.9 62 0.612	40.5 59.5 0.68	43.8 56.2 0.789	43.9 56.1 0.783
Average Growth Rates%							
Total Urban Rural	2.7 9.1 1.2	1.2 1.7 1.02	1.8 3.6 1.03	2.4 3.5 1.91	2.4 3.4 1.7	2.12 3.1 1.4	3.2 3.2 3.1
Pace of Urbanization							
Conventional Index 1) 55.8 Eldridge Index 2) 10.6	5.2 1.4	18.8 5.6	13.1 4.6	6.9 2.7	8.15 3.4	0.228 0.17	

Source: Calculated from Central Agency for Public Mobilization and Statistics. Preliminary Results of Census, 1986. May 1987.

1) Conventional Index: $\frac{P_1 - P_o}{P_o} \times 100$

2) Eldridge Index: $\frac{P_1 - P_o}{100 - P_o} \times 100$

TABLE (2)

PERCENTAGE DISTRIBUTION OF TOTAL AND URBAN POPULATION BY GOVERNORATE URBAN GOVERNORATES, LOWER + UPPER EGYPT 1947-1986

GOVERNORATES	1947				1960				1966			
	% OF URBAN POP. TO TOTAL URBAN POP.	RANK	% OF URBAN POP. TO TOTAL POP.	RANK	% OF URBAN POP. TO TOTAL URBAN POP.	RANK	% OF URBAN POP. TO TOTAL POP.	RANK	% OF URBAN POP. TO TOTAL URBAN POP.	RANK	% OF URBAN POP. TO TOTAL POP.	RANK
URBAN GOVERNORATE												
Cairo	33.4	1	10.9	1	34	1	12.85	1	35	1	14	1
Alexandria	14.9	2	5.0	10	15.4	2	5.81	8	14.9	2	6	6
Port Said	2.6	11	0.9	17	2.4	11	0.94	21	2.3	9	0.9	19
Suez	5.7	3	0.6	19	2.0	12	0.79	22	2.3	9	0.9	19
TOTAL URBAN GOVERNORATES	56.6		17.4		53.8		20.39		54.5		21.8	
LOWER EGYPT												
Damietta	1.1	18	1.4	16	0.7	17	1.46	18	0.9	15	1.4	17
Dakahlia	3.9	4	7.7	2	3.7	5	7.75	2	3.9	5	7.6	2
Sharkia	2.7	10	7.1	3	3.0	7	7.00	3	3.2	6	7.0	3
Kalyoubia	1.8	14	3.8	12	2.5	10	3.89	13	3.2	6	4.0	12
Kafer El Sheikh	1.6	10	3.6	13	1.7	15	3.73	14	1.8	11	3.7	13
Gharbia	3.3	6	6.8	4	4.9	3	6.42	5	5.0	4	6.3	5
Menoufia	2.2	12	5.9	7	1.8	14	5.21	9	2.0	10	4.8	10
Beheira	2.9	8	6.4	6	3.1	6	6.46	4	2.9	7	6.6	4
Ismailia	1.1	18	0.9	17	2.9	8	1.09	21	1.5	34	1.1	18
TOTAL LOWER EGYPT	20.6		43.6		24.3		43.01		24.4		42.5	
UPPER EGYPT												
Giza	2.9	8	4.5	11	4.4	4	5.1	11	5.4	3	5.0	8
Beniseouf	1.7	15	3.8	12	1.6	16	3.3	15	1.7	12	3.0	15
Fayoum	1.6	16	3.5	14	1.6	16	3.22	16	1.7	12	3.1	14
Menya	2.9	8	6.7	5	2.7	9	5.98	7	2.8	8	5.7	7
Asyut	2.8	9	5.5	9	2.9	8	5.04	12	2.8	8	4.7	11
Sohag	3.1	7	6.8	4	2.9	8	6.08	6	2.8	8	7.3	2
Qena	2.1	13	5.8	7	1.9	13	5.18	10	2.3	9	5.0	9
Aswan	1.2	17	1.5	15	1.6	16	1.48	17	1.6	13	1.2	16
TOTAL UPPER EGYPT	18.3		38.1		19.6		35.38		19.5		35.6	

1976				1986				% OF URBAN POP. TO TOTAL POP. IN THE GOVERNORATE
% OF URBAN POP. TO TOTAL URBAN POP.	RANK	% OF POP. TO TOTAL NATIONAL POP.	RANK	% OF URBAN POP. TO TOTAL URBAN POP.	RANK	% OF URBAN POP. TO TOTAL POP.	RANK	
31.6	1	13.85	1	28.6	1	12.56	1	100
14.4	2	6.32	6	13.7	2	6.05	5	100
1.6	16	0.72	19	1.8	14	0.83	19	100
1.2	18	0.53	20	1.5	16	0.68	20	100
48.8		21.42		45.6		20.12		100
0.9	20	1.57	17	0.8	18	1.54	18	25.2
4.1	7	7.47	2	4.3	6	7.26	3	26.0
3.3	8	7.19	3	3.4	8	7.1	4	29.8
4.2	5	4.59	12	5.2	4	5.2	8	41.2
1.8	14	3.84	13	1.9	11	3.71	33	22.8
4.8	4	6.26	7	4.4	5	5.90	6	32.7
2.1	13	4.67	10	2.3	12	4.62	11	20.1
4.2	6	6.73	4	3.6	7	6.76	4	28.5
1.0	19	0.97	18	1.3	17	1.11	19	48.8
26.4		43.3		27		43.32		28.4
8.6	3	6.6	5	10.0	3	7.68	2	57
1.7	15	3.03	15	1.7	15	2.99	15	25.1
1.7	5	3.12	14	1.7	15	3.2	14	23.2
2.7	10	5.61	8	1.7	9	5.49	7	20.7
2.9	9	4.63	11	2.6	9	4.61	12	27.8
2.5	11	5.25	9	2.5	10	5.09	9	21.8
2.4	12	4.67	10	2.4	11	4.67	16	23.2
1.5	17	1.69	16	1.5	16	1.66	17	39.9
24		34.9		24.1		35.39		29.8
0.8		0.72	18	1.5		1.17	19	57.5
100		100		100		100		53.9

Frontier Governorates	3.8	5	0.8	18	2.37	16	1.19	20	1.6		0.8	
TOTAL	100		100		100		100		100		100	

Source: Compiled and calculated from Central Agency for Public Mobilization and Statistics. Preliminary Results of 1986 Census, Governorates. 1988; and from the National Urban Policy Study.
We concentrated on the Period after 1947 due to a remarkable Increase in the Urban Settlements in Census 1947.

TABLE (3)

BASIC DEMOGRAPHIC AND GEOGRAPHIC DISTRIBUTION BY CENSUS YEAR

Items	1947	1960 (1)	1966 (1)	1976	1986 (2)
Total Population (000) Major Cities in Urban Governorate (Capitals) Percent of Population in Major Cities	18967 6 18.0	26085 21.5	30076 5 21.8	38198 4 21.4	43205 4 20.1
Number of Towns in Lower Egypt (Towns & Capitals of Governorates) Index Number	51 100	61 119,6	68 133,3	79 154,9	90 176,5
Number of Towns in Upper Egypt (Towns & Capitals of Governorates) Index Number	44 100	56 127,3	56 127,3	63 143,2	70 159
Percentage of Urban Population in Lower and Upper Egypt	12.1	15.1	18	22	23.1
Number of Villages in Lower Egypt Number of Villages in Upper Egypt	2248 1709	2361 1682	2369 1664	2400 1666	2423 1663
Number of Towns in Frontier Governorates Percentage of Urban Population in Frontier Governorates	25 0.9	25 1.1	26 1.2	23 0.7	31 1.2

Source: Calculated from the Central Agency for Public Mobilization and Statistics. Statistical Yearbook, 1952-1982, ARE.

(1) Including population in frontier governorates

(2) Including Egyptians living abroad.

TABLE (4)

RANK SIZE OF URBAN SETTLEMENTS FOR CITIES OVER 50000 (1947-1986)

Cities	1947 Size	1947 Rank	1960 Size	1960 Rank	1966 Size	1966 Rank	1976 Size	1976 Rank	1986 Size (1)	1986 Rank	Rank (2)	Expected Population (2)	Difference (1) - (2) (3)	% 3/2
Cairo	2090654	1	3348779	1	4219853	1	5084463	1	6052836	1	1	3864430	2188406	56.6
Alexandria	919025	2	1516234	2	1801056	2	2318655	2	2917327	2	0.5	1932215	985112	51.0
Giza	66156	14	398650	3	571249	3	1232654	3	1870508	3	0.333	1288143	582365	45.2
Muhalla	115758	5	178288	7	225323	7	292853	5	358844	6	0.1666	644072	-285228	44.3
Tanta	139926	4	184299	6	229978	6	284636	6	224505	11	0.0909	351312	-126807	36.1
Port Said	177703	3	235318	4	282977	4	262620	7	399793	5	0.2	772886	-373093	48.3
Mamoura	101965	7	151192	8	191459	8	257866	8	316870	7	0.1428	552061	-235191	42.6
Assyut	90103	8	127485	9	153186	10	213983	9	273191	8	0.125	483054	-209863	43.4
Zagazig	81813	10	124417	11	151186	11	202637	10	245496	9	0.1111	429381	-183885	42.8
Suez	107244	6	203610	5	264098	5	190249	11	226820	10	0.1	386443	-159623	41.3
Damanhour	84352	9	126600	10	146079	12	188927	12	190840	16	0.0625	241527	-50687	21.0
Fayoum	73642	11	102046	13	133616	14	167081	13	212523	13	0.0769	297264	-84741	28.5
Minia	70298	12	94507	15	112580	16	146423	15	179136	17	0.0588	227319	-48183	21.2
Ismailia	68229	13	116302	12	144163	13	145978	16	212567	12	0.0833	322036	-109469	34.0
Beniseof	57106	15	78829	16	90420	17	118148	18	151813	18	0.0555	214691	-62878	29.3
Damietta	53631	16	71780	17	86328	18	93546	22	89498	28	0.0357	138015	-48517	35.2
Shebinelkom			54910	20	66290	22	102844	19	122751	21	0.0476	184020	-61269	33.3
Sohag			61944	18	74753	20	101758	20	133965	19	0.0526	203391	-69426	34.1
Qena			57417	19	68536	21	93787	21	119794	22	0.0454	175656	-55862	31.8
Mallawi			52614	22	59938	24	74256	26	99063	25	0.04	154577	-55514	35.9
Shubra El Kema			100607	14	172902	9	393700	4	710794	4	0.25	966107	-255313	26.4
Benha			52686	21	63849	23	88992	24	115571	23	0.0434	168019	-52448	31.2
Aswan					127594	15	144377	17	191461	15	0.0666	257629	-66168	25.7
Luxor					77578	19	92748	23	125404	20	0.05	193221	-67817	35.1
Kafr El Shakh					51544	21	77537	25	103910	24	0.0416	161018	-57100	35.5
Belbeis					58070	25	69290	28	96540	26	0.0384	148632	-52092	35.0

TABLE (4 - Cont'd.)

Cities	1947 Size	1947 Rank	1960 Size	1960 Rank	1966 Size	1966 Rank	1976 Size	1976 Rank	1986 Size (1)	1986 Rank	Rank (2)	Expected Population (2)	Difference (1) - (2) (3)	% 3/2
Kafer El Dawar							160554	14	195102	14	0.0714	276031	-80929	29.3
Mit Ghomr							72206	27	93253	27	0.0370	143127	-49874	34.8
Qalub							62739	29	86684	28	0.0357	138015	-51331	37.2
Idhu							62230	30	70779	33	0.0303	117104	-46325	39.6
Mataria							61153	31	74554	30	0.0333	128814	-54260	42.1
Dessouk							58650	32	78119	29	0.0344	133256	-55137	41.4
Menouf							55131	33	69883	35	0.0285	110412	-40529	36.7
Abu Kabir							54855	34	69509	36	0.0277	107345	-37836	35.2
Akhmin							53234	35	70602	34	0.0294	113660	-43058	37.9
Gerga							51110	36	67777	38	0.0263	101696	-33919	33.4
Zafta							50410	37	69050	37	0.0270	104444	-35394	33.9
Belkas							50057	38	73164	31	0.0322	124661	-51497	41.3
Rashid									53014	46	0.0217	84009	-30995	36.9
Hoshein									53619	45	0.0222	85876	-32257	37.6
Kafr Zayat									58061	40	0.025	96611	-38550	40.0
Eshmon									54450	44	0.0227	87828	-33378	38.0
Hawamdia									73060	32	0.0312	120763	-47703	39.5
Nasser									54482	43	0.0232	89870	-35388	39.4
Snoness									55333	41	0.0243	94254	-38921	41.3
Maghagha									50807	49	0.0204	78866	-28059	35.6
Manflout									52644	47	0.0212	82222	-29578	36.0
Arment									54650	42	0.0238	92010	-37360	40.6
Komombo									52121	48	0.0208	80509	-28388	35.2
El Arish									67638	39	0.0256	99088	-31450	31.7
Total									17440172		4.513	17447588	7519173	43.1 %

Source: Computed and compiled from different censuses data, and the National Urban Policy Study.

TABLE (5)

POPULATION CONCENTRATION COEFFICIENT TO DENSITY UNIT IN 1986 (BY GOVERNORATE LEVEL)

Governorate	Pop. Size in 1986	% to Total Population (1)	Inhabited Area Km^2	% to Total Surface Area (2)	Population Concentration (1-2)	Density		
						Building/Km^2	Population/ Km^2	Housing Units/Km^2
Urban Governorate								
Cairo	6052836	12.56	214.2	0.61	11.95	1909	28258	8095
Alexandria	2917327	6.05	2679.36	0.89	5.16	1208	1181	4135
Portsaid	399793	0.83	72.01	0.2	0.63	1979	5545	4555
Suez	326820	0.68	17840.42	0.87	-0.19	459	18	1156
Lower Egypt								
Damietta	741264	1.54	589.2	1.67	-0.13	1527	1258	3146
Dakahlia	3500470	7.26	3471	9.87	-2.61	2247	1008	4904
Sharkia	3420119	7.1	4179.55	11.8	-4.7	1687	818	3138
Kalyobia	2514244	5.22	1001.1	2.84	2.38	1211	2511	3285
Kafr El-Sheik	1800129	3.73	3437.1	9.77	-6.04	1367	524	2373
Gharbia	2870960	5.96	1942.2	5.53	0.43	1687	1478	3670
Menoufia	2227087	4.62	1532.1	4.35	0.27	1505	1454	2289
Behera	3257168	6.76	10129.49	13.04	-6.28	1824	322	3407
Ismailia	544427	1.13	1441.6	4.1	-2.97	2717	378	4829
Upper Egypt								
Giza	3700054	7.68	1058.2	3.01	4.67	1708	3497	5742
Beni Suef	1442981	2.99	1321.7	3.76	-0.77	1531	1092	2354
Fayaum	1544047	3.2	1827.2	5.19	-1.99	2544	845	3907
Menya	2648043	5.49	2261.7	6.43	-0.94	2121	1171	3654
Assyuit	2223034	4.61	1553	4.41	0.2	1611	1431	2879
Souhag	2455134	5.09	1547.2	4.4	0.69	2892	1587	4841
Qena	2252315	4.67	1850.7	5.26	-0.89	2071	1217	2525
Asswan	801408	1.66	678.2	1.93	-0.27	2001	1812	2006
Frontier Governorates	565389	1.17	853016					
TOTAL	48205049	100	997738.4			1800.3	2733.6	3661.5

Source: Compiled and computed from Central Agency for Public Mobilization and Statistics. Preliminary Results of 1986 Census. 1987.
Central Agency for Public Mobilization and Statistics. Statistical Yearbook, 1952-1987, ARE. June 1988.

TABLE (6)

PHYSICAL QUALITY OF LIFE INDEX 1986 (TOTAL, URBAN, RURAL)

Governorate		Infant Mortality %	Infant Mortality Score	Illiteracy Rates %	Illiteracy Rates Score	House with Purified Water %	House with Purified Water Score	Poli 76	Poli 86	Rank 76	Rank 86
Urban Governorate											
Cairo		74	43	31	100	95	76	65	72	4	3
Alexandria		61	55.2	33	88.5	99	95	77	77	3	2
Portsaid		49	66.6	32	94	100	100	95	69	1	6
Suez		14	100	34	81	99	95	78	93	2	1
Average			264.8		363.5		366	78.8	77.8		
Lower Egypt											
Damietta	T	59	52.	44	56	96	94	57	67	5	5
	U	39	76.2	36	69	99	95		80		3
	R	67	57	47	55	95	100		71		2
Dakahlia	T	50	61	49	44	81	71	4.5	59	7	7
	U	47	68.6	36	69	98	90		76		5
	R	51	84	53.5	41	75	73		66		3
Sharkia	T	65	45	51	39	68	51	36	45	12	10
	U	57	59	35	75	95	76		70		9
	R	67	57	56	36	59	51		48		7
Kalyoubia	T	84	25	46	51	62.5	42	28	39	13	15
	U	91	26.7	38	56	89	48		43.5		12
	R	80	34	52	79	40	25		46		9
Kafr El-Sheik	T	45	67	60	17	86	78	38	54	10	8
	U	53	62.8	45	12.5	97	86		54		10
	R	42	100	65	17	82	82		66		4
Gharbia	T	72	38	47	49	77	65	38	51	9	9
	U	67	49.5	33	88.5	95	76		71		8
	R	75	43	55	38	66	60		47		8
Menoufia	T	89	19	48	46	63	43	23	36	15	16
	U	73	43.8	37	62.5	84	24		43		13
	R	92	14	51	47	57.5	49		37		11
Behera	T	64	46	57	24	71	55	30	42	11	13
	U	90	24	41	37.5	91	57		39.5		16
	R	57	74	62	23	64	57.5		51.5		6
Ismailia	T	52	59	26	100	71	55	51	71	6	4
	U	52	63.8	32	94	92	62		73		7
	R	52	83	26	100	48	36		73		1
Average: Lower Egypt	T		45.8		47.3		61.5	38.4	47.9		
	U		52.7		62.7		68.2		68.4		
	R		60.7		48.4		59.3		49.5		

TABLE (6 - Cont'd.)

PHYSICAL QUALITY OF LIFE INDEX 1986 (TOTAL, URBAN, RURAL)

Governorate		Infant Mortality %	Score	Illiteracy Rates %	Score	House with Purified Water %	Score	Poli 76	86	Rank 76	86
Upper Egypt											
Giza	T	82	27	44	56	69	52	40	45	8	11
	U	85	32.4	34	81	81	10		41		15
	R	79	36	59	30	50	38		35		12
Beni Suef	T	81	28	63	10	68	51	18	30	19	17
	U	90	27.6	45	12.5	87	38		26		19
	R	78	38	70	6	62	55		33		13
Fayoum	T	77	32	67	1	89	83	15	39	20	14
	U	84	33.3	47	1	99	95		43		14
	R	74	45	73	1	86	88		45		16
Menya	T	74	35	65	5	47	34	15	25	21	18
	U	85	32.4	39	50	86	33		38		17
	R	71	50	72	2	36	19		24		16
Assyuit	T	84	25	62	12	56	32	22	23	16	19
	U	89	28.6	39	50	83	19		32.5		18
	R	82	31	70	6	45	31.5		23		17
Souhag	T	67	43	65	5	42	11	21	20	17	20
	U	89	28.6	45	12.5	82	14		18		20
	R	61	67	71	4	29	9.5		27		14
Qena	T	72	35	63	10	35	1	27	16	14	21
	U	105	13.3	44	19	79	1		11		21
	R	62	65.5	69	8.5	22	1		25		15
Aswan	T	107	1	46	51	85	77	21	43	13	12
	U	119	1	37	62.5	94	71		45		11
	R	100	1	52	79	78	77		52		5
Average: Upper Egypt	T		28.3		18.8		42.6		30.1		
	U		24.7		35.7		35.1		31.8		
	R		41.9		17.1		39.9		33		

Source: Calculated from: (1) Central Agency for Public Mobilization and Statistics. Preliminary Results of 1986 Census. 1987.

(2) Central Agency for Public Mobilization and Statistics. Birth and Death Data. Cairo, 1988.

PHYSICAL QUALITY OF LIFE INDEX

An index composed from several indicators (infant mortality, illiteracy rates, houses with electricity or having access to purified water) that shows the quality of life in the different regions or for the different socio-economic classes. The index which ranks the different regions or the different socio-economic classes from 1 to 100.100 indicates the highest physical quality of life among the different regions or the various socio-economic classes.

TABLE (7)

POPULATION SPATIAL DISTRIBUTION POLICY

Settlement	
CAIRO	Absorption of excess population in cities, such as 10th of Ramadan, and encouraging the growth of close by satellites, such as the 6th. of October, 15th. of May, and El-Obuor cities. Planning of the homogenous sectors in order to increase development of fringe sites on desert land. Development of new corridors towards the East outside the Greater Cairo Planning Region.
ALEXANDRIA	Encouraging growth towards the North West along the coast; the control of southern and south-west growth; construction of New Ameriya city; reclamation of desert land; and the expansion of port - related industries.
DELTA	Encouragement of migration to new cities; relocating industries in other urban regions and new towns, as well as the Suez alternative.
CANAL	Expansion of inter-regional infrastructural networks, particularly water and power. Development of the Suez city; complementary development of service industries; diversification of industrial base; increasing population density in Sinai and the promotion of tourism.
NORTHERN UPPER EGYPT	Construction of new towns in Beni-Souef and Menya.
ASSYUT AND THE NEW VALLEY	Construction of New Assyut.
SOUTHERN UPPER EGYPT	Construction of new towns in Kena, Naga Hamadi, and Aswan. Increasing population density in the Red Sea area.

National Urban Policy Study (NUPS), Final Report, Appendices, vol.2, July 31, 1982, and Urban Strategy for Egypt, PADCO, Inc. Washington D.C., April 1983.

TABLE (8)

HOUSING, INFRASTRUCTURE AND INDUSTRIAL ESTABLISHMENT IN NEW TOWNS UP TO 30/6/1989: COST AND NUMBER

	10th of Ramadan	6th October	Sadat	Boug El Arab	New Salheya	New Damiette	15 May	Total
Productive Industries								
No. of Industries	340	139	61	40	15	--	-	595
Value of Capital LE(000)	191828	336590	180611	101054	25448	--	-	2563631
Value of Production LE(000)	1377936	329331	435899	138909	53454	--	-	2335419
Total Cost of Information LE (000) (1)	278506	369913	151154	121477	63019	74009	168520	1226598
Area Sold for Housing	2675	3199	488.3	148	-	632	837	7979.3
Industry	9978	3623	1853.5	3000	200	441	-	18094.47
Services	-	-	23.9	-	-	-	-	-
Trade & Tourism	23	158	8.5	57	11	38	13.5	308.99
Total (1000m)	12676	6980	2373.21	2205	211	1111	850.5	26382.76
Value of Land Sold								
Housing	16498	89355	12071.8	3700	-	39745	30759	192028.8
Industry	177336	107547	31073.94	24000	3841	13316	-	357113.9
Services	-	-	740.27	-	-	--	-	-
Trade & Tourism	5375	5977	401.51	1140	268	5778	902.5	19742.01
Total LE (000) (2)	199109	202779	44287.52	28840	4109	58839	31661.5	568884.8
2 : 1	0.7	0.5	0.3	0.2	0.1	0.8	0.2	0.5
Actually Received of Value (3)	119070	108506	17711.15	16175	2271	34238	8308	2885.6
3 : 1	0.4	0.3	0.1	0.1	0.04	0.5	0.05	0.2

Source: Compiled from the Authority of New Communities.

TABLE (9)
POPULATION AND EMPLOYMENT TARGETS IN NEW COMMUNITIES AND SETTLEMENTS

New Towns and Communities	Target Pop. (000) (1)	Distance from Urban Centres (1)	Economic Base (1)	Employment Target (000) (1)	Actual Pop.86 (2)	Employment 89 (3)	Investment 87/88 - 91/92 (4)	Actually Implemented till 30/6/89 (5)
10th of Ramadan	500	58 Km from Cairo	Industrial	150	8528	23827	291607	68451
6 October	350	30 Km from Cairo	Industrial + Touristic + Cultural	150	527	8325	677285	256523
Sadat	500	95 Km from Cairo	Industrial	150	1927	3665	161774	69364
El Ameriya	500	50 Km from Alex.	Industrial	150		1004	180490	
15 May	200	35 Km from Cairo					198190	125384
Salam	275	25 Km from Cairo						
El Obour	350	20 Km from Cairo						
El Salheya	150	Cairo Ismailia Road						
Borge El Arab	-	-		30 -	731 -	458 2305	66282	23409
New Damietta	250	Delta		75	49		157000	8360
New Beniseuf	120	North Upper Egypt		35			223400	8858
New Menya	120	North Upper Egypt		35			195600	6708
New Asyut	250	Aswan + New Valley		75			200000	420
New Sohag	250	Aswan + New Valley		75			120000	10550
New Valley								
New Aswan	250	Aswan + New Valley		75			200000	-
New Settlements							300000	26419
Homogenous Sectors	200-250	Cairo		75				

Source: Compiled and Calculated from:

(1) National Specialized Councils. Policy of New Urban and Rural Communities, 1984.

(2) Central Agency for Public Mobilization and Statistics. Preliminary Results of 1986 Census. 1987.

(3) Ministry of Reconstruction. 1989. New Communities. Housing Information Data of New Cities. Cairo: Information Centre.

(4) Authority of New Communities. Five-Year Plan 1987/88-91/92. June 1987.

(5) Authority of New Communities. Evaluation of the Projects of the Plan 1988/89 (actual figures).

TABLE (10)
LOCAL DEVELOPMENT FUND INDICATORS
1979-1989

Governorate	Value of Credits LE(000)	% of Credits to Total	Credits % Local Units Average LE	Divergence from Average	Rural Population (000)	%	No. of Users/1000 of Rural Inhabitans	Local Government Investment to Central Government Investment (%) (89/90)	% of Village Development Investment to Local Governorate Investment (%) (1989/1990)
Urban Governorate									
Cairo	-	-	-	-	-	-	-	14.3	---
Alexandria	-	-	-	-	-	-	-	15.9	---
Portsaid	-	-	-	-	-	-	-	6.6	---
Suez	-	-	-	-	-	-	-	2.3	---
Average	--	--	--	--	--	--	--	9.8	---
Lower Egypt									
Dammietta	1416.5	4.7	52464	19025	554.2	2.1	16.4	4	1.1
Dakahlia	2100	6.9	29167	-4272	2584.1	9.6	30.5	5.3	0.6
Sharkia	2617.8	8.7	37397	3958	2698.4	10	17	11.5	0.2
Kalyobia	750.5	2.5	17057	-16382	1414.8	5.2	6.4	4.5	0.03
Kafr EL-Sheik	1995.4	6.6	45350	11911	1389	5.1	25	11.9	0.08
Gharbia	3720.6	12.4	70199	36760	1931.3	7.2	29.5	8.6	0.1
Menoufia	619.8	2.1	9684	-23755	1779.4	6.6	less than 0.5/1000	18.7	0.1
Behera	1592.5	5.3	23775	-9664	3490.9	9.2	10	2.4	0.3
Ismailia	419.6	1.4	34967	1528	278.5	1	38	5.7	0.2
Average	15233.1	50.6	35562.2	2123.2	16120.6	6.2	16.4	8.1	0.3
Upper Egypt									
Giza	1908.4	6.3	45438	11999	1573.7	5.8	19	8.4	0.3
Beni Suef	2334.6	7.8	61438	27999	1080.8	4.0	13.4	11.1	0.3
Fayaum	2599.6	8.6	66655	33216	1185.3	4.4	4.3	82	0.1
Menya	1863.7	6.2	32133	-1306	2098.7	7.8	7.3	12.7	0.1
Assyuit	810.7	2.7	16214	-17225	1604.7	5.9	33	6.4	0.7
Souhag	2624.2	8.7	51456	18017	1918.6	7.1	7.3	31.9	0.3
Qena	961.4	3.2	20028	-13411	1728	6.4	7.3	3.8	0.7
Asswan	735.5	2.4	33432	-7	481.3	1.8	18.7	6.6	0.4
Average	13838.1	45.9	40849.2	59282	11671.1	5.3	13.7	20.4	6.4
Frontier Governorates	1024.2	3.4	6967	-54420	207.4	0.7	24.7	7.36	0.56

Source: Calculated from Organization of Development of Egyptian Villages. Report No.1 October 1989 pp. 79-86 (Red Sea & South Sinai are not Included).

TABLE (11)

DISTRIBUTION OF INDUSTRIES, BY SIZE
IN THE DIFFERENT GOVERNORATES

Governorate	Small (8-49)		Medium (50-449)		Large (500 and +)	
	No.	%	No.	%	No.	%
Urban Governorate						
Cairo	31494	33.2	47392	37.3	163385	26.3
Alexandria	11292	11.9	24831	19.6	138566	22.3
Portsaid	533	0.6	953	0.8	4062	0.7
Suez	576	0.6	388	0.3	10215	1.6
Average	43895	11.6	73564	14.5	316228	12.7
Lower Egypt						
Damietta	1226	0.6	518	0.4	9132	1.5
Dakahlia	301	1.3	5815	4.6	11354	1.8
Kalyubia	10086	10.6	12771	10.1	75956	12.2
Sharkia	3577	3.8	4185	3.3	13116	2.1
Kafr El-Sheik	2084	2.2	2341	1.8	544	0.1
Gharbia	7150	7.5	7357	5.8	37425	6
Menoufia	2584	2.7	1709	1.3	10667	1.7
Behera	3092	3.3	3134	2.5	46486	7.5
Ismailia	1120	1.2	1084	0.9	2657	0.4
Average	31220	3.7	38914	3.4	207337	3.7
Upper Egypt						
Giza	6866	7.2	7209	5.7	40139	6.5
Beni Suef	1488	1.6	1045	0.8	3055	0.5
Fayaum	2280	0.2	1498	1.2	3465	0.6
Menya	1917	2.0	2390	1.9	6692	1.1
Assuit	1719	1.8	2673	2.1	3988	0.6
Souhag	918	1	2468	1.9	4812	0.8
Qena	1634	1.7	1517	1.2	20919	3.4
Asswan	--	--	1101	0.9	9605	1.5
Average	16822	1.9	19901	2	92675	1.9

Source: Calculated from Central Agency for Public Mobilization and Statistics. Statistics of Industrial Production 1982. June 1987.

TABLE (12)

INDICATORS OF SOCIAL SERVICES HOUSING AND HEALTH SERVICES BY GOVERNORATE

Governorate	of Public ouses to Total Public ouses at National Level (1)	of Private ouses to Total Private ouses at National Level (1)	ed 1000 in ospitals 1985 (2)	P ysician 10000 1985 (2)	Users 10000 1985 (2)	ealt Per Capital Expenditure 1980 81 L.E. (2)
Urban Governorate						
Cairo	41.2	52.7	3.8	7.53	6.4	10.25
lexandria	8.1	24.8	2.8	9.96	8.93	7.14
Portsaid	2.1	0.4	3.5	9.57	18.15	7.45
ue	3.7	0.68	3.1	13.51	15.1	7.55
verage	13.8	19.6	3.3	10.14	12.15	8.1
Lower Egypt						
amietta	0.8	1.59	2	8.35	13.94	3.32
a a lia	3	2.5	1.5	6.59	6.51	2.86
ar ia	3.5	2.8	1.3	3.36	13.94	2.7
alyobia	2.5	1.2	3.1	3.9	7.16	4.48
afr El	1.04	2.9	1	5.98	9.33	2.39
ei	1.04	0.56	1.8	5.77	12.29	4.11
G arbia	2.8	1.68	1.3	4.45	10	3.09
Menoufia	0.9	0.75	1.1	3.63	6.51	3.44
e era	4.3	0.53	1.7	5.97	8.54	4.66
Ismailia						
verage	2.2	1.6	1.64	5.33	8.9	3.45
Upper Egypt						
Gi a	11.7	0.24	2.4	6.36	5.77	2.63
eni uef	1.09	0.27	1.2	4.1	8.92	2.46
Fayaum	1.09	0.21	1.4	6.11	11.95	3.07
Menya	1.8	1.14	1.1	3.66	5.77	2.39
ssyuit	1.14	1.4	1.4	7.27	10.38	2.95
ou ag	1.8	1.7	1.1	4.69	2.82	2.38
ena	0.36	0.29	1.1	3.19	3.29	2.32
sswan	0.34		1.9	6.61	4.97	2.54
verage	2.4	0.6	1.45	5.25	6.7	2.8
Frontier Governorates	1.33	0.07	2.25	20.6	10.6	7.25
General verage	4.9	5.3	2.16	(3) 10.3 Excluding Frontier G. 9.2	9.6 Excluding Frontier G. 9.2	5.7 Excluding Frontier G. 4.7

Source: (1) Ministry of Housing, 1987.
(2) Ministry of Health, Department of Statistics and Evaluation. A Study of Health Expenditure and Financing Health Profile, 1980/81.
(3) It is Important to exclude Frontier Governorates in Health Indicators due to the Low Percentage of Population in these Governorates.

TABLE (13)
EMPLOYMENT, INVESTMENT AND OUTPUT BY SECTORAL DISTRIBUTION
1959/60 - 1986/87 - 1991/92

Sectors / Period	Productive Sectors						Services Sectors		
	Agriculture	Industry & Ministry	Petrol	Electricity	Construction	Total	Total Productive Services	Total Personal Services	Total
1959/60-65/66									
E	52.8	10.6	-	0.2	4.0	67.6	13.9	18.5	100
I	22.5	26.7	-	8.7	1.0	58.9	19.7	21.4	100
O	20.8	42.8	-	0.9	4.8	69.3	12.3	18.4	100
1966/67-1973									
E	48.5	11.7	-	0.3	4.0	64.5	14.1	21.4	100
I	16.8	27.7	4.3	10.4	1.2	60.3	21.1	18.6	100
O	20.0	37.7	2.3	1.0	3.3	64.3	14.5	21.2	100
1974-80/81									
E	4.3	12.3	0.2	0.5	5.0	59.3	14.9	25.8	100
I	7.3	26.7	10.7	5.6	3.4	53.7	26.8	19.5	100
O	18.8	29.1	8.0	0.7	6.3	62.9	28.1	16.0	100
1981/82-82/83									
E	36.0	12.4	0.2	0.5	5.6	54.7	15.4	29.9	100
I	10.1	22.3	3.2	7.5	2.3	45.4	27.6	27.0	100
O	15.8	25.2	9.6	0.7	6.2	57.5	24.1	18.4	100
1982/83-86/87									
E	33.6	12.5	0.2	0.6	5.8	52.7	13.4	33.94	100
I	9.2	21.4	3.8	7.3	2.8	44.5	24.7	29.0	100
O	17.4	14.4	14.5	0.7	4.7	51.6	30.4	18.04	100
1986/87-1991/92									
E	34.4	15.8	0.25	0.6	4.7	55.7	15.9	28.2	100
I	10.8	26.6	2.4	10.4	2.6	52.8	15.8	31.4	100
O	18.1	17.9	3.2	1.3	4.6	45.1	31.1	16.8	100

Source: Calculated and Compiled from:

(1) Shura Council. Investment Policies 1985.

(2) Ministry of Planning. Five-Year Plan 1987/88 - 91/92

TABLE (14)

PERCENTAGE DISTRIBUTION OF INVESTMENT AMONG SECTORS IN THE FIVE-YEAR PLAN 1978-1982 AND 1987/88-1991/92 PER CAPITA INVESTMENT IN 1980s

Governorate	Agriculture		Irrigation and Draining		Industry and Mining		Petrol		Electricity		Construction		Tourism
	87/88/91/92 (%)	1980 LE per Capita	87/88/91/92 (%)	1980 LE per Capita	87/88/91/92 (%)	1980 LE per Capita	87/88/91/92 (%)	1980 LE Per Capita	87/88/91/92 (%)	1980 LE Per Capita	87/88/91/92 (%)	1980 LE Per Capita	87/88/91/92 (%)
Urban Governorate													
Cairo	8.2	1.3	0.02	0.9	29.5	38.7	0.1	0.3	15.8	7.4	4.3	5.8	43.2
Alexandria	5.4	4.5	2.4	3.5	23.1	30.1	31.8	9.5	10	30.2	0.4	4.2	4.5
Portsaid	2.0	0.3	1.5	8.5	1	33.5	18.4	-	0.3	45	-	2.5	2.8
Suez	2.4	5.3	0.7	6.5	3	36.8	6.4	11.9	10.7	66.4	-	6.5	-
Average	4.5	2.9	1.2	4.9	14.2	34.8	14.3	30.4	9.2	62.3	1.2	4.8	12.6
Lower Egypt													
Damietta	3.5	6.2	2.4	4.2	0.5	9.6	0.1	-	8.1	2.1	0.2	1	-
Dakahlia	2.0	0.7	4.5	6.4	0.2	10.2	-	-	6	3.4	-	0.4	-
Sharkia	4	0.4	5.9	8.6	1.4	3.2	-	-	1.2	7.4	0.6	0.5	-
Kalyobia	1.4	0.6	1.4	0.3	8	35.3	4.3	1.4	4	7.4	3.3	0.8	-
Kafr El-Sheik	0.1	2.7	4.2	0.8	0.2	1.7	-	-	0.1	0.5	-	0.4	-
Gharbia	2.0	0.05	1.2	2.1	3.6	15	0.3	0.2	0.7	0.3	0.1	0.4	-
Menoufia	2.2	0.9	1.08	0.8	0.8	2	-	-	0.1	1.7	-	0.3	-
Behera	19.2	10.5	14.4	9.8	3	19.6	-	-	8.6	7.1	-	1	-
Ismailia	0.5	1.3	3.9	13.7	0.5	18	-	1.3	1.5	46.6	-	2.1	-
Average	4.2	2.6	4.3	6.2	2	12.7	0.5	0.3	3.4	8.5	0.5	0.8	-
Upper Egypt													
Giza	1.6	0.3	3.5	0.7	1.3	15.6	-	-	0.4	0.7	0.7	1.5	22.4
Beni Suef	1.4	1.5	0.9	6.6	0.5	2.8	-	-	0.3	0.8	0.1	0.3	-
Fayaum	2.5	2.3	2.4	2.1	0.09	3.1	-	-	0.3	0.6	-	0.2	-
Menya	4.0	0.5	2.1	5.4	4.6	4.1	-	-	0.7	0.8	-	0.2	2.2
Assyuit	1.3	0.3	1.4	1.9	4.2	26.6	8.5	-	5.9	1	0.6	0.3	-
Souhag	0.4	2.2	1.1	3.6	0.7	1.5	-	-	0.5	1.6	-	0.2	-
Qena	0.6	1.2	12.4	8.3	4.8	16.5	-	-	3	3.5	0.6	0.6	10
Asswan	4.0	5.4	6.7	25	2	24.6	-	-	2.1	7.1	0.1	1.8	5.5
Average	2.0	1.7	3.8	6.7	7.8	11.9	1.1	-	1.65	2	0.3	0.6	5.01

Source: Calculated from: Ministry of Planning: Five-Year Plan 1978-1982
Five-Year Plan 1987/88-1991/92
1980 Year Plan

Transportation		Trading & Finance		Housing		Public Facilities		ervices		Total	
87/88/ 91/92 (%)	1980 LE Per Capita	87/88/ 91/92 (%)	1980 LE Per Capita	87/88/ 91/92 (%)	1980 LE Per Capita	87/88/ 91/92 (%)	1980 LE Per Capita	87/88/ 91/92 (%)	1980 LE Per Capita	87/88/ 91/92 (%)	1980 LE Per Capita
26.3	44.6	37	5.7	31.3	11.7	28.3	28.9	15.5	11.9	21.8	157.3
10.9	48.8	13.8	4.9	6.6	4.3	20.4	37.7	1.1	4.6	14	134.7
2.2	72.9	2	7	0.6	3.5	0.8	15	1	11.7	1.8	215.1
2.3	226.1	1.1	16.2	0.02	21.4	0.5	88.7	0.7	10.4	3.6	711.2
10.4	98.1	13.5	8.5	9.6	10.2	12.5	42.6	4.6	9.7	10.3	217.1
3.1	7	4.7	-	0.02	0.6	0.2	12.2	1.2	5.1	2.6	41.7
1.9	3	-	0.02	3	0.5	2.5	3	4.9	3.8	2.8	27.1
1.2	10	0.2	0.4	2.6	1.7	1.7	6.7	5.5	5.5	2.0	42.5
3.2	5.1	1	0.1	0.02	1.1	1.4	1.5	1.5	1.1	2.8	5.9
0.8	3.9	-	-	0.02	0.5	1.6	4	0.4	1.3	0.9	24.8
1.1	4	0.7	0.4	0	0.6	1.4	3.6	2.2	3.6	1.7	21.3
0.5	3.5	0.1	-	0	0.8	0.8	2.1	2.5	3.2	0.8	16.3
1.0	62	0.2	0.04	3.6	1.5	3.2	5.2	2.7	2.2	4.4	53.7
0.3	14.3	0.1	0.6	1.5	4.4	0.9	34.5	2.8	8.7	1.5	154.9
1.5	16	0.8	0.2	1.9	1.3	1.5	8.1	2.6	3.9	2.2	50.9
4.7	9.7	1.8	0.7	1.7	1.9	17.6	1.4	1.8	6.6	2.6	29.8
2.3	3.5	0.5	-	1.4	0.6	1.4	2.1	1.2	1.6	1	20.6
0.5	2	0.4	-	0.02	0.5	0.9	2.8	1.2	1.2	0.6	24.9
0.5	1.8	0.3	0.1	2	0.7	0.9	2.3	2.1	2.6	1.8	23.9
1.1	1.6	0.1	0.4	0.02	0.9	0.8	2.1	2.5	5.9	2.9	41
0.5	1.9	0.2	-	0.9	0.5	1.2	3.1	1.4	1.1	0.7	15.8
2.1	2.9	0.3	-	2.8	0.4	1.3	6.1	1.7	16.8	3.1	55.7
0.9	15.7	0.1	0.6	10.2	3.3	1.3	9.7	1.4	38.7	1.9	36.0
1.6	4.9	0.5	0.2	2.4	1.1	3.2	3.7	1.7	9.3	1.8	36.6

REFERENCES

Abdel Khalek, G., and Tignor, R. 1982. The Political Economy of Income Distribution in Egypt. New York: Holmes and Meir.

Al Ahram. 1989. Cairo. 31 July.

Ainah, F. 1981. "Primate Cities in the Arab World." In Population and Development in the Middle East. Beirut: United Nations, Economic Commission for Western Asia (ECWA).

Clark, J. 1978. "Primate Cities in the World and the Middle East." Asia. In The Population Framework. Beirut: United Nations, Econnomic Commission for Western Asia (ECWA).

Clark, T.N. 1981. "Urban Policy Analysis." Urban Affairs Review. Volume 21.

Egypt, 1979. Law of Local Government. Law No. 43. Cairo.

_____. 1983. Law of Physical Planning. Law No.3. Cairo.

Egypt, Central Agency for Public Mobilization and Statistics (CAPMAS). 1987. Preliminary Results of Census 1986. Cairo.

_____. 1988. Statistical Yearbook. 1952-1986. Cairo.

_____. 1989. Industrial Annual Production Statistics, 1982. Cairo.

Egypt, Ministry of Development. 1981. State of Housing and Land Reclamation,Comments on the Second Round Alternative for the National Urbanization Study. Egypt: PADCO.

_____. 1982. National Urban Policy Study. Working Paper on Characteristics of Alternative Strategy. Cairo.

_____. 1988a. National Urban Policy Study. Egypt Urban Growth and Urban Data Report. Cairo.

_____. 1988b. New Communities. Housing and Utilities. Greater Cairo Region. Implementation of the Homogeneous Sector Concept. & Interim Report. Cairo.

Egypt, Ministry of Reconstruction. 1989. New Communities. Housing Information Data of New Cities. Cairo: Information Center. (In Arabic).

Findley, S.E. 1984."Rural Development Programmes Planned versus Actual Migration Outcomes." In Population Distribution Policies in Development Planning. New York: United Nations.

Fuchs, R.J., and Demke, G.J. (1984)"Population Distribution Measures and Distribution Mechanism." In Population Distribution Policies in Development Planning. New York. United Nations.

General Organization for Physical Planning. 1983. Long Range Urban Development Scheme. Cairo: GOPP.

Ghanim, E.S. 1982 Local Government Finance. MIT Cairo University, Technological Planning Program. Cairo.

Gordon, P. N.d. Urbanization in the Arab Republic of Egypt. United States Agency for International Development (USAID). (unpublished).

Hansen, Niles M. 1981. "Development from Above. The Centre Down Paradigm." In Development from Above or Below, edited by Walyer B. Stohr R. and Fraster Taylor. John Wile and Son.

Kheir El Din, H. 1989. "The Impact of the Protection Policy on Production and Exports of the Industrial Sector in Egypt." L'Egypte Contemporaine (Cairo), no. 415-416, January-April.

El Kilani, S.M., and Makzoud, S.A. 1982. " Regional Disparities in Egypt and Methods of Estimations." Seventh International Conference for Social and Population Statistics. Cairo.

Lacquian, A. 1981. "Review and Evaluation of Urban Accomodationist Policies in Population Redistribution". In Population Distribution Policies Planning. New York: United Nations.

El Miniawy, A., and El Din, J. 1989. A Field of the Possible Elimination of Governmental Restrictions on the Role of the Private Sector in All Stages of the Egyptian Rice Distribution. Cairo, Ministry of Agriculture and Land Reclamation. Undersecretariat for Agricultural Economics and Statistics.

Nassar, H. 1986. Population Explosion and Regional and Economic Development Policies in Socio-Economic Development of New Cities. Cairo: National Centre for Social and Criminological Research. (In Arabic).

National Specialized Councils. National Council for Services, Housing Sector. 1984. New Urban and Rural Settlements. Cairo. (In Arabic).

Richardson Harry W. 1981. "Defining Urban Population Distribution Goals in Development Planning." In Population Distribution Policies in Developing Countries. New York: United Nations.

_____. 1984. "Population Distribution Policies." In Population Distribution, Migration and Development. International Conference on Population.

Rodinelli, D.A. 1983. Secondary Cities in Developing Countries. Sage Library of Social Research.

Sayed, H. 1984. "Population Policy in Egypt." In Twenty Five Anniversary Commemorative Conference. Cairo: Cairo Demographic Centre.

Sherer, S. 1981. National Towns and Satellite Cities: A Strategy for Deconcentralization of Urban Development. Cairo.

Shorter, F. 1989. "Cairo's Leap Forward People: Households and Dwelling Space." Cairo Papers, vol. 12. Monograph. Cairo: American University in Cairo.

Urzua, R. 1981. "Population Redistribution Mechanism as Related to Various Forms of Development." In Population Distribution in Development Planning. New York: United Nations

USAID (United States Agency for International Development). 1980. ARE Urban Sector Report. Cairo.

World Bank. 1978. Arab Republic of Egypt: Economic Management in a Period of Transition. Volume II. Human Resources. Washington, D.C.

_____. 1983. World Development Report. Washington, D.C.

Population Spatial Distribution Policies in Jordan

*Musa Samha**

* *Department of Population Studies, University of Jordan*

INTRODUCTION

Discussions of population growth and urban change in Jordan are complicated by the fact that historically the country's boundaries have changed a number of times and the definition of "urban" has changed between population counts. In order to reduce the complexity of these problems we have tried to use the country reference Jordan to refer to the current bounded country comprising that area historically known in the region as the East Bank unless specific reference is made to a more inclusive area. Similarly, current definitions of "urban" as specified for each count have been employed unless specifically noted.

Jordan's demographic history has been strongly influenced by three sets of inter-related factors. Geographically, the country is a transitional area lying between the desert and the cultivated lands of the Middle East. About 84 per cent of the total land area of Jordan is desert, and the limited viability of this land area has had a marked influence on patterns of population distribution. Economically, Jordan's resources are limited largely to phosphate, and the agricultural lands along the Jordan Valley and the highland belts in the Northwestern part of the country. With these limit resource parameters population has tended to concentrate in the Capital and a few large towns. Finally, and perhaps most important, political factors have had a strong influence on both the growth and distribution of population within Jordan, and represent a clear example of how the fragmented political structure of the Region has been superimposed upon the country.

As late as 1938 the population of Transjordan was estimated to have been 300,000. By 1948 the East Bank was thought to have some 400,000 inhabitants, but the 1948 events affecting Palestine resulted in a portion (5,650 sq. Km.) of the West Bank territory being added to Jordan (Hindle, 1964). This added territory increased the country's size by just over six per cent, but along with this came some 400,000 inhabitants who lived in the territory increasing its population size by 100 per cent. At the same time Jordan had to absorb another 450,000 refugees from the remainder of Palestine, thus increasing its total population size by a factor of three in a very brief period of time. With the 1967 War came another influx of refugees, this time to the East Bank and totaling some 385,000 persons. The combination of these events thus left Jordan as one of the few countries where refugees and displaced persons make up a majority of the population.

As Samha (1980) has demonstrated the forced migrations of 1948, 1956, 1967, and 1973 have been a major contributor to Jordan's high rate of population growth. Also contributing to this, however, has been a relatively high rate of fertility and a declining rate of mortality. El-Asad and Khalifa (1977) have shown that there are a number of social and economic fertility differentials operating in Jordan, and that these are influencing the fertility decline. Nevertheless, with crude birth rates of 44 per 1,000 in 1979 and 38 per 1,000 as late as 1983 one must conclude that fertility remains relatively high. Not surprisingly, this level of fertility has produced a relatively young age structure (at the time of the 1979 Census 51 per cent of the population was less than 15 years of age) which has important implications for the types of services needed by the population, and its labor force structure.

Table 1 shows data from the last three Censuses along with the latest population estimates for each of the governorates making up the East Bank. Over the period from 1952 to 1985 these data indicate that the population of Jordan increased from nearly 587,000 to nearly 2.7 million. Samha (1988) has discussed the importance of the political events mentioned above for the growth of the East Bank population. Although refugees originally moved into the West Bank area, after 1952 the wave of migration began from the West to the East Bank helping to account for the 53 per cent increase in the latter from 1952 to 1961 (Buhairy, 1973). When the tragedy of 1948 was repeated in June of 1967 another 385,273 migrants moved into the East Bank from the West Bank and the Gaza Strip; some 229,000 of these migrants came from the West Bank alone. The continued Israeli attacks on the West Bank following the June War displaced another 40,000 persons from the Jordan Valley and particularly the Karameh area (Samha, 1979). Over the three decades from 1952 - 1979 the population of the East Bank increased at an annual rate of 4.8 per cent, and although this has declined to 4.2 per cent in more recent years (1979 - 1985) it continues to be very high by world standards.

The data in Table 1 also show that each of the governorates of Jordan increased in population size over the period observed although at markedly different rates. These growth rate differentials, in turn, have resulted in a remarkable redistribution and concentration of population. Amman increased in size from just 214,000 in 1952 when it housed 36 per cent of the total population to more than 1.5 million in 1985 when it accounted for nearly 56 per cent of the total population. Each of the other governorates had populations which increased by factors generally ranging from two to three times their size in 1952, but each contained a successively smaller share of the total population. Indeed, among governorates other than Amman, the trend of concentration is clearly revealed by the perfect inverse relationship between population size at the start of the period and the relative decrease in the per cent of the total population contained in the governorate over the period. Thus, although Amman and Irbid contained about 73 per cent of the total population in 1952, their share of the total population in 1985 was nearly 84 per cent. Similarly, Amman, Irbid and Balqa contained nearly 85 per cent of the population in 1952, and nearly 91 per cent by 1985.

Wander (1966) has shown that much of this concentration is oriented toward the northwest corner of the country, and has been contributed to by voluntary internal migration as well as natural change and the refugee movements mentioned above. During the first intercensal period Amman was the only governorate which had an annual net growth rate due to migration, but during the second intercensal period both Amman and Irbid had net contributions to their growth from migration, while during the period from 1979 - 1985 it is expected that this was so for Amman and Balqa. A detailed discussion of the differential growth rates among governorates and their components can be found in Samha (1987).

THE URBAN POPULATION

Within Jordan definitions of the urban population have changed over the period being observed (Jordan Department of Statistics, 1983 and 1964). Prior to 1961 District headquarters, localities of 10,000 or more (excluding Palestinian Refugee Camps in rural

areas) and localities with 5,000 - 9,999 inhabitants, as well as the suburbs of Amman and Jerusalem, where two thirds or more of the economically active males were engaged in non-agricultural activities, were considered urban. In 1979, a definition of urban was adopted which placed more emphasis on administrative function and less emphasis on population size. The district and subdistrict centers of each governorate were defined as urban, irrespective of population size. In addition Russeifa and Sweileh were treated as urban. Using this criteria the country had 28 urban centers in 1979.

Assuming that these changes in definition capture the changing social and economic conditions of "urbanization" in Jordan, they show that the per cent of the total population urban increased from just under 39 per cent in 1952 to nearly 61 per cent in 1985. Urbanization proceeded most rapidly during the period from 1952 - 1961 when it increased from 39 to 53 per cent. Following this surge, the pace of urbanization slowed considerably reaching just nearly 62 per cent by 1979 and nearly leveling-off to about 61 per cent by 1985. Among the governorates examined in Table 2 Amman had the highest per cent of its population residing in urban areas at each point in time. Among the remaining governorates there was a tendency for those with smaller total populations to have the higher levels of urbanization at both the earliest and latest dates observed. While this tends to suggest that the administrative criteria employed at both times may be influencing the level and trend of urbanization in each of these governorates, this observation is mitigated by the fact that the pace of urbanization varied substantially across governorates.

Table 3 shows the per cent change in the per cent urban between each population count and the Eldridge Index. This index in effect standardize for the level of urbanization at the beginning of the period, and the data show that the patterns described above capture the basic changes occurring over the period from 1952 - 1985.

Table 4 shows the urban population growth rate for each interval for the entire East Bank and for each of the governorates. For the East Bank as a whole the urban population annual growth rate declined for successive intervals from 8.35 to 5.71 and to 3.88. Thus, the annual growth rate for the urban population for the latest interval was some 53 per cent lower than the comparable rate for the earliest period. There has been considerable variation among the annual growth rates of the governorates as suggested by the fact that during the first interval only one governorate (Amman) had a rate which exceeded that for the entire area while during the third interval three had rates above the average for the entire area. The overriding characteristic over the whole period, however, has been the convergence of urban growth rates among the governorates in more recent periods. This convergence can be taken as indicative of the spread of urbanization throughout the country (Samha, 1984).

Components of Urban Population Change: The relatively high rates of urban population increase observed from Tables 4 and 5 have been a product of both natural change and in migration. One would generally expect rates of natural increase in urban areas to be lower than rates of natural increase in rural areas. This, however, has not been the case in Jordan. Ettema (1970) and Wander (1966) using data from the 1961 Census show that rates of fertility in urban areas in Jordan are comparable to rates of fertility in rural areas. The same situation was confirmed by El-Asad and Khalifa (1977)

in 1972 and 1976. The relatively high rates of natural increase in Jordanian urban centers are a product of two factors. First, a concentration of health care services in urban areas has reduced mortality, and improved standards of health have simultaneously led to higher birth rates. Second, many of the refugees and internal migrants have settled in the cities of the East Bank. These populations, the refugees settling in camps in particular, are characterized by high fertility.

The fertility of internal migrants has also remained relatively high. Most rural to urban migrants in Jordan make their move directly from rural to urban areas, and this mobility frequently involves entire households who bring their rural fertility values and norms with them (Samha, 1984 and 1979). Moreover, migrants from the same rural areas frequently reside near each other in urban areas, and this helps to perpetuate rural ways in the city.

Urban population growth has also been substantially contributed to by migration. Table 5 shows the population growth rate of cities and the net annual growth for each of the periods 1952 - 1961 and 1961 - 1979 due to migration. The 1967 wave of in migration was greater than earlier wave mentioned above. According to Samha (1980) 189,223 migrants and refugees moved into East Bank cities in 1967 alone. The majority of these (128,729) moved to Amman, but other places also received large numbers of migrants during this year (Zarqa, 32,644; Salt, 13,729; Irbid, 10,448). Statistics compiled by the UNRWA (1980) suggest that there were some 716,372 refugees in the East Bank area with nearly 71 per cent of these in the Amman area alone. Two other areas (Irbid and Balqa) had each over 100,000 refugees within their borders.

These waves of refugees occurred concomitantly with waves of internal migration, and these too were directed at a few major cities. During the 1952 - 1961 period Amman and Zarqa received 90 per cent of the total migrant population moving to major urban centers. Another study (Jordan Department of Statistics, 1967) for the period 1962 - 1967 has identified Amman, Zarqa, Ruseifa and Aqaba as major points of destination for internal migrants. Of the 44,000 persons who moved to these places 63 per cent moved into Amman, 28 per cent into Zarqa with each of the other two places receiving substantially fewer.

RURAL POPULATION GROWTH

While urban population growth in Jordan has been characterized by two salient trends (the general decline in the rate, and the convergence of rates among governorates), rural population growth has tended to follow nearly the opposite trends. That is, the data in Table 4 show a general trend for the rate of rural population growth to increase during successive intervals; indeed, the annual rural population rate of increase for the country was more than double for the last over the first interval. Also contrary to what was observed among the governorates for rates of urban population increase, the diversity in rural rates increased from the first to the latest interval.

THE DISTRIBUTION OF URBAN AREAS

So far we have identified three demographic factors (the forced migrations of refugees, internal migrations, and natural increase) which have had profound influences on the growth of the East Bank and the differential growth, and thus distribution, of the country's population between governorates and urban and rural areas. These same three factors have operated to produce sharply different growth rates among the cities of Jordan, and this, in turn, helps to account for the increasing concentration of population in the Northwestern portion of the country.

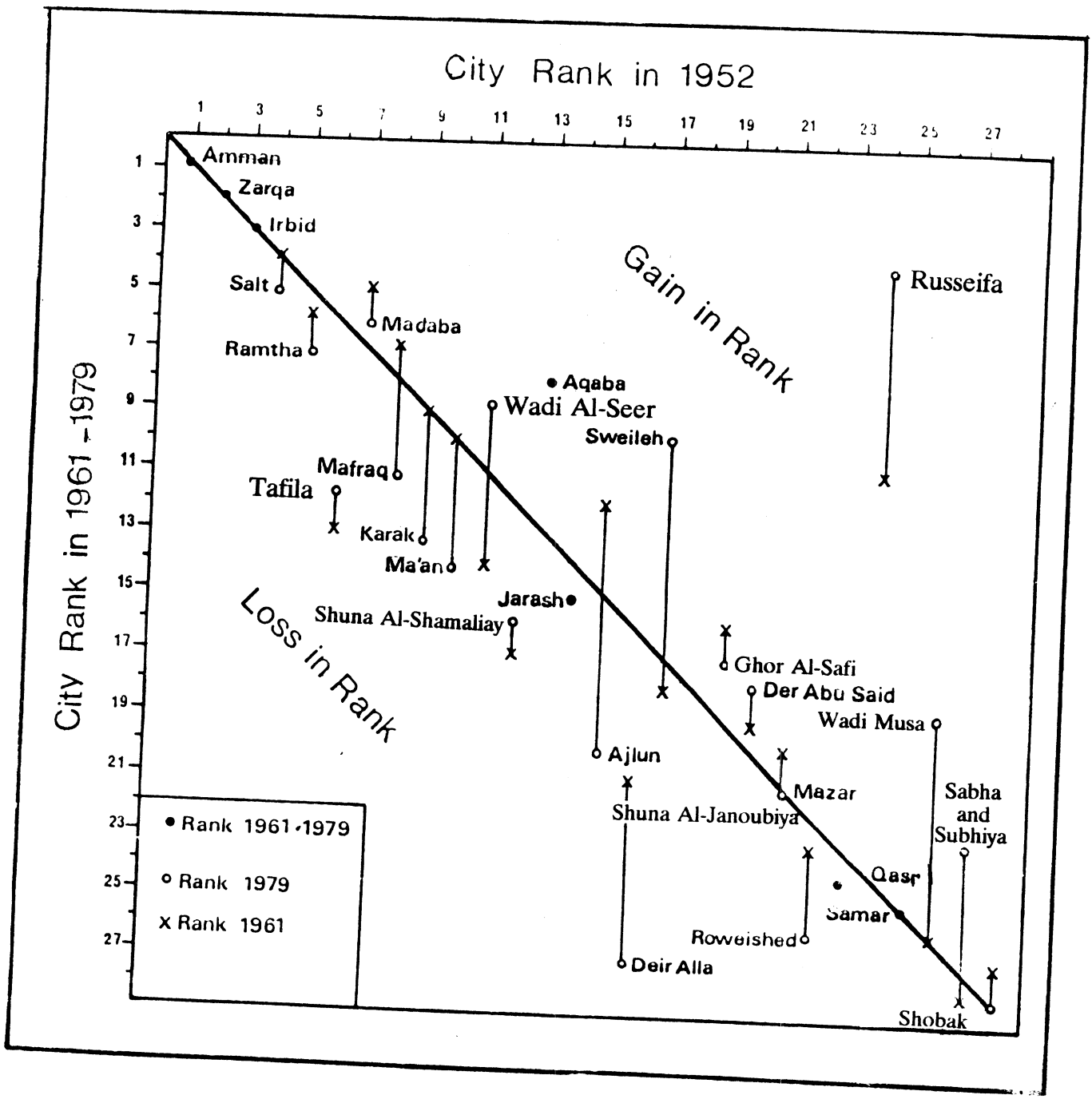
It is important to realize, however, that these demographic factors have been influenced by some important social and economic trends which have also played a key role in the growth and development of Jordanian cities. Key among these has been Jordan's ability to respond to changes in its Regional environment. A skilled and relatively modern labor force coupled with a high degree of political stability allowed Jordan, and its capital, Amman in particular, to attract many of the Regional commercial and financial institutions earlier located in Beirut (Samha, 1979). The expansion of these functions stimulated more growth and modernization of the infrastructure of the city, which in turn, stimulated more employment opportunities and rural to urban migration. The growth and expansion of Amman carried it beyond its traditional boundaries to form the Amman - Zarqa metropolitan area. This area now contains more than half the population of the nation and dominates the urban system of the country.

The data in Table 5 show that several other cities had relatively high rates of growth during one or both of the periods under observation. Equally important, however, is that these data also show that a number of Jordanian cities were losing population as a result of migration, while others were growing substantially because of migration. Clearly, then, urban to urban as well as rural to urban migration was contributing to the emerging pattern of population distribution. Samha (1979) has shown that nearly 63 per cent of the voluntary internal migrants to Amman in 1977 came from other cities of the East Bank.

Amman's growth due to migration appears much greater during the first than the second period, but this reflects more the growth and expansion of the area than a reduction in migration during the second period. If we take into account the migration into the capital's surrounding suburban cities (Russeifa, Sweileh, and Wadi Al-Seer) we can see that migration into the broader area continued at a relatively high rate. Not only was this suburban growth contributed to by migrants from outside the area, but there is evidence to suggest that many of the migrants to these suburban areas originated from inside of Amman. Thus, at the same time that there were movements to concentrate population in this broader area, the population within the area was decentralizing. Also contributing to these processes were the return of Jordanians living abroad and a labor immigration of foreign nationals, 66 per cent of which settled in Amman and its suburbs (Samha, 1984).

Figure 1 shows the rank size distribution of cities in 1952, 1961, and 1979 by means of a quadrilateral diagram where the horizontal axis indicates the city rank in 1952 and the vertical axis the difference in rank between 1961 and 1979. Places above the

Fig. (1) Jordanian Cities Gaining or Losing in Rank (1952-1979)



diagonal are those which gained in rank and places below the diagonal are those which declined in rank over the period. Several observations about the system of cities in Jordan can be made from this Figure. First, in all three reference years cities in Jordan deviated considerably from the rank size hypothesis. Second the greatest stability in rank over time appears among the country's largest cities and the least stability occurs among the countries smaller and medium size cities. Third, among those cities which declined in rank, there was a marked tendency for them to have also had a net loss of population resulting from migration at some point over the interval (see Table 5). Fourth, four cities in the Amman area (Madaba, Russeifa, Sweileh and Wadi Al-Seer) all gained in rank, and did this within the context of the stability of ranks for Amman and Zarqa. Thus, while Amman clearly dominated the urban structure of the country at the start of the period there was a clear trend toward greater population concentration in a greater Amman area over the period.

While these data clearly suggest that Amman and Zarqa are exercising urban hegemony over other cities in the country, there is, in fact, other data which strongly support this position. A recent study conducted by the department of Statistics reported that 82.8 per cent of all employment enterprises in the country and 92.6 per cent of the total employment offered by enterprises are located within Amman. Zarqa contained another 5.3 per cent of the enterprises offering 3.1 per cent of the country's total enterprise employment. In short, 88.1 per cent of Jordan's enterprises and 95.7 per cent of their employment are located in the Amman-Zarqa area. At the other end of the scale the cities of Salt, Karak, Ma'an and Aqaba contained no more than 5 per cent of the enterprises and 1.9 per cent of their employment.

Finally, we calculated the four city index for Jordan. The results of these calculations showed that the population of the city of Amman was greater than that of the combined total of the three next largest cities by 62 per cent in 1952, 57 per cent in 1961, and 71 per cent in 1979. Quite clearly then the position of dominance occupied by Amman has increased over time undoubtedly placing a heavy burden on the cities institutional infrastructure and services, draining off a large part of the rural surplus population and impeding the growth of smaller and medium sized cities. That is, Amman's growth and the growth of the area around Amman has been a product of not only the forced migrations from outside the East Bank, but also the voluntary migrations from other urban and rural areas within the East Bank.

DEVELOPMENT CONTINGENCIES RESULTING FROM POPULATION GROWTH AND REDISTRIBUTION ON THE EAST BANK

The uneven pattern of population distribution in the context of rapid population growth for the period from 1952 - 1985 outlined above created a number of pressures and strains on Jordan's development effort, and helped to contribute to some growing disparities between regions and urban and rural areas as well as bringing about some new and unanticipated problems.

Basic resource problems are clearly a case in point. Urbanization has occurred, in part, at the expense of the agricultural sector. Only six per cent of Jordan's land is

arable, and estimates suggest that urban expansion has consumed some 15 to 20 per cent of this removing it from the agriculturally productive pool of land. The viability of rangelands has been seriously jeopardized as over grazing and unjudicial ploughing practices have resulted in the removal of vegetation and soil erosion. Similarly, mechanization, mining, and garbage incineration have resulted in air and land pollution around quickly growing population settlements and particularly with the increased use of nonbiodegradable plastic packaging, containers, and products. There is a growing need for subterranean drainage in irrigated areas, but the cost of extending sewerage and wastewater networks to many areas is high due to their topographic and geological nature as well as the long distances involved in carrying wastewater to treatment facilities.

In some parts of the country water resources have been either seriously exhausted or salinized due to excessive demand, and in other areas their quality has been seriously reduced because of chemical and biological pollution. Only limited studies of water resources have been undertaken, and there is not long term policy to bring about a balance between water supplies and demand. Water distribution systems in major cities and irrigation networks in agricultural areas are obsolete and in a bad state of repair leading to a high rate of water loss. Water problems are further compounded by a low level of management.

The lack of adequate rural planning and fixed agricultural policies has led to a low level of government investment in the agricultural sector and mining areas. Thus, there has been an insufficient development of basic infrastructures including housing, electrification, transportation, and communication in these areas. This lack of infrastructure, coupled with the lack of fixed policies particularly for processing and marketing agricultural products, has kept the private sector from making investments in villages and agricultural areas. The lack of infrastructure, and private sector investment in agricultural and mining areas has, in turn, made it difficult to recruit qualified Jordanian workers willing to work in remote areas.

As the data presented above would tend to suggest, industrial investments have been heavily concentrated in the Amman Governorate. While this has stimulated the growing disparities between this region and areas outside the capital, this problem has been compounded by the infusion of private sector investment to provide services to the industrial and commercial enterprises in the area and the population they support. It has been noted that previous development plans were implemented with little coordination between different departments, and that this resulted in "development regions" receiving attention within regions of the country leading to an even more unequal distribution of the development effort.

These basic structural contingencies impact the socio-economic level of living and quality of life for different groups and persons living in different areas of the country. The lack of schools in rural, remote, and many low income areas has kept illiteracy rates, particularly among women, unacceptably high. Where schools do exist, they are frequently equipped with no or inadequate facilities such as laboratories, libraries, outer walls, playgrounds, and restrooms. Similarly, health education programmes and facilities are lacking in rural and more remote areas, and because of the lack of transportation infrastructures, those which do exist in more populated centers are inaccessible to persons

in rural and remote areas. The same thing can be said for access to cultural facilities as well as facilities used for sport and youth activities. There are also acute housing shortages, particularly for limited and low income persons, which reflects previous imbalances in the distribution of investments in housing.

These problems are particularly acute for women who frequently lack access to family planning and child health centers, and who cannot work because of a lack of nurseries and day-care centers. For rural women there is a need to promote household management and low level production-oriented skills to enhance their income potential, but there is an acute shortage of women's organizations capable of rendering the needed programmes which could promote traditional trades and handicraft industries. Affecting the rural population more generally is the lack of an adequate distribution system for goods produced as well as an inadequate geographical distribution of public markets and large-scale distribution centers. Urban women, on the other hand, have greater access to employment opportunities, but frequently lack the support services to take advantage of this.

POPULATION DISTRIBUTION POLICY IN JORDAN

Although Jordan has one of the highest population growth rates in the world, it has no explicit population policy. Population policy issues are indirectly addressed in the country's Five-Year Development Plans. In order to identify these and understand the context within which they have been adopted it is important to consider a number of broader issues.

The current plan, for example, addresses the effects of population growth on health, education and labor supply, and sets an objective of increasing family planning services through the establishment of mother-child care centers. The Government's direct involvement in this programme has been limited, but the country has relied heavily on foreign assistance to implement the mother-child health care centers. The Government's limited involvement reflects the sensitivity of the issue which might best be approached indirectly through measures such as child-spacing programmes focused on the health of mothers and children. It is also felt that broader cultural, social, and economic changes occurring in the country will lead to reduced fertility over the long term.

The 1981-1985 Development Plan was comprehensive and centered on investments involving comparatively long construction periods for the productive sector. It also gave special attention to meeting basic human needs, narrowing disparities among regions, protecting the environment, and developing available natural resources. Investments totalling U.S. $10 billion were allocated among sectors in the following manner: 7 per cent to agriculture, 23 per cent to mining and industry, 15 per cent to water, 17 per cent to transportation, and 25 per cent to social services, including health, education, manpower development, and housing.

The 1986-1990 Development Plan continued to emphasize agriculture, but did this within a context of integrated regional development in rural areas. The intent of this strategy was to narrow regional income disparities by enhancing the earnings potential of

a high proportion of the low-income rural population. In real terms per capita income within the country has increased substantially in recent years. Gross domestic product had an annual average increase of about seven per cent from the period 1980 - 1984 raising per capita income from about U. S. $1,600 in 1981 to U. S. $1,800 in 1984.

Remittances from Jordanian workers abroad have played a major role in improving the country's balance of payments. Documented remittances, for example, reached nearly one billion U. S. dollars in 1983, and it is estimated that undocumented remittances may be as much as one-third this amount. In other words, documented and undocumented remittances may amount to as much as 260 per cent of the country's commodity exports, and obviously play a major part in its economy.

Labor emigration and immigration are main manpower issues for the country. Although there are no reliable statistics on the number of Jordanians working abroad official estimates suggest that the number may be more than 325 thousand, and it is expected that most of these are either highly skilled or skilled creating serious shortages in some specialized occupations. To fill the void created by this exodus Arab and non-Arab workers have been entering the country (more than 140,000), but most of these are either semi-skilled or unskilled workers engaged in the agricultural or construction sectors. Thus, on balance the country is having the skill level of its work force reduced, and at the same time competition for lower skilled positions is being increased. In response to this situation the Ministry of Labor has restricted the movement of expatriates and limited their employment to situations where Jordanian counterparts cannot be found (Samha, 1984).

Within the context of these constraints we can identify a number of elements in the 1986 - 1990 Development Plan which are likely to influence population distribution within the country. We begin by identifying the population distribution related goals contained in the plan, and then consider some of the measures suggested in the plan to facilitate meeting these goals.

Goals: The 1986-1990 Development Plan contains a number of goals which are likely to influence population distribution within the country. The most direct of these is the formulation of a population policy intended to influence growth rates, population distribution and structure and characteristics of the labor market. This will also involve specification of immigration and emigration policy to effect greater control over and bring a balance to labor migration to increase job opportunities for Jordanian workers and regulate the migration of Jordanian workers moving abroad.

Less direct goals of the plan likely to influence population distribution within the country are those related to the provision of various services, the development of infrastructure, and the closing of gaps between the larger urban centers, smaller urban areas, and rural areas. One goal of the plan, for example, is to enhance public health by providing integrated primary health care including access to general practitioners, preventive immunization, and mother and child care to all individuals. The plan also sets the goal of enacting legislation to extend health insurance to the entire population and the development of a plan which will upgrade hospitals and bring about a better

distribution of hospital beds among the various governorates. The goal in this sense is to provide at least 20 beds per 10,000 population in each governorate.

The plan also seeks to raise the level of educational attendance throughout the country. With respect to compulsory education the plan specifies that enrollment should be increased from 90 to 94 per cent, and in the case of higher educational institutions the plan suggests that a better regional distribution of institutions is needed. Other goals within the plan are also designed to reduce the gaps between larger urban centers, smaller urban areas and rural areas. These include a more equitable distribution of development projects in order to ensure a more equitable distribution of development gains and a more equitable distribution of religious institutions, recreation facilities, and supply services across governorates as well as a social security programme intended to secure income for needy families.

The plan also seeks to upgrade the revenue generating capacity of local councils by directing productive projects toward smaller cities and villages. To help meet this goal the plan specifies that the lending capacity of the city and village development banks should be enhanced. It is expected that migration from villages and smaller municipalities to cities can be curtailed by up-grading public services and providing more job opportunities. The plan also specifies the up-grading of telephone and postal services to rural areas and smaller municipalities.

Instruments to Influence Population Redistribution: The five year plan contains a number of instruments to facilitate meeting the goals outlined above. Social education and development information programmes have been intensified in rural, urban, and badia regions of the country because many of the instruments established in the plan involve the active participation of Jordanian citizens and informal voluntary as well as formal organizations. This appears particularly so for the instruments which involve reducing regional and urban-rural disparities. For example, families engaged in food production in rural areas and the Badia can receive soft loans from community based projects for socio-economic development which, in turn, receive their financial support from the central government. Similarly, support is available for voluntary youth groups in rural areas to encourage their participation in projects designed for their local area. Voluntary groups in thinly populated areas interested in establishing educational or rehabilitational facilities for the handicapped can receive 25 per cent of the costs of such projects.

The plan also targets the integration of women into the development effort. Financial and technical support has been provided to the Union of Jordanian Women to enable this organization to promote the role and contribution of women and their capabilities into the socio-economic development of the country. This, in part, is accomplished by expanding the representation of women on a number of key boards and councils (the Vocational Training Corporation and the Social Security Corporation) as well as municipal and village councils. Health, nutrition, home management, and family planning programmes for women are being integrated into training programmes in rural areas on modern agricultural techniques, household gardening, and food processing. This will facilitate not only enhancing the income of rural households but it will also help to reduce regional differences in the level of living between urban and rural areas.

Counseling centers for women with appropriate child care facilities have been set up in rural areas to maximize participation in these training programmes. Finally, to help ensure that these training programmes become productive, loans have been made available for the establishment of cottage industries related to food production.

Also to reduce regional and urban-rural disparities the plan contains a number of instruments intended to enhance the quality of life of the youth of Jordan. Priority here has been placed on instruments to prevent young people from becoming involved in illegal activities and encouraging their participation in wholesome and development activities. Municipality and village councils are required to allocate land for public sports facilities, youth centers and clubs. The administrative structure of the Ministry of Youth has been reorganized, and its staff upgraded and expanded to establish directorates in each of the governorates. Legislation on youth and sports activities has been enacted to regulate the relationships between the various agencies and governing boards of sport, clubs, and youth centers.

Private sector schools are being encouraged in populated areas, but the government is establishing schools in all population clusters where there are ten or more children of school age, and school nutrition services are being offered in all rural areas. Various formal and informal organizations are being encouraged to set up kindergartens and day care centers in areas where these have been lacking. New schools and educational facilities are being constructed with the mandate that this be done taking account of an equitable regional distribution. To facilitate construction models of moderately priced buildings have been developed which conform to regional requirements and which can serve a variety of purposes. To encourage more individuals to become teachers there has been an expansion of the staff housing programme providing loans to teachers and increasing credit extended through the Teachers' Social Security Fund.

A Government body has been established to coordinate urban development projects throughout the Kingdom. Urban development projects will be implemented by this body taking into account area differences in opportunities for training and participation by the population. To stimulate housing in particular, the plan has specified simplified procedures for land acquisition for public housing projects. Master plans are to be developed for all population clusters and integrated with the comprehensive regional plans. The scope of the joint services councils is to be expanded so that each development unit will have its own council. Emphasis is also placed on the establishment of a large number of productive enterprises to offset the existing dominance of service industries. Industrial estates with the necessary infrastructure are being established in the regions of such places as Irbid, Salt, and Aqaba to ensure the distribution of productive enterprises across different areas.

High priority has been placed on the development of rural areas and on the integration of these with the urban core of the country. Domestic mail routes have been expanded to link towns and villages, and the share of total government investment in agriculture has been increased and better distributed among agricultural areas. To ensure implementation of agricultural projects, and provide the necessary infrastructure for these agricultural development has been integrated with comprehensive rural development. A comprehensive survey of agricultural land has been undertaken, and on the basis of the

characteristics of land ecological zones have been demarcated so rational priorities of land use and the necessary legislation to enforce use can be established.

CONCLUSION

The pattern of population redistribution and the relatively high growth rate within Jordan have been influenced by factors and events external to the country as well as factors internal to the country. The influx of refugees and forced migrants has had a major impact on the country's growth and the emergent pattern of population redistribution as has the constriction of national boundaries. The dominant characteristics of the urbanization process have been the increased concentration of population in Amman, and the decentralization of population to areas around Amman. Both of these processes have helped to solidify the dominant role of the greater Amman metropolitan area in the urban system of Jordan. Urban to urban and rural to urban migration associated with regional disparities in infrastructure and socio-economic differences have substantially contributed to the enhanced position of Amman.

The various development plans put in place by the government have significantly improved the quality of life in the country. The number of schools increased from only 958 in 1952 to 3,065 in 1985. Along with growth in the number of schools has come an upgrading in school facilities and the quality of the curriculum. In 1952 there were only 46 health centers and village clinics, but by 1985 the number had increased to 420, 230 of which were village clinics. Similarly impressive is the fact that there was only one mother-child care center in Amman in 1952 and 101 by 1985. Over this same period the number of hospitals increased from 29 to 53, and the number of hospital beds from 1,994 to 4,921. Sharp gains have also been made in supplying basic water and electrical service to the population; by 1985 96 per cent of the population was served by the water networks, and some 93 per cent of the population was being supplied with electrical power.

Despite these gains regional and rural-urban disparities persist. These, in turn, have helped to foster continued migration toward the greater Amman area. The lack of an infrastructure capable of supporting broad based economic development outside of the greater Amman area coupled with the concentration of regional commercial and financial institutions as well as national government functions in Amman have inhibited employment opportunities elsewhere and concentrated development of the service sector. In addition to directing internal migration toward the Amman region these developments have led many skilled Jordanians to seek employment outside the country.

Although the Government of Jordan does not have an official explicit population policy, and therefore, no specific population redistribution policy, it is obvious from the information presented above that the government clearly realizes the link between population variables and socio-economic development. The Five-Year Plan reviewed in this paper makes this point abundantly clear; indeed, that plan's call for drafting a comprehensive population policy aimed at influencing demographic trends explicitly makes this point. In addition, this plan contains a number of goals and instruments designed to influence the growth, distribution, and composition of population which, in turn, are intended to enhance development.

One implicit goal of the plan is to lower the growth rate of the country and raise the population's general level of health. The government believes that the population growth rate of the country will decline as the level of fertility reduces in response to cultural and social changes already underway. A number of these changes will be influenced by instruments outlined in the plan although this is not explicitly acknowledged in the plan. For example, under the plan day care facilities are to be increased in urban areas, and this is likely to enhance opportunities for women in the wage sector. Likewise those programmes to enhance women's income opportunities in rural areas will help to bring about changes likely to reduce fertility. This goal will also be facilitated, however, as will the general level of health be improved, through the addition of more mother and child health facilities which provide family planning services.

Reducing regional and rural-urban disparities in social development, manpower, and infrastructure is another goal likely to influence population distribution. As we have seen here the plan is fairly comprehensive covering a broad array of specific factors ranging from reducing income disparities to the provision of health insurance and social security benefits to all segments of the population on the social dimension, and from increasing housing, health care, and educational facilities to expanding communication and other basic services on the infrastructure dimension. A broad array of instruments has also been included in the plan to help meet the stated goals. These include everything from enhancing the income potential of rural women through informal non-school educational programmes and subsidizing some activities of governmental and non-governmental organizations to streamlining land acquisition processes for construction projects and reorganizing the structure and responsibilities of some government offices.

In short, the plan contains ample evidence that the government does recognize the inter-relationship between population variables and socio-economic development. Nevertheless, it is important to remember that the government has not acknowledged through the formulation of an explicit population policy. It does appear, however, that this inter-relationship may happen in the near future, and when it does it will be increasingly important for the government and those charged with the responsibility for collecting and processing statistics to take steps to ensure that the country's statistical system will allow a full and continuous monitoring of population trends and an evaluation of programmes intended to influence them. It will be advisable for the government to develop a clear definition of urban, one that will be suitable for use over a protracted period of time. Similarly, it will facilitate programme planning and evaluation if there is some coordination of definitions across agencies collecting and processing different statistics and those agencies charged with the responsibility of policy development and programme planning. This will help to ensure that the reporting units for statistics are comparable, and that they conform with the boundaries likely to be used by planners and policy makers in developing their programme plans.

Moreover, in this sense it is also important to note that population redistribution monitoring, policy and programme development, and the evaluation of programmes intended to influence population redistribution, are dependent upon detailed data being available for meaningful sub-national disaggregations. Adequate social and economic planning will require sub-national projections of the populations in various areas and their

characteristics, and this will, in turn, require knowledge of trends in fertility, mortality, and migration and the major determinants of these in recent years. A detailed discussion of the differential growth rates among governorates and their components can be found in Samha (1989).

TABLE (1)

POPULATION DISTRIBUTION IN THE GOVERNORATES OF THE EAST BANK

Governorate	Population in 1952 Housing Census	%	Population in 1961 Census	%	Population in 1979 Census	%	Population in 1985 Estimates	%
AMMAN	214,143	36.5	433,608	48.1	1,151,939	54.8	1,504,200	55.8
IRBID	215,844	36.8	273,976	30.4	602,214	28.7	752,170	27.9
BALQA	67,103	11.4	79,057	8.8	146,406	7.0	187,230	7.0
KARAK	60,498	10.3	67,211	7.5	125,052	6.0	156,100	5.8
MA'AN	29,297	5.0	46,914	5.2	74,408	3.5	94,000	3.5
	586,885	100.0	900,776	100.0	2,100,019	100.0	2,693,700	100.0

Source: Department of Statistics a) 1952 Housing Census. b) 1961 Housing and Population Census. c) 1979 Housing and Population Census d) 1985 Population Estimates.

TABLE (2)

THE DISTRIBUTION OF POPULATION IN THE GOVERNORATES OF EAST BANK BY URBAN AND RURAL. 1952, 1961, 1979 AND 1985.

Governorate	PATTERN	Population in 1952	%	Population in 1961	%	Population in 1979	%	Population in 1985	%
AMMAN	TOTAL	214,143	100	433,608	100	1,151,939	100	1,504,200	100
	URBAN	148,345	69.3	359,984	83.0	988,354	85.8	1,233,360	82.0
	RURAL	65,798	30.7	73,624	17.0	163,585	14.2	270,840	18.0
IRBID	TOTAL	215,844	100	273,976	100	602,214	100	752,170	100
	URBAN	43,077	20.0	74,164	27.1	193,565	32.1	245,220	32.6
	RURAL	172,767	80.0	199,812	72.1	408,649	67.9	506,950	67.4
BALQA	TOTAL	67,103	100	79,057	100	146,406	100	187,230	100
	URBAN	15,478	23.1	16,177	20.5	36,521	24.9	45,715	24.4
	RURAL	51,625	76.9	62,880	79.5	109,885	75.1	141,515	75.6
KARAK	TOTAL	60,498	100	67,211	100	125,052	100	156,100	100
	URBAN	14,127	23.4	11,928	17.7	36,091	28.9	49,690	31.8
	RURAL	46,371	76.6	55,283	82.3	88,961	71.1	106,410	68.2
MA'AN	TOTAL	29,297	100	46,914	100	74,408	100	94,000	100
	URBAN	7,344	25.1	15,551	33.1	42,904	57.7	56,636	60.3
	RURAL	21,953	74.9	31,363	66.9	31,504	42.3	37,364	39.7
EAST BANK	TOTAL	586,885	100	900,776	100	2,100,019	100	2,693,700	100
	URBAN	228,371	38.9	477,804	53.0	1,297,435	61.8	1,630,621	60.5
	RURAL	358,514	61.1	422,972	47.0	802,584	38.2	1,063,079	39.5

Source: Department of Statistics a) 1952 Housing Census. b) 1961 Housing and Population Census. c) 1979 Housing and Population Census d) 1985 Population Estimates.

TABLE (3)

PER CENT CHANGE IN PER CENT URBAN AND ELDRIDGE INDEX BY GOVERNORATES FOR JORDAN: 1952 - 1985

Governorate	Per cent Change*			** Eldridge Index		
	52-61	61-79	79-85	52-61	61-79	79-85
AMMAN	19.77	3.37	-4.43	44.63	16.47	-26.76
IRBID	35.5	18.45	1.56	8.88	6.86	0.74
BALQA	-11.26	21.46	-2.01	-3.38	5.53	-0.67
KARAK	-24.36	63.28	10.03	-7.44	13.61	4.08
MA'AN	31.87	74.32	4.51	10.68	36.77	6.15
EAST BANK	36.25	16.60	-2.10	23.08	18.72	-3.40

Source: Department of Statistics, 1952,1961, 1979. Population Censuses and 1985 Population Estimates
Percentage and Index calculated by the author

* Per cent change in Per cent Urban = $\frac{Ut - Uo}{Uo} \times 100$

** Eldridge Index = $\frac{Ut - Uo}{100 - Uo} \times 100$

- Uo and Ut refer to the per cent of Urban Population in the previous and recent censuses respectively.

TABLE (4)

POPULATION GROWTH IN THE GOVERNORATES OF THE EAST BANK OF JORDAN BY RESIDENTIAL PATTERN

Governorate	Annual Growth Rate %					
	1952 - 1961 AGR*	Ratio**	1961 - 1979 AGR	Ratio	1979 - 1985 AGR	Ratio
AMMAN						
TOTAL	8.15		5.58		4.55	
URBAN	10.08	8.2	5.61	1.3	3.76	0.4
RURAL	1.26		4.54		8.77	
IRBID						
TOTAL	2.69		4.47		3.78	
URBAN	6.22	3.8	5.33	1.4	4.02	1.1
RURAL	1.63		4.05		3.66	
BALQA						
TOTAL	1.84		3.48		4.18	
URBAN	0.49	0.2	4.52	2.5	5.33-	1.2-
RURAL	2.22		3.15		4.31	
KARAK						
TOTAL	1.18		3.51		3.77	
URBAN	1.86-	0.9	6.15	2.4	5.47	1.8
RURAL	1.97		2.68		3.03	
MA'AN						
TOTAL	5.37		2.60		3.97	
URBAN	8.69	2.2	5.64	2.90	4.74	1.6
RURAL	4.04		0.02		2.88	
EAST BANK						
TOTAL	4.88		4.81		4.24	
URBAN	8.35	4.6	5.71	1.6	3.88	0.8
RURAL	1.85		3.62		4.80	

* Annual Growth Rate.
** Ratio of Urban growth rate to Rural growth rate.

Source of Basic Data: (See Table 1 & 2)

TABLE (5)

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

City	1/ Annual growth rate % 1952-1961	Net Annual growth rate % due to migration 1952-1961	2/ Annual growth rate % 1961-1979	Net annual growth rate % due to migration 1961-1979
Amman	9.14	5.94	5.43	1.63
Sweileh**	4.43	1.23	10.14	6.34
Wadi Al-Seer**	1.47	-1.73	9.47	5.67
Zarqa	13.54	10.34	4.49	0.69
Russeifa*	22.75	19.55	11.56	7.76
Madaba	3.03	-0.17	5.18	1.38
Irbid	7.30	4.10	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 Al-Shamaliya**	0.77	-2.43	4.55	0.75
Salt	0.14	-3.06	3.94	0.14
Deir Alla**	-3.52	-6.72	0.28	3.52
Shuna Al-Janoubiya*	0.63	-2.57	4.43	0.63
Karak	-1.22	-4.42	2.58	-1.22
Qasr**	0.15	-3.05	3.95	0.15
Mazar**	1.61	-1.59	5.41	1.61
Ghor Al Safi**	-0.72	-3.92	3.08	-0.72
Tafila	1.87	-1.33	5.67	1.87
Ma'an	-0.84	-4.04	2.96	-1.84
Wadi Musa	7.05	3.85	10.85	7.05
Aqaba	2.36	0.84	6.16	2.36
Shobak	15.88	12.68	8.12	4.32

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

*Not classified as Urban Center in 1952 and 1961.

** Not classified as Urban Center in 1952.

1/ Rate of natural increase 3.2%

2/ Rate of natural increase 3.8%

REFERENCE

Abdel-Jaber, T., and Saket, B. 1981. "The Population Strategy in the Arab World". Al-Amal, no. 11 and 12, Ministry of Labour, pp. 5-24.

Abu-Esh-Sha'ar, S., and Banawi, H. 1982. Remittances of Jordanian Abroad. Central Bank of Jordan.

El-Asad, S., and Khalifa, A. 1977. "Fertility Estimates and Differentials in Jordan 1972-1976". Population Bulletin of ESCWA, no. 12.

Birks, J., and Sinclair, C. 1978. International Migration Project: Country Case Study. The Hashemite Kingdom of Jordan. Geneva: International Labour Office.

Buhairy, S. 1973. The Geography of Jordan. Amman: Al-Sharq Library, (In Arabic).

Ettema, W. 1970. "Female Fertility in Jordan: A Statistical Analysis". Tijdschrift Voor Economische en Sociale Geographie, vol. 61, no. 4, pp. 195-206.

Findlay, A., and Samha, M. 1985. "The Impact of International Migration on the Urban Structure of Amman", Espace-Population-Societies, no. 1, pp. 93-98.

_____. 1986. "Return Migration and Urban Change: A Jordan Case Study". In Return Migration and Regional Economic Problems. Russel King (Edt.), London: Crom Helm.

Hindle, P. 1964. "The Population of the Hashemite Kingdom of Jordan 1961". Geographical Journal, vol. 130, pp. 281-264.

Jordan, Department of Statistics. 1953. 1952 Housing Census. Amman.

_____. 1964. Housing and Population Census of 1961. Amman.

_____. 1983. Housing and Population Census of 1979. East Bank.

_____. 1967. Population Census and Internal Migration for Amman, Jerusalem, Zarqa, Russeifa, Irbid and Aqaba.

_____. 1985 Population Estimates.

Jordan, Ministry of Planning: 1973-1975 Development Plan.

_____. 1976 - 1980 Development Plan.

_____. 1981 - 1985 Development Plan.

_____. 1986 - 1990 Development Plan.

Kawabe, H. 1973 "Some Aspects of Migration to Amman". In: Urbanization and Migration in Some Arab and African Countries, Research Monograph Series, no. 4 Cairo: Cairo Demographic Center, pp. 265-278.

Rizk, H. 1972. Human Fertility in Jordan. Amman: Department of Statistics.

Samha, M. Forthcoming. Measurement of Internal Migration in Jordan Based on National Population Growth and Vital Statistics Methods.

_____. 1980. "Migration of Refugees and Non-Refugees to Amman 1948-1977". Population Bulletin of ESCWA, no. 19, pp. 47-67.

_____. 1979. Migration to Amman: Patterns of Movement and Population Structure. Unpublished Ph.D. dissertation. England: Durham University.

_____. 1984. "Replacement Migration in Jordan". Dirasat. (Amman: University of Jordan). Vol. 11, no. 1, pp. 123-154.

UNRWA (United Nations Relief and Work Agency for the Palestinian Refugees). 1980. Statistical Bulletin, no. 2, Amman.

Wander, H. 1966. Analysis of the Population Statistics of Jordan. Amman: Department of Statistics.

Wardwell, J. 1986. "Jordan: A Demographic Anomaly?". Population Association of America, Annual Meeting, San Francisco. April 1986.

The World Bank. 1984. Manpower Development in Jordan, vol. 1.

Population Spatial Distribution Policies in Kuwait

Mostafa H.El-Shalakani[*]

Amal Y.A.Al-Sabah[**]

[*] *Department of Statistics, Kuwait University.*

[**] *Department of Geography, Kuwait University.*

INTRODUCTION

Kuwait is located in West Asia, and is bordered by three powers of the Gulf region: Saudi Arabia, Iraq and Iran. The area now constituting Kuwait began to be settled about 200 years ago. Historical evidence of civilization in some parts of the country, such as Failaka Islands, dates to the period of Alexander the Great (356 - 323 B. C.). The recent settlers comprised persons from adjoining regions now known as Saudi Arabia, Iran and Iraq. These settlers derived their livelihood primarily from pearl diving, trade, and dhow building. Kuwait was a British protectorate until independence in 1962.

Today it has a labour-short economy with a large capital surplus derived primarily from its vast reserves of hydrocarbons. Kuwait ranks third after Saudi Arabia and the Commonwealth of Independent States in known oil reserves. Starting from a point of nearly exclusive dependence on oil revenues the government has used the capital from oil reserves wisely, and developed the nucleus of a modern economy. The country has a well developed physical infrastructure, a modest industrial base, and an extensive network of financial institutions capable of supporting its expanding role as an international financial center. With the expansion of its non-oil income base progress has been made in organizing the elements of a welfare state with free social services, subsidies for food, electricity, water, and housing with full employment to significantly raise the quality of life of the country's citizens. The steady progress on these fronts was temporarily frozen by the Iraqi incursion and the resulting devastation of 1991. The government has vowed that these events will not bring a halt to progress or stop its plans developed before these events occurred, and indeed, reconstruction has already begun. Thus, while there will be some delays in meeting some development plans, one can expect that the general objectives set out prior to the events of 1991 will be followed.

Finally, it is important to view the discussion below with full awareness of the small size and limited resources of the country. Kuwait is small geographically; its total land area is no more than about 18,000 square kilometers, and equally important, the vast majority of this is desert nonarable land containing no other natural resource than oil. In short, it is important to bear in mind that Kuwait's small land area and limited human and natural resources give it certain development advantages, but also place constraints on the alternatives available.

THE GROWTH AND COMPOSITION OF THE NATIONAL POPULATION

Total Population Change and Its Components: In 1907 the population of Kuwait was estimated at about 35,000; by 1930 it is believed to have increased to around 60,000, the vast majority of whom lived in Kuwait City. The country never possessed a rural agricultural population, and prior to 1950 it is believed that nearly all of the increase in population can be attributed to the migration of people into the country. By the mid 1940's the population reached about 100,000. Although Kuwait's population remains relatively small today, it has been growing at an unusually high rate since the discovery of oil in the late 1940's. With this discovery came the expansion of Kuwait City, and its service facilities and personal prosperity rose through the disbursement of public money

to Kuwaiti citizens. It was during this period that there was a marked increase in immigration. Thus, by 1952 the population had surpassed 160,000, and over the next ten years (to the year of Independence) the population more than doubled passing 322,000 in 1961.

Since Independence population growth has continued at a high, but declining, rate. During the 1960's the growth rate was around nine per cent per annum, declining to about 6 per cent during the 1970's and to 4.5 per cent during the first half of the 1980's (see Table 1). Thus, between 1962 and 1985 the population increased by a factor of five reaching more than 1,697 million by the latter date. Table 1 shows the enumerated population of the country for each Census by citizenship from 1957 through 1985 (the latest available data). These data make the uniqueness of Kuwait's population and its growth clearly stand out. Over the whole period the Kuwaiti population increased by a factor of about six while the non-Kuwaiti population increased by a factor of nearly eleven. Thus, over the period the ratio of Kuwaiti to non-Kuwaiti persons changed from 1.22 to only .67. The high growth rates of both populations can be traced in Table 2.

Major Factors Influencing Population Growth: Four factors appear to have influenced the growth of the Kuwaiti population. First, the fertility of the Kuwaiti population has been declining largely as a result of a rise in the age at marriage and a decline in the proportion of married women in the younger ages, but remains high at about 46 births per 1,000 inhabitants. Second, since the 1960's, and as a result of the government's efforts to improve the standard of living and raise nutrition levels, sanitary conditions, and the availability and quality of health care, the mortality rate among Kuwaitis has declined significantly to an estimate of six deaths per 1,000 inhabitants by the last period.

A third factor contributing to the growth in the Kuwaiti population has been the re-classification of the desert Bedouin population, and to a lesser extent the naturalization of other persons. A policy of granting nationality status to the Bedouin population was pursued simultaneously with the large inflow of foreign workers. The granting of full citizenship to the nomadic population of intermediate nationality and origin was an important factor contributing to the high growth during the period from 1957 through 1975. Nearly 30,000 naturalization permits were issued from 1970 to 1975, mostly to Bedouins (Hill, 1977). For more recent years there is also evidence to suggest that naturalization continues to contribute significantly to growth in the Kuwaiti population. In 1980, 10,171 permits were issued, and by 1984 this number had increased to 13,046 (CSO, 1986).

Finally, counts of the Kuwaiti population have improved in quality over time. According to the 1980 Census the rate of growth for the Kuwaiti population dropped to only 3.7 per cent per annum. While some drop in growth was expected, a decline of this magnitude was not. It is now expected that improvements in the quality of both the 1980 and 1985 Census counts help to explain the lower growth rates reported for the last two census intervals. That is, it appears that in the past some persons claimed Kuwaiti citizenship who, in fact, did not have it, and that requiring evidence of citizenship in the last two censuses resulted in more accurate counts of the Kuwaiti population.

The Role of International Migration: The rapid increase of the Kuwaiti population, however, was out stripped by the even more rapid increase in the non-Kuwaiti population. The expatriate population increased from 92,851 in 1957 to 1,016,013 in 1985 or by a staggering 990 per cent. This pace of change over the entire period was nearly double the pace of change (499 per cent) in the Kuwaiti population. The immigration of non-Kuwaitis into Kuwait played a far greater role in this growth than did the natural change occurring to the non-Kuwaiti population. The average annual growth rate of the non-Kuwaiti population for the period 1957 - 1970 exceeded ten per cent, and although it declined and fluctuated following 1970 (see Table 2) it still exceeded 6.5 per cent over the period from 1970 - 1985.

By 1957 the non-Kuwaiti population already comprised nearly 45 per cent of the total population, and by 1961 non-Kuwaitis made-up nearly half of the population living in the country (see Table 1). The ratio of non-Kuwaitis to Kuwaitis stabilized over the next ten years at about 53 per cent, but then began to increase again reaching nearly 60 per cent by 1985. Although the government was concerned about the population-balance issue, the increase following 1975 was related to attempts to accelerate the pace of investment and broaden the economic structure of the country.

The large immigration into the country has been influenced by factors and conditions internal as well as external to Kuwait. Internally, the most basic factor has been the lack of manpower in an expanding economy. In Kuwait as in some other Gulf states, the labor market has moved through successive phases. In the traditional pre-oil economy the supply of national manpower was limited quantitatively and qualitatively, but so too was the demand. With the discovery of oil and the need to develop a modern economy the balance between supply at the national level and demand was upset, and the need for foreign labor arose.

It is important to realize that this need can occur within a context of concern on the part of many nationals. Where a growing proportion of immigrants share neither language nor religion with the host country, issues can arise between economic forces, which require more migrant labor and political forces which are concerned over the loss of national culture and identity (Birks and Sinclair, 1982). These concerns have surfaced in Kuwait.

Although Kuwait was experiencing international labor migration as early as the 1950's, it was not until the early 1960's when oil revenues began to increase rapidly that the flow of workers increased significantly. After 1973 the pace of economic development was accelerated, and with this came an expansion of the government sector, ambitious industrial development programmes, rapid expansion of physical infrastructures, and an ever increasing standard of welfare and income, adding greater diversity to both the economic and social structure. With only a small population, Kuwait had to turn to the importation of migrant workers on a larger scale, and it did this by providing easy access to its labour market.

The ease of access provided to the Kuwaiti labour market was well suited for potential migrants from the labour exporting countries where adverse economic conditions and low wages created large pools of surplus labour. Also contributing to the flows were

political factors external to Kuwait. The proclaiming of Israel as a State, and the related events of this situation led many Palestinians and Jordanians to seek refuge in Kuwait; indeed, by 1970 these two groups constituted 38 per cent of all the foreign population. Similarly, the Independence of India in 1947 came while Kuwait was beginning to first be influenced by expanding oil revenues, and it attracted labourers from the conflicts over this event (Grill, 1984). These early immigrations have influenced the sources of immigration over time so that flows have tended to be dominated by persons from surrounding Arab countries and the less wealthy countries of Southeast Asia. Data in Table 3 show that since 1975 these two sources have made-up about 98 per cent of all foreign persons in Kuwait. Over this period, however, there has been a clear trend for the proportion of persons from Arab countries to decrease dramatically (from 80 to 63 per cent) as the proportion of persons from Asian countries has increased (from 19 to 35 per cent) sharply.

The National Labour Force: The implications of this migration for the Kuwaiti labour force are reflected in the data in Table 4. Nearly 40 per cent of the population in the country was in the labour force in 1985, and over 81 per cent of the labour force was composed of non-Kuwaitis. Crude activity rates are high (53.5) among non-Kuwaitis compared to Kuwaitis (18.6), and this is a function of several things. Activity rates among non-Kuwaitis are nearly 100 per cent in the ages 25 - 59 because expatriate males can only remain in the country if they are participating in economic activity. Second, although labour force participation among Kuwaiti women is increasing as the age at marriage and education levels of women are increasing and their fertility is decreasing, female labour force participation remains relatively low (Al-Moosa and Mclachlan, 1985). Shah and Al-Omaim (1988) report that in 1985 there were 24,803 Kuwaiti women economically active, about 19 per cent of the female labour force. Third, although there is evidence to suggest that non-Kuwaitis are substituting rather than supplementing the labour of nationals, the limited skills of some Kuwaitis can not meet the demands for skilled labour positions (Al-Sabah, 1989).

The labour market of Kuwait has expanded, and shows all signs of continuing in this direction. The total labour requirement in 1985 was estimated to have been 662,588, and this rose to 688,446 by 1988, an overall increase of 3.9 per cent and an annual compounded rate of 12.9 per cent (CSO, 1988). Some 93 per cent of this increased labour requirement has been filled by Kuwaitis. Excluding labour in the oil and international sector, about 50 per cent of all jobs are in government service. The per cent of government jobs, however, has been declining as other sectors of the economy have been expanding. In part, the Government has used public employment as a social measure so that the bulk of the Kuwaiti labour force is absorbed in this sector. The next largest sector is construction (19.6 per cent) followed by trade (11.6 per cent). Each of these sectors has been expanding as responses to attempts to diversify and modernize the economy.

LEVELS AND TRENDS OF URBANIZATION

Level of Urbanization: Administratively, Kuwait is divided into four governorates, and these, in turn, are subdivided into localities. More than 55 per cent of the country's population is concentrated in the governorate of Hawalli, and the majority

of these residents are non-Kuwaiti. The total number of localities identified in the 1985 Census was 58. The size of each governorate and locality as defined in 1970 and 1985 are reported in Table 5. These data indicate that the country is highly urban. Using the criteria suggested by ESCWA (1987) about 90 per cent of the population can be considered urban (they lived in localities of 10,000 or more inhabitants), and some 82 per cent lived in places of 20,000 or more.

Very few of the country's localities are not urban. Using the 10,000 criteria (by 1985) all localities within the Jahra Governorate were urban, nine of the 14 localities within Ahmadi Governorate were urban, 17 of the 25 localities in Hawalli Governorate were urban, as were six of the 14 localities in the Capital Governorate. In short, by 1985 over 65 per cent of the localities in each of the governorates were urban except in the Capital Governorate where this figure dropped to 43 per cent. One governorate, Jahra, had all of its population living in urban governorates. Two other governorates, Hawalli and Ahmadi, had nearly 95 per cent of their populations living in urban localities, and even the least urban governorate, the Capital, had nearly 75 per cent of its residents living in urban localities by 1985. Shah and Al-Omaim (1988) have estimated the overall level of urbanization in 1986 as 98 per cent, but they defined the urban population as all persons living in the Capital and Hawalli Governorates plus those persons living in localities of 10,000 or more in the remaining governorates.

Recent Trends in Urbanization: In Kuwait, as in many other countries, urbanization has occurred within the context of rapid population growth. Within this context urbanization and the spatial expansion of the urban population can be seen as adjustments to conditions created by this growth. For example, population density has increased substantially in the last few years, from just 44 persons per square kilometer in 1970, to 80 in 1980, and to 102 by 1985. Within a geographically small country such as Kuwait, changes of this magnitude necessitate adjustments to accommodate and organize population change. In Kuwait this accommodation has taken the form of growth and spatial expansion of the urban population by creating and developing new localities at the peripheries of previously existing urban centers. This continuous geographic expansion of urban areas creates some problems of data comparability over time.

Population Redistribution: Between 1970 and 1985 only the Capital Governorate decreased in size. Each of the remaining three governorates increased dramatically in size (see Table 5). Hawalli, the country's largest governorate in 1970, had the largest numerical increase in population, but the smallest relative increase (131 per cent). Jahra, the smallest governorate in 1970, had the second largest numerical increase, and by far the largest relative increase (436 per cent) in population size. The resulting redistribution of population over this relatively short period was substantial.

Ahmadi, which contained 12.3 per cent of the total population in 1970 had its per cent of the total population increase to 18.0 in 1985, and Jahra increased its per cent of the total population from just 7.2 in 1970 to 16.5 by 1985. Most of this redistribution between governorates occurred at the expense of the Capital Governorate which had its share of the total population decrease from 23.9 per cent in 1970 to 9.9 per cent in 1985. Hawalli, with a population approaching 950 thousand by 1985 had its share of the total population decrease slightly, but it still housed some 55 per cent of the total. Thus,

overall there has been a very large redistribution of population between the governorates, however, this has resulted in very little deconcentration of population away from the Hawalli Governorate, but there has been a notable convergence in the proportion of population in each of the other three governorates.

Data in Table 6 show that the pattern to this redistributional trend was different for the Kuwaiti and the non-Kuwaiti populations. The Kuwaiti population experienced a marked deconcentration away from both the Capital and Hawalli Governorates with a resulting more equitable distribution of population between Hawalli, Jahra, and Ahmadi. The non-Kuwaiti population, on the other hand, had its share of population in the Capital Governorate decrease with most of this decline resulting in an even greater concentration in the Hawalli Governorate. It is obvious that migration, internal as well as international, had to play a pivotal role in redistributing population in order for changes of this magnitude to have occurred in such a short period of time.

Table 5 also contains information showing population changes between 1970 and 1985 for individual localities. While these data are interesting in their own right, they are also useful in helping us to understand the inter-governorate redistribution of population mentioned above. For example, the decline in population of the Capital Governorate was primarily the result of a very sharp decline in the Kuwait City locality's population. This decline was stimulated by the government's programme of compensating and subsidizing Kuwaiti families to make property purchases and move into the surrounding suburbs. In fact, in both the Capital and Hawalli Governorates there is a marked tendency for the localities with the largest populations to have the smallest per cent of their population Kuwaiti, and for the per cent of the population which is Kuwaiti to have decreased notably over the 15 year period.

Nearly all localities showed increases in population size over the period observed. Of the 58 localities which existed in 1985, 43 existed in 1970, and all but five of these had population increases from the earliest to the latter date. (Data on the distribution of localities by density in 1980 and 1985 can be found in Table 8) The five localities which had population decreases were concentrated in two governorates (3 in Capital and 2 in Ahmadi). Of the localities experiencing growth, four had absolute population increases in excess of 75,000 (Jahra, 138,000; Salmiya, 86,000; Abrak Kheetan, 76,000; Jalib Shuwaikh, 76,000), and three of these were concentrated in the governorate of Hawalli while the locality with the largest absolute increase was in the governorate of Jahra. Four additional localities, one each in Jahra and Ahmadi and two in Hawalli) had absolute increases in population between 31,000 and 64,000.

Population Concentration: The extent to which growth was concentrated over this 15 year period is suggested by the fact that over 35 per cent of the total increase in Kuwait's population was accounted for by the increase in population in just those four localities with the largest increases. This per cent increases to nearly 55 if the growth in the eight localities with the largest increases is considered. That is, seven per cent of the country's localities absorbed 35 per cent of the population increase over the 15 year period from 1970 to 1985; alternatively nearly 55 per cent of the country's total increase was absorbed by just the 14 per cent of localities with the largest population increases.

While growth has been concentrated in this absolute sense, it is important to note that this does not mean that large relative increases in population were not occurring in other localities. For example, 22 localities had populations which increased by 75 per cent or more over the 15 year period, and 17 of these had populations which at least doubled. Moreover, localities showing these large relative increases could be found (in varying degrees) within all governorates.

Despite this concentration of growth, one can show using district level data for 1980 and 1985 that there is an emerging tendency toward deconcentration. Data in Table 7 confirm this potentially developing trend of deconcentration. Here we can see that three of four different indices (Arriaga, 1975, Ohadike and Tesfaghiorghis, 1975) , show a decreasing level of population concentration, but these also show its level to be relatively small (Al-Sabah, 1990). This trend, although surprising, is consistent with the government policy of creating and developing more new urban settlements. This trend has also been facilitated by the government's subsidies of housing for Kuwaitis, and increased efforts to enforce zoning restrictions. The extent to which the government can use the housing subsidy as an instrument to effect redistribution of population is suggested by the fact that, since 1953 the government has provided more than 48,500 units to Kuwaiti families of limited and average income (either directly or through the provision of long term interest free loans), and that this number has been sufficient to meet the housing needs of 40 per cent of all Kuwaiti households.

Finally, using the four city index (Davis, 1969) it can be shown that the level of primacy in Kuwait is relatively low compared to other countries in the region. In 1985 the four city index for Kuwait was 0.32 which rather strongly suggests that the country's urban structure is not dominated by a single place. Despite this, it is important to remember, as noted above, that in many respects Kuwait is a city state with nearly all of its population concentrated on a relatively small amount of land stretching along the coastal area around Kuwait Bay and along the Arabian Gulf.

Figure 1 and Table 8 show information on the population densities for Kuwait in 1980 and 1985. The pattern of these densities captures the growth and expansion of the population around Kuwait City and Hawalli, and how this expansion has fused many localities into a large metropolitan area. Thus, the signs of deconcentration noted above in recent years as well as the relatively low primacy, reflect and must be seen in the context of, the expansion of the metropolitan area. The growth and expansion of this larger area has been facilitated by the concentration of development activity within the city center, the government's housing programme, as well as the development of a modern highway and road system, utility projects, and leisure and recreation facilities.

The data in Tables 9, 10, 11, and 12 are presented to highlight the important role which the government has given to its housing programme, and the extent to which this is used to direct population growth and distribution among localities.

POPULATION SPATIAL DISTRIBUTION POLICY

Long Term Urban Growth Strategies and Goals: The development of a long term spatial distribution policy for Kuwait must take into account the country's high rate of

population growth, the absolute size of a population which can be sustained on the country's limited resource base, the balance between the Kuwaiti and non-Kuwaiti composition of population, and the concentration of population in the primate city. Taking these four factors into account the First Review of Kuwait Master Plan (KMPRI) of 1977 and the Second Review (KHPRZ) of 1983 proposed an urban growth strategy to guide development in Kuwait through 2005.

The government expects that by the year 2005 the population will reach 2.505 million, an 83 per cent increase over the 1980 population size. This represents a substantial slowing of growth compared to the previous 25 year period when the population increased by more than 550 per cent. While it is expected that part of the slowing of growth will occur because of reductions in the rate of growth of the Kuwati population, much of the reduction in growth is anticipated to occur through a reduction in the rate of change of the non-Kuwaiti population. In this sense the government has set a target of reducing the proportion of the population which is non-Kuwaiti from its 55 per cent level in 1980 to 42 per cent by the end of the plan period.

This shift will require a substantial Kuwaitization of the labour force, but it will also help to reduce the tensions being created by a culturally diverse immigrant population. Controlling the labour market imbalance is a high priority of the new development plan. While this will involve a Kuwaitization of the labour force there can also be no doubt that an important strategy here will have to be a rise in the per capita productivity of workers. The plan does stipulate that the participation of the Kuwaiti labour force increase at an average rate of 4.2 per cent as opposed to a 3.2 per cent average rate of increase in the non-Kuwaiti labour force. The plan also contains provisions which should increase the participation of all women in the labour force and programmes to intensify training to enhance productivity.

The plan also sets out a strategy for slowing growth of the primate city and redistributing population away from this single concentration. Internally a growth target of 2.081 million has been set for the metropolitan area. The plan calls for the retention of the structure of the area which includes development of land north of the Sixth Ring Road, as well as along the coastal corridor between Mishrif and Shuaiba, and at Jahra. Thus, although growth of the area will continue and the plan is to maintain the core of the area, the continued redirection of growth from the core will lead to continued decentralization of population toward the periphery.

The plan sets out a strategy of developing two new communities of substantial size as well as the development and growth of smaller rural settlements. Targets for the two new communities were first set at 250,000 (Subiya) and 115,000 (Khiran) by the end of the plan period. Originally, the plan stipulated that development of Al Khiran would lag the development of Subiya by ten years. This lag was proposed because it was expected that Subiya would be more difficult to develop (geographically, it is located outside the major development belt of the country) and to minimize competition between the two developments for basic economic activities and resources. Al-Khiran, lying within the development corridor, and being proximate to the existing metropolitan area, already has basic infrastructure such as electricity, fresh water, and high standard roads in place. It was also realized that the development of Subiya as an independent community would

be dependent upon the establishment of a viable employment base. Following the 1985 Census, however, a proposal was put forth to re-establish the target for Al Khiran at 400,000. Three new rural settlements (Abdaly, Wafra, and Shiqaya) are being established, and continued growth of the settlement on Failaka Island is being encouraged. Together, these settlements are expected to house only about 40,000 people, and therefore, will not significantly impact population distribution, but they will lead to greater population dispersion.

Along with redistributing the urban population, the plan's objective is to continue to provide a high level of public services. The standards proposed for community facilities are set out in detail in the Kuwait Master Plan (Bushanan, 1983). The range of amenities spelled out in this plan is comprehensive and includes housing, transportation systems, community centers and facilities, recreation and leisure facilities, as well as land for retail outlets and an expanding employment base. The plan further specifies that there should be efficient use of existing infrastructure and investments, and that programmes should be realistically implemented.

Policy Instruments: The present system of regulating population growth is part of the general economic philosophy acting through the working of an open free market. The government uses the monetary and fiscal tools at its disposal to regulate the overall level of economic activity which, in turn, influences the employment level and the demand for expatriate labour. Under the most recent development plan the state policy aims at reducing the rate of growth of non-Kuwaitis by controlling the flow of immigration into the country. This is being made possible through the mechanization of development and reconstruction services and other industries which have large manpower needs. Stricter regulations have been introduced favoring male workers and restricting and discouraging the entry of their dependents.

Direct intervention of the government through immigration quotas not only restricts the supply of labour, but it also creates an upward pressure on wages. It is suggested that the government should consider the possibility of adopting minimum wage legislation which would initially be designed to discourage the un-economic utilization of labour. We would also suggest that manpower regulation could be better approached through a programme of sectoral allocation. A labour allocation could be worked out similar to the financial allocation for each sector; that is, a manpower allocation could be made for each sector on the same type of line principle that is used to make financial allocations to allow each sector to meet productive goals.

In addition to helping regulate population growth and the balance between Kuwaitis and non-Kuwaitis, such a system could also help the government better regulate the growth of sectors and the distribution of growth among sectors. For example, the rapid rate of growth in the service sector, particularly in public administration, retail, personal and household services, could be slowed by allocating fewer migrant labour positions to this sector and redistributing them to sectors where growth needs to be stimulated. Targets for labour allocation could be pegged to medium and long term projections of the composition of the gross domestic product.

Finally, the Kuwaiti-non-Kuwaiti balance of population is going to be influenced

by the new naturalization programme. The government has adopted a programme which will gradually grant nationality status to Arabs born and raised in Kuwait and to those who have been in Kuwait for most of their lives. Basically, under this programme Arabs residing in Kuwait for at least 20 years, or 15 consecutive years, may qualify for citizenship provided other eligibility requirements are met.

A policy instrument having a major impact on the spatial distribution of population in the country has been the housing programme of the National Housing Authority. Under the current system citizens have the alternatives of having a house provided by the Authority, building a house on a plot allocated by the Authority, or renting accommodations. The traditional values attached to home ownership by Kuwaitis makes renting only a temporary alternative for them, but for non-Kuwaitis it is the only choice, and most rental accommodations are purpose-built. The subsidy programme produces standard units, and allows a larger number of houses to be built at a lower unit cost. Housing standards, under this programme, should be reviewed and modified to reflect the economic diversity found in modern urban settings. Units should be developed which take advantage of architectural features that maximize the economies of space, environmental harmony, and functional designs.

Although the National Housing Authority's programmes have played an important role in shaping past trends of population distribution, new decisions on the future role of the Authority in the metropolitan and new growth areas, and the proportion of Kuwaiti housing demand it will meet, are needed. If the role of the Authority remains linked to Kuwaiti housing needs alone, future programmes will be smaller as the needs of Kuwaitis are met. Even more important, however, is that the opportunity for promoting and directing new growth areas, through the provision of quality housing for non-Kuwaitis as well as Kuwaitis, will be lost. The programme of providing local community facilities for all residential neighborhoods should be continued, but as the characteristics of the population change and become more diverse, new definitions of what constitutes a community unit will have to be developed to reflect this diversity. At the present time subsidies are provided for a range of welfare enhancing programmes, and it is frequently difficult to determine which element of a programme is being supported. An accounting system which would allow a more detailed monitoring of programmes would enhance the government's ability to evaluate the distributional impacts of the various programmes and their elements.

Another instrument used to affect the distribution of population in Kuwait is the development of new towns such as Subiya and Al-Khiran. The potential of this instrument is substantial, but its full effect will take some time to be realized. Moreover, such projects are expensive, and may require substantial revisions once initiated. For example, although the new town of Subiya will proceed largely as planned its growth will be constrained by natural features, the ridge along the south-western side of the peninsula and the tidal flats bordering Kuwait Bay. The development of Al-Khiran as originally planned, however, is now far less tenable. Several oil exploration areas have now been identified within and adjacent to the original site. This could easily lead to permanent oil structures and pipe lines constraining the site visually and physically. Moreover, the construction of illegal chalets along the coast line has created an additional need to preserve the remaining public areas of the coast line south of Ras al Zour.

Al-Khiran was originally conceived of as a free-standing city, but this no longer appears possible given the need to create a sufficiently broad basic employment base in Subiya. That is, the investment which it is taking to develop the latter will make it difficult to undertake the development of an employment base at Al-Khiran. The existing employment centers at Ras al Jilaia and Ras al Zour, Wafra, and the army camps would be better served by a town on the northern part of the KMPR1 site which would also reduce commuting time and distance to the metropolitan areas at Shuiba or Fintas. In any event, the realization that an independent employment base will not be developed at Al-Khiran has led to revisions of its projected size at the end of the plan period which are less than half of what was originally planned.

In addition to these major settlements, an area for future brackish water production is planned at Umm Gudair. Expansion of agricultural activity is envisaged at Wafra and Abdaly in conjunction with rural settlements. Sites for future power and water plants have been selected at Ras Azzour and Subiya, and a new international airport is planned for a site south of Wafra Road.

CONCLUSION AND RECOMMENDATIONS

Like many countries Kuwait has experienced rapid population growth, but unlike many countries experiencing rapid population growth, Kuwait has had a relatively small population and a large capital surplus to invest in its development. Because of its relatively small population development, investments created a high demand for labour which could not be met internally, and this situation necessitated meeting the demand by importing foreign workers. As investments increased, so too did the demand for more workers, and as this demand was met, more and more of the country's total population growth came to be accounted for by increases in the non-Kuwaiti population. This, in turn, resulted in the non-Kuwaiti population making up an increasingly larger proportion of the total population so that by 1985 only about eleven per cent of the countries residents were actually native Kuwaiti.

It is within the context of this rapid growth and emerging imbalance of Kuwaitis and non-Kuwaitis that we have examined trends in the spatial distribution of population, and development and spatial distribution policy within the country. Kuwait's small areal size, the lack of fresh water, and its relatively large desert area have historically mitigated against the emergence of a rural agricultural population. Accordingly, Kuwait has developed largely as an urban society or as a city-state. Using different criteria, estimates of the per cent of the population living in urban areas in Kuwait in 1985 varies from a low of 86 to a high of 98. Employing the ESCWA criteria of persons living in places of 10,000 or more inhabitants leaves the per cent urban at about 90 in 1985, and makes Kuwait one of the more urbanized countries in the world. At this level of urban concentration urban population growth in the country is nearly synonymous with national population growth. Thus, the high rate of national population growth clearly reflects a rapid growth of Kuwait's urban population.

This high rate of growth in the urban population, the natural physical constraints of water barriers on one side and desert on the other, coupled with government policy have had a profound impact on shaping the emerging urban morphology of Kuwait.

Substantial government development investments have kept the demand for labour high and perpetuated the growth factor. These efforts, in turn, have extended urban infrastructure and amenities to areas along the coast line and to a more limited degree inland. Continued investments in the core of the emerging metropolitan area, the development of an expanded road system linking urban localities, and a housing programme for Kuwaiti citizens which promoted Kuwaiti migration toward the periphery of the area led to both expansion of the metropolitan area and increasing segregation of non-Kuwaitis at the core. Further expansion of the metropolitan area and continued decentralization are also being encouraged through the government's efforts to create new urban areas at Subiya and Al-Khiran and through the promotion of growth in other already established localities.

While this overly simple description of urban development in Kuwait captures the broad parameters shaping the course of change, it also masks many of the complexities within the context of change. The real and practical task of implementing a preferred policy strategy is more viable when policy making is done within a broader and more general framework which can accommodate and react to these complexities by directing and influencing the broader parameters of change. In Kuwait this has involved bringing the character and parameters of the economy into harmony with the nature of its resource endowment. In Kuwait's case with its labour short/capital surplus economy this has meant optimizing the rate of return per unit of labour. Kuwait needs to progressively disengage its growth from the need to import labour. This necessitates a comprehensive programme impacting all sectors of the economy on a scale comparable to the effort being made in many western countries to disengage their economic growth from oil based energy consumption. Thus, a structural transformation of the economy is needed which will facilitate both short and long term economic growth.

Our analysis has shown that the physical and economic expansion of Kuwait has been a function of the urbanization process. Oil has provided prosperity for Kuwaitis and employment for non-Kuwaitis, and these two factors have induced large scale population movements to and within the city state. The traditional city has become an economic core for the Arabian Peninsula, and the analysis of core-periphery relationships has documented how emerging patterns of segregation are influencing relationships between, and shaping the development of, the inner area and periphery of the greater metropolitan area. The government realizes the need for a long term development strategy which will improve the geographical dispersion of population, and relieve overcrowding in the limited area of population concentration.

Above we have mentioned a number of problems associated with the government's efforts to implement major urban development projects such as the new localities at Subiya and Al-Khiran. Below we make a number of recommendations for implementing policies and the organizations needed to administer them.

The housing programme needs to be based on policies which are more flexible in providing a wider range of house types, and the programme needs to be able to better respond to the changing needs of the people during different phases of development. Because the housing situation in each place has been influenced by a unique combination of factors such as income differences, city size, rates of urban growth, topography, and

policy and administrative issues, it is difficult to employ a point system to specify housing conditions throughout the country (Grimes, 1984). Efforts to meet future housing needs must respond to both perceived demand and the peoples' aspirations for higher standards. To reduce per unit costs and save construction time, standardized construction techniques should be considered as should modular planning and the use of prefabricated components.

The implementation of the two new towns at Subiya and Al-Khiran clearly represents the single most important objective of the plan. In promoting this programme, however, it is important not to lose sight of the fact that the success of this programme will, in part, be determined by the exercise of control over development in the metropolitan area and in the city center. In the past, inadequate enforcement of building regulations, arbitrary changes of permitted development densities in the center, and land use changes have tended to undermine the strategic principles and objectives embodied in the Master Plan. In the absence of tighter enforcement of regulations the new town strategy will be seriously threatened. The application of tighter controls and the use of specified procedures in the metropolitan area must begin as soon as possible. The government must realize that implementation of these regulations is no less challenging, and no less important, for the success of this programme than are the logistical aspects of building two new towns within the development period.

The target populations for the new towns at Subiya and Al-Khiran are formidable. To achieve these targets during the specified time period will require attracting a large number of employers and real estate investors, and the build-up of an economic base to support the populations. To build-up an economic base of the magnitude needed in each of these places will require a major commitment from the government which goes well beyond a mere commitment to the concept of new towns per se, and includes promotion of all policies likely to enhance the growth potential of these places.

Several studies completed in conjunction with the proposals to undertake and evaluate the new town projects going back as far as 1978 have recommended establishing autonomous development authorities to oversee and regulate the task of building these places. We concur with these recommendations, and suggest that each of these implementation units be given responsibility for administering and coordinating development activities in each. The main objectives of each of these units should be: 1) To secure the immediate development of each new town in accordance with the approved Master Plan and Local Plans. This should include regular review and modification of the Master Plan to permit adjustments to changing circumstances resulting from development. 2) To ensure that the physical infrastructure developed is properly managed, and that all relevant services are provided to the inhabitants of each place. It is important to ensure that the appropriate authorities take over responsibility for servicing each town at the earliest possible date. This will, in turn, require that the appropriate authorities have the resources to perform their functions. 3) To ensure that these units have a clear mandate, each should have a well defined brief specifying its responsibilities and its relationship to ministries, agencies, and other public bodies as well as its areas of operation and its decision-making powers within these. Each unit should have a single and narrow purpose which is directed exclusively at securing the development of its charge.

Finally, the most recent employment and population projections for Al-Khiran suggest that this place could grow to as large as 300,000 by 2010. This is much larger than the 150,000 to 200,000 projected in the 1984 study. This additional potential growth has created the need for further review of the original study to determine whether or not assumptions made earlier about the site and its capacity are valid. These considerations lead us to suggest that a new review of the national physical development strategy (KMPR3) is urgently needed. This study should look beyond the local level and investigate the issues surrounding national population growth and employment including the capacity of the metropolitan area in light of changes in policy and planning opportunities which have arisen since KMPR2. Explicit consideration should be given to how best to integrate the new towns progamme, including the timing of Al-Khiran and Subiya development, into the national development strategy.

TABLE (1)

POPULATION OF KUWAIT IN CENSUS YEARS, 1957-1985

Census Year	Total	Kuwaiti	Non-Kuwaiti	%Non-Kuwaiti
Enumerated Population				
1957	206.473	113.622	92.851	44.9
1961	321.621	161.909	159.712	49.7
1965	467.339	220.059	247.280	52.9
1970	736.662	347.396	391.266	53.0
1975	994.637	472.088	522.749	52.5
1980	1,357.952	565.618	792.749	58.7
1985	1,697.301	681.288	1,016.015	59.9
Percentage Increase (Base Year 1957)				
1957	1.00	1.00	1.00	
1961	1.55	1.42	1.72	
1965	2.26	1.94	2.66	
1970	3.55	3.08	4.21	
1975	4.82	4.15	5.63	
1980	6.63	4.98	8.54	
1985	8.22	6.00	10.94	

Source: Kuwait, CSO (Central Statistical Office). N.d. Population Censuses of Kuwait.

TABLE (2)

ANNUAL AVERAGE GROWTH RATES OF THE POPULATION OF KUWAIT DURING THE INTER-CENSUS PERIODS

Inter-Census Period	Total Population	Kuwaiti	Non-Kuwaiti
1957-61	11.1	8.7	13.7
1961-65	10.0	8.1	11.6
1965-70	9.6	9.6	9.6
1970-75	6.3	6.3	6.0
1975-80	3.7	3.7	8.7
1980-85	3.8	3.8	5.1

Source: Kuwait, CSO (Central Statistical Office). N.d. Population Censuses of Kuwait.

TABLE (3)

NON-KUWAITI POPULATION BY NATIONALITY
1975, 1980 AND 1985

Nationality	1975		1980		1985	
	Numbers	%	Numbers	%	Numbers	%
Arabs	419.187	80.0	874.485	72.5	642.614	63.3
Asians	97.818	18.7	204.104	25.8	355.947	35.0
Africans	440	0.1	1.601	0.2	2.380	0.2
Europeans	4.280	0.8	8.984	1.8	11.908	1.2
Americans	814	0.2	1.997	0.2	2.994	0.3
Others	216	--	158	--	356	--
Total	522.749	100.0	792.339	100.0	1,016.013	100.0

Source: Kuwait, CSO (Central Statistical Office). 1986. "Major Demographic Features of the Population of Kuwait". 1985 Census Analysis 1. Research Studies on Population.

TABLE (4)

LABOUR FORCE AND ACTIVITY RATES BY NATIONALITY
1975, 1980 AND 1985

Nationality	1975		1980		1985	
	Numbers	%	Numbers	%	Numbers	%
Economically Active Population						
Kuwaiti	91.844	30.2	107.635	21.9	126.410	18.9
Non-Kuwaiti	212.733	69.8	388.722	78.1	543.944	81.1
Total	304.532	100.0	491.357	100.0	670.354	100.0
Crude Activity Rates						
Kuwaiti	19.5		19.0		18.6	
Non-Kuwaiti	40.7		48.4		53.5	
Total	30.6		36.2		39.5	
Refined Activity Rates						
Kuwaiti	38.5		37.5		36.1	
Non-Kuwaiti	76.5		73.1		75.4	
Total	55.0		60.5		62.5	

Source: Kuwait, CSO (Central Statistical Office). 1987. "Recent Changes in Labour Force Development, its Size and Sectorial Distribution in Kuwait, 1975-1985". 1985 Census Analysis 2. Research Studies on Population.

TABLE (5)

DISTRIBUTION OF POPULATION OF KUWAIT BY LOCALITY 1970-1985

Locality	1970		1985	
	Number	% Kuwaitis	Number	% Kuwaitis
Capital Governorate	172,681	52.9	167,749	38
Kuwait City	80,405	42.0	44,424	2.4
Beneid Al-Qar	7,294	43.4	14,032	8.2
Dasma	8,222	81.6	10,313	63.0
Mansuriya	3,490	83.0	4,630	69.9
Abdulla Al-Salem	1,847	5.3	9,942	65.0
Shamiya	7,670	74.3	7,278	59.0
Daiya	8,136	81.4	8,816	62.0
Qadsiya	11,065	85.0	12,531	60.8
Failaka	3,263	58.7	5,826	41.5
Nuzha	984	13.1	6,747	68.0
Faiha	10,438	79.4	10,835	59.0
Keefan	12,449	77.7	15,595	60.7
Shuwaikh & Shuw-h Industrial Area	10,306	17.2	8,141	15.6
Sulaibikhat	7,112	17.9	8,639	3.8
Hawalli Governorate	408,847	24	943,250	12
Hawalli	106,542	10.8	145,215	2.8
Salmiya	67,349	23.3	153,220	6.8
Shaab	5,674	75.6	8,405	47.7
Maidan Hawalli	15,309	12.8	28,970	4.2
Rawada	9,875	83.7	16,330	67.0
Adeiliya	8,369	80.2	9,717	66.7
Khalidiya	7,603	81.8	8,633	67.9
Rumaithiya	21,635	88.2	38,979	66.1
Salwa&Messillah	1,573	52.1	24,800	26.3
Sabah Al-Salem & Sabhan			34,752	70.9
Mishrif			13,342	66.0
Bayan			26,864	72.3
Jabriya	6,411	34.9	17,824	34.7
Surra.			7,361	52.3
Quartoba			2,351	51.2
Yarmouk			5,684	53.7
Abrak Kheetan	38,015	37.1	114,346	16.2
Omeriya & Rai	14,195	77.1	22,674	47.4
Al Rabiya			14,554	69.9
Farwania	37,250	32.7	68,665	10.8
Jalib Shuwaikh	38,180	87.3	114,585	24.7
Regay			6,682	4.6
Andalos			9,003	38.4
Ardiya			14,150	44.4
Shidadiah	11,690	98.2		
Sayid Al Awazim	19,177	98.2		
Fardous			36,144	84.0

TABLE (5 - Cont'd.)

Locality	1970		1985	
	Number	% Kuwaitis	Number	% Kuwaitis
Ahmadi Governorate	88,649	57	304,649	19
Ahmadi City	21,265	39.7	26.870	53.5
Fahaheel	29,670	37.0	50,130	23.3
Sibaiya	4,167	94.8	60,657	59.9
Rega & Hadiya			36,340	79.7
Fneitees & Fn-s West	665	41.7	3,549	9.7
Funtas & W. Funtas	3,090	11.6	16,838	30.9
Ugheoilah	3,766	88.4	3,176	65.0
Mahboola			3,313	11.0
Abu Halifa	2,177	67.2	13,041	21.1
Manqaf			17,265	31.1
Um Al-Himan			31,546	87.0
Shuaibu & Coast South	10,178	47.5	28,300	28.0
Strin	3,673	23.6	8,906	19.9
Wafra	9,998	57.0	4,718	63.1
Desert Area Ahmadi				
Jahra Governorate	52,154	62	279,466	68.3
Jahra	24,044	83.6	162,377	80.9
Sulaibiya	3,831	74.2	68,356	75.9
Sulaibikhat	8,636	85.2	19,589	58.8
Doha	8,980	23.2	19,124	71.6
Desert Area Jahra	6,663	59.6	10,020	54.3

Source: Al-Sabah, A. Y.: 1987. "The Development of the Geographical Distribution of the Population of Kuwait. Kuwait University Publications. pp. 129,140.

TABLE (6)

PERCENTAGE DISTRIBUTION OF POPULATION IN KUWAIT BY NATIONALITY, 1970-1985

Governorate	1970	1975	1980	1985
Kuwaitis				
Capital	22.8	18.8	12.7	8.9
Hawalli	51.2	48.3	36.4	38.0
Ahmadi	15.5	16.4	34.1	21.7
Jahra	10.5	17.0	26.3	31.4
Total	100.0	100.0	100.0	100.0
Non-Kuwaitis				
Capital	23.9	19.4	18.9	10.5
Hawalli	59.1	65.7	69.0	67.5
Ahmadi	12.9	10.0	12.1	15.5
Jahra	4.1	4.5	5.0	6.5
Total	100.0	100.0	100.0	100.0
Total Population				
Capital	23.4	18.0	13.4	9.9
Hawalli	55.4	57.4	55.4	55.6
Ahmadi	14.1	14.2	17.1	18.0
Jahra	7.1	10.4	14.1	16.5
Total	100.0	100.0	100.0	100.0

Source: Kuwait, CSO (Central Statistical Office). N.d. Populaiton Censuses of Kuwait.

TABLE (7)

SOME INDICES OF THE POPULATION CONCENTRATION IN KUWAIT, 1980-1985

Type of Index	1980	1985
Concentration Ratio	0.73	0.70
Index of Concentration	0.66	0.63
Urban concentration Index		
- Localities with 10,000 Prs.	12.5	9.9
- Localities with 20,000 Prs.	27.4	27.4

Source: Al-Sabah A.Y. 1990. "The Population Concentration in Kuwait"". Journal of the Gulf and Arabian Peninsula Studies. Vol. 16, no. 62. Kuwait.

TABLE (8)

TOTAL NUMBER OF LOCALITIES IN EACH GOVERNORATE
BY POPULATION DENSITY, 1980-1985

Governorate	Density of Population					
	0-4.999		5.000 - 9.999		10.000 and Over	
	1980	1985	1980	1985	1980	1985
Capital	8	8	5	5	1	1
Hawalli	20	16	3	5	4	4
Ahmadi	11	12	3	2	-	-
Jahra	5	4	-	1	-	-
Total	44	40	11	13	5	5

TABLE (9)

NATIONAL HOUSING AUTHORITY SCHEDULED COMPLETIONS, HOUSING PLANS, 1975/76-1979/80 AND 1980/81-1984-85

Type of Dwelling	Housing Plan	
	1975/76 - 1979/80	1980/81 - 1984/85
Average Income Group Houses	1,751	920
Limited Income Group Houses	7,645	5,320
Arab-Style Houses	9,696	---
Total	19,092	6,240

Source: NHA (National Housing Authority). 1988. "Housing Construction Timetable". Third Five-Year Housing Plan. Kuwait.

TABLE (10)

PROPOSED NATIONAL HOUSING AUTHORITY HOUSING PROGRAMME, 1985/86 - 1989/90

Locality	Type of Dwelling	
	House	Plot
Sabah Al Salem		328
Al-Jahra	1,088	
Fintas	1,125	1,054
South Rabia	490	424
East Andalus		350
South Firdus		231
Filka		323
Al-Kurain Project	8,656	3,231
Total	11,359	5,837

Source: NHA (National Housing Authority). 1988. "Housing Construction Timetable". Third Five-Year Housing Plan. Kuwait.

TABLE (11)

NATIONAL HOUSING AUTHORITY SCHEDULED COMPLETIONS 1981-1986
(HOUSING UNITS)

Location	Villas	Flats	All Units
(a) Before 1981 (Overlapped into 1981-86 Plan)			
Sabah Al Salem	1,983	564	2,547
Ain Baghzi	1,916	--	1,916
Sawaber	---	951	951
(b) 1981-86 Programme			
Sabah Al Salem	2,312		2,312
Dhahar	2,541		2,541
Failaka	70		70
Ardiya 2	2,350		2,350
Jahra 2	1,902		1,902
Fintas	2,844		2,844
N. East Sawaber	366		
East Sulaibikhat	2,000*		2,000
Total	12,019	2,368	14,387
(c) Potential			
Sabah Al Salem/ Faneitees	1,000		
NHA Short Term Potential	22,091	2,386	24,387

* UNDER REVIEW

Source: Bushanan, Colin et al. 1983. Master Plan for Kuwait: Second Review 1983. Final Report, Vol. 1. Kuwait: Municipality of Kuwait. p. 90.

TABLE (12)

NATIONAL HOUSING AUTHORITY SCHEDULED PROGRAMME HOUSING PLAN
1990/91 - 1994/95

Housing Units	Villa (Sites)	Flats	Arab House (Sites)	Total
Overlapped into 1989/90				
- accumulated up to 1986	9,622	262	16,337	26,221
- expected up to 1986/90	3,800	200	7,600	11,600
Expected during the forth Plan 1990/91-1994/95	4,750	250	9,500	14,500
Total Required	18,172	712	33,437	52,321
Commitments 1985/86-1989/90	7,592	1,088	16,710	25,390
Commitments 1990/91-1994/95	10,500	---	16,727	27,227

Source: NHA, (National Housing Authority). 1988. "Housing Construction Timetable". Third Five-Year Housing Plan. Kuwait.

REFERENCES

Arriaga, E. 1975. "Selected Measures of Urbanization". In The Measurement of Urbanization and Projection of Urban Population, edited by S. Goldstein and D. Sly. IUSSP. Liege, Belgium. pp.19-84.

Birks, J.S., and C.A. Sinclair. 1982. "Contemporary International Migration and Human Resources Development in the Arab Region: Background and Policy Issues". In The Population and Development in the Middle East. Beirut: United Nations, Economic Commission for Western Asia (ECWA), pp. 259-272, Beirut.

Bushanan, Colin, et al. 1983. "Master Plan for Kuwait: Second Review 1983". Final Report. Vol. 1. Kuwait: Municipality of Kuwait.

Castello, V.F. 1977. Urbanization in the Middle East. Cambridge: Cambridge University Press.

Clarke, J. 1982. "Contemporary Urban Growth and Concentration in the Middle East". In The Population and Development in the Middle East. Beirut: United Nations, Economic Commission for Western Asia (ECWA), pp. 309-321.

Clarlk, D. 1982. Urban Geography. London: Croom Helm.

Davis, K. 1969. "World Urbanization 1950-1970". Two volumes. U.S.A.: Greenwood Press, Westsport, Connecticut.

Duncan, O.D. 1957. "The Measurement of Population Distribution". Population Studies. Vol. 11, no. 1.

Grill, N.C. 1984. Urbanization in the Urban Peninsula. Occasional Papers series, no. 25. London: Center for Middle Eastern and Islamic Studies.

Grimes, O.F. 1984. "The Urban Housing Situation in Developing Countries". In Urban Development in the Third World, edited by Pradip K. Ghosh, London: Greenwood Press, pp. 167-185.

Hill, A.G. 1977. "The Demography of the Population of Kuwait". Population Bulletin of ECWA, no. 13, Beirut: United Nations, Economic Commission for Western Asia. pp. 42-55.

Jefferson, M. 1939. "The Law of the Primate City". Geographical Review. 29(2), pp. 226-232.

Kohli, K.L. 1989. "Population Policy in Kuwait". In Fertility Policies of Asian Countries, edited by K. Mahadevan. New Delhi: Sage Publications,pp. 215-237.

Kuwait, CSO (Central Statistical Office), 1986a. Annual Statistical Abstract. Kuwait: Ministry of Planning.

Kuwait, CSO (Central Statistical Office), 1986b. Major Demographic features of the Population of Kuwait. In 1985 Census Analysis 1. Research Studies on Population. Kuwait.

_____. 1987. "Recent Changes in Labour Force Development, its Size and Sectorial Distribution in Kuwait, 1975-1985". 1985 Census Analysis 2. Research Studies on Population. Kuwait.

_____. 1988. Labour Force Sample Survey. Preliminary Results. Kuwait.

_____. N.d. Population Censuses of Kuwait.

Kuwait, Ministry of Planning. 1985. The Fourth Five-Year Development Plan, 1985/86 - 1989/90. Vols. 1 and 2. Kuwait.

Al-Marzouk, Sabah, et al. 1988. "Al Khiran New Town. Final Report". Kuwait: Municipality of Kuwait.

Al-Moosa, A., and Keilh Mclachlan. 1985. "Immigrant Labour in Kuwait". London: Crom Helm Ltd.

NHA (National Housing Authority). 1988. "Housing Construction Timetable". Third Five-years Housing Plan. Kuwait.

Ohadike P.O., and H. Tesfaghiorghis. 1975. "The Population of Zambia". In 1974 World Population Year. C.I.C.R.E.D. Series.

Planning Board. Central Statistical Office. 1974. "Population Policy of Kuwait". Paper presented at First Regional Conference, Beirut.

Al Sabah, A. Y. 1987. "The Development of the Geographical Distribution of the Population of Kuwait". Kuwait: Kuwait University Publications. (In Arabic).

_____. 1989. Forthcoming "Labour Force Dimensions in Kuwait". In The Bulletin of Faculty of Arts. Cairo: Cairo University.

_____. 1990. "The Population Concentration in Kuwait". Journal of the Gulf and Arabian Peninsula Studies. Vol. 16, no. 62. Kuwait.

Shah, N.M., and Musa'ad Al-Omaim. 1988. The Population Dynamics of the State of Kuwait. Kuwait.

El-Shalakani, M.H. 1989. "Determinants of Migration to Kuwait". Demography. New Delhi. pp. 1-25.

Shiber, S.G. 1984. Recent Arab City Growth. Kuwait.

Stephens, R. 1976. The Arab New Frontier. London.

UN (United Nations), Department of Economic and Social Affairs, Population Division. 1979. Patterns of Urban and Rural Population Growth. New York.

_____. 1986. Report on Fifth Population Enquiry. New York.

_____. Economic and Social Commission for Western Asia (ESCWA). 1986. Demographic and Related Data Sheets. No. 5. Baghdad.

_____. 1987. The Human Settlements Situation in Kuwait: Country Profile. Baghdad.

Population Spatial Distribution Policies in Saudi Arabia

Abdulla H.M.Al-Khalifeh[*]

[*] *Department of Sociology, Imam Mohammad Ibn Saud Islamic University, Riyadh*

INTRODUCTION

In examining population distribution in Saudi Arabia it is important to begin from the realization that urbanization is a relatively new phenomenon in the Kingdom. During the early stages of social and political development (1901 - 1930), more than two-thirds of the total population was nomadic (Twitchell, 1958: 139) with the remainder living in small villages, towns and hamlets. With the emergence of a stable political system and the discovery of oil in the late 1950's, the government instituted a series of policies designed to settle a large proportion of this nomadic population. The success of these policies led to the establishment of a number of new villages and hamlets while previously existing cities and villages began to grow as a result of both rural to urban migration and improvements in public health.

During the last three decades the process of urbanization has progressed at an unprecedented rate. The movement of people from rural to urban areas has been phenomenal, particularly during the 1970's. Cities and towns in all regions of the Kingdom have expanded in varying degrees from small places of a few thousand to large urban centers with tens and even hundreds of thousands of residents. Barth and Quel (1987), for instance report that Riyadh and Jeddah grew from just 30,000 inhabitants each fifty years earlier to more than a million by the mid 1980's. While much of this type of place growth was fueled by rural to urban migration, it was also contributed to by the immigration of expatriates needed to work in the construction, and operation of infrastructures began in the late 1970's and continued through the early 1980's.

In this Chapter we review and assess the population spatial distribution policies which contributed to the current pattern of population distribution in Saudi Arabia. We first comment on the state of data on population distribution in the Kingdom. Second, we examine in more detail the growth of the total population and the level, pace and trends of urbanization. Finally, we focus on the explicit and implicit policies which have directly and indirectly shaped the current spatial distribution of population in the country.

SOURCES OF DEMOGRAPHIC DATA IN SAUDI ARABIA

Like many developing countries, Saudi Arabia possesses a limited amount and a variety of demographic data on its population. The first effort to systematically enumerate the population of the country occurred in 1932 (Al-Ruithy, 1979: 23). From this effort the population was estimated to be some 5.2 million persons, 57 per cent of whom were nomadic. In 1962 - 1963 the Central Bureau of Statistics undertook the first Census of the Kingdom. This count resulted in a total enumeration of just 3.2 million persons of whom just less than 21 per cent were nomadic. It is generally believed that large segments of the nomadic population were undercounted, and that this led to a sizeable under enumeration of the total population. Despite these inadequacies it was felt that data for some cities where there were no nomads were of sufficient quality to merit publication.

A second Census was undertaken in 1974. This Census which is also the most recent for Saudi Arabia is considered by the government to be the first complete enumeration. It yielded a total count of 7,012,642. A third Census was planned for 1991, but it has been delayed because of the hostilities over the Kuwait invasion. Thus, after 1974 the only data available for the Kingdom are from a number of sample surveys conducted over the ensuing decades. Although some estimates of the population and its characteristics have been derived from these survey data, considerable reliance has been placed on data made available by major international agencies such as the United Nations and the World Bank.

POPULATION GROWTH AND URBANIZATION

Population Growth: Using the 1974 Census as a benchmark, the United Nations (1982: 322) has provided estimates of the population of Saudi Arabia from 1950 - 1990. These data show that the population of the country grew from 3.2 million in 1950 to 12.9 million in 1990; this represents a four fold increase in population over the 40 year period (see Table 1). This rapid rate of change in the total population has been contributed to by a 36 per cent increase in the rate of natural growth which rose from 23.1 per thousand in 1950 - 1955 to over 31 per thousand in 1990 (United Nations, 1982: 332). Similarly, a continuously growing expatriate population has contributed substantially to total population growth. Despite this rapid growth the population density of the country which was one person per square kilometer in 1950 was still only six persons per square kilometer in 1990.

Urban Population Change: In 1950 the urban population of Saudi Arabia was only slightly more than a half million persons and the level of urbanization was only 15.9 per cent. During each of the decades from 1950 to 1960 and 1960 to 1970 the urban population of the country more than doubled, and by 1970 the level of urbanization was nearly 50 per cent. Urban population growth continued at a high rate throughout the 1970's and 1980's, and by the late 1980's more than 75 per cent of the Saudi population lived in urban areas. Table 2 shows the diverging trends in urban and rural population growth over this period. Although the rate of urban growth showed a continuous decline with each passing period, the increment to the urban population increased. The rural population, on the other hand, showed a continuously declining rate of change and, by the end of the period the rural population was actually declining in size.

While statistics are not available to precisely measure the separate contributions of rural to urban migration and international migration to this rapidly changing redistribution of population, three other factors have played an important role in this process. First the growth of a number of rural areas led to their re-classification as urban; second, a number of previously existing, rapidly growing urban centers expanded into and developed through previous rural areas (Al-Khalifah and Frisbie, 1989: 15 - 22); finally, a number of new towns and cities were built, and these later became major centers for absorbing migrants.

It is not likely that urban population growth will continue to outpace rural population growth in the future by the same margin that it has in the past. Most urban areas have reached their optimum capacity in absorbing in-migrants from the country

side. Moreover, the pool of rural migrants has been substantially reduced as a result of previous rural to urban migration, and rural-urban disparities, in terms of economic opportunities and the availability of jobs, have been substantially reduced as a result of the government's attempt to reduce regional differences and the implementation of policies to develop large scale agricultural projects. Increasingly in the future we can expect that an increasing amount of urban growth will be due to natural growth which, in turn, is likely to be influenced by declining fertility.

Number and Distribution of Urban Areas: As implied above prior to the 1950's the majority of population settlements in Saudi Arabia were rural in character. During the 1940's there were only about ten recognized urban settlements in the country, and most of them were located in the western areas. The largest urban center during this period was Makkah with some 80,000 inhabitants while places like Riyadh, Jeddah and Hafuf had populations which approached 30,000. The remaining urban areas in the country ranged in size from twenty to five thousand.

Beginning in the 1950's the number and size of urban areas began to increase. The data in Table 4 show that the number of urban areas increased from 10 places in 1940 to 82 in 1974 and to 102 in 1987. Until 1940 no urban area had reached the 100,000 plus class size, but by 1950 one city (Makkah) had, and this number continued to increase reaching five by 1970. By 1974 there were nine cities which were in the 100,000 to 499,999 class size and two cities which were between 500,000 and 999,999 in size. By 1984 there were twelve cities in the country larger than 100,000 people, and two of these (Riyadh and Jeddah) had populations which exceeded one million.

Data on the regional distribution of urban areas are shown for two points in time in Table 5. These data show that the number of urban areas increased within all regions except the Eastern between 1974 and 1987. The decrease in the number of urban places in the Eastern region, in part, is accounted for by the changed definition referred to above. With respect to the number of urban areas in each region, it is particularly noteworthy that the Central region with the largest number of urban areas in 1974 (26) had the largest increase (11) in the number of urban areas over the interval. The second largest increase (7) in the number of urban areas, however, occurred within the Southern region which had the smallest number (10) of urban areas in 1974. Thus, by 1987 the difference between the number of urban areas in the Northern, Southern and Western regions of the country was minimal while the overall gap between the regions (Central and Eastern) with the largest and smallest number of urban areas widened considerably.

Looking at changes over size categories we can see a pronounced shift toward larger size agglomerations in all regions. For example, in 1974 no region except the Western had more than two agglomerations over 100,000 inhabitants, and two (the Northern and Southern) had none. By 1987 the Eastern and Western regions each had four places over 100,000 and Central had three while the Northern and Southern regions had two and one respectively. Shifts of a similar or greater magnitude can be observed if we look at the lower end of the size distribution categories within each of the regions.

A clearer picture of the urban system emerging in Saudi Arabia can be obtained by looking at the extent of primacy within the country. At the national level studies have

shown Saudi Arabia to have a low level of primacy (Clark, 1971: 157; Al-Ankary, 1987: 92; and Makki, 1987: 72). The four-city index of urban primacy increased slightly from .47 to .59 between 1962 and 1974 (Makki, 1986), but then decreased from .59 in 1974 to .56 in 1987 (Al-Hathlul and Edadan, 1989: 7). At the regional level urban primacy is below unity in all regions except the Central, but even in the Central region there are clear signs that the level of urban primacy is declining. Al-Hathlul and Edadan (1989), for example, report that the four-city index for the Central region declined from 5.31 in 1974 to 4.71 in 1987. Overall, these data suggest the development of a relatively balanced urban structure.

Al-Khalifah (1985: 160 - 183) and Al-Hathlul and Edadan (1989) have also examined some of the factors which have influenced regional variations in primacy and the level of primacy in the country. Their work demonstrates that a myriad of factors have influenced the development of the urban system. Clearly, urban ecological factors by themselves are insufficient and it takes a number of social, political, historical and cultural factors to explain the balanced development. Of particular interest here is the work of Al-Hathlul and Edadan which suggests that the urban primacy of regions is a function of physical, demographic and public investment factors. Indeed, from a policy perspective it is of special importance to note that they conclude that public investments more than anything else influences primacy at a regional level.

THE GOALS OF SPATIAL POPULATION DISTRIBUTION

Population distribution policy goals must be considered within the broader goals of society and be seen as a means to facilitating the accomplishment of these goals. In Saudi Arabia these goals have been clearly stated in the first development plans: "...to maintain the society's religion and moral values and to raise the living standard and welfare of its people while providing for national security and maintaining economic and social stability" (Central Planning Organization, 1970: 23)." These general guidelines for socio-economic development policy have continued to be expressed in all five-year development plans since their initial formulation (see Ministry of Planning, 1975: 8; 1980: 3; 1985: 41; and 1990: 9). Specific micro strategies have been formulated to achieve these broader goals. Thus, our review of policies affecting spatial distribution must take account of the general societal policies not only because they provide the guidelines, but also because the pattern of population settlement has been strongly influenced by many non-spatial macro and sectorial policies even in the absence of a clearly stated and well defined spatial policy.

Indeed, Saudi Arabia may be a good illustration of what can happen in the absence of a clearly stated spatial policy. The first development plan (1970 - 1975) emphasized development of infrastructure and diversification of economic sectors, but there were no specific policies stated with regard to spatial distribution. Despite this, the implementation of this plan had a profound influence on the distribution of population. The specifically targeted regions for implementation of this plan had a high potential for economic development, and the stimulus provided by implementation made them areas of settlement for both internal and international migrants. As regional differences in growth rates became pronounced by the end of this period, it became increasingly necessary for the government to formulate additional policies to meet the contingencies

emerging from growth.

The second development plan (1975 - 1980) included policies which expressed the need to develop lower order cities and rural settlements. The main objectives of this policy were to expand municipal services throughout the Kingdom. As a result new municipal centers were established which later became trading and manufacturing centers. Nevertheless, this plan still did not contain a clearly articulated set of urban policies. By the time of the third development plan (1980 - 1985), however, population distribution issues were explicitly addressed at several levels. There was a shift from the development of major urban centers toward providing basic community services in small towns and rural areas. Several national and regional strategies were specified in the third plan. Regional development would be focused toward rural areas to assist them in the development of productive activities which would help to retain as many rural residents as possible. This was expected to better distribute resources and to help not have them overconcentrated in a few urban centers. The concept of a urban system also emerged in the plan with the intent to promote national, regional and local centers which would serve as a mechanism for the effective coordination of development. The plan stressed the need for the development of a system of settlements within a well-defined hierarchical structure which would reduce rural to urban migration as well as strengthen the productive capacity of the entire system.

The basic strategies laid down in the third plan were carried over to the fourth plan (1985 - 1990). In this plan, however, emphasis was placed on a more equitable distribution of services and economic opportunities. One of the more important dimensions of this plan was the establishment of village clusters. A village cluster is a group of villages (organized around a central village) to which municipal services are extended through a central village. This concept has been carried over into the fifth development plan (1990 - 1995) which is placing an emphasis on regional development through the village clusters. The goal is to reduce rural-urban disparities by creating new village clusters and extending development of existing clusters to make municipal and other public services more accessible to the rural population.

In short, the five development plans have contained a number of policies which have influenced the patterns of population distribution discussed in the preceding section. Some of these efforts have been more explicit than others, and even prior to the explicit elucidation of a distribution policy, programmes were being initiated which played an important role in redistributing population. What seems crucial in this total context, however, is the fact that the government has clearly come to realize the importance of spatial distribution planning and the role that it can play in helping to meet broader societal objectives. which can be summarized as follows:

1. The equitable distribution of services and socio-economic opportunities whenever possible among and within regions to avoid the concentration of economic activities in a few urban centers.

2. The development of growth centers in areas with promising potential. This has been accomplished by strengthening the economic base of these areas and fostering economic diversification.

3. The establishment of a system of national, regional and local centers for the provision of services and through which development services could be coordinated.

4. The reduction of rural-urban disparities through the extension of municipal services to rural populations with the village cluster system.

5. The improvement of cooperation and coordination between public agencies and institutions to avoid discrepancies and duplications in implementing national policy in both urban and rural areas.

If concentration is assumed to lead to greater efficiency, one could argue that after the first five-year plan the government's goals have been more equity oriented than efficiency oriented. While there can be no doubt that at the regional level the equity disparity is shrinking, there can also be no doubt that a considerable gap persists and that some regions still lag behind others. The Southwest, for example, which is also the most densely settled area of the country still lags behind the other regions. Examples such as this can be cited to call the equity oriented policies of the government into question, but it is also clear that not all disparities can be reduced and eliminated in the short span of twenty years.

INSTRUMENTS OF POPULATION DISTRIBUTION POLICY

Richardson (1983: 273) has suggested that the instruments employed by governments to implement their population distribution policies can be examined in terms of two broad categories. Enterprise oriented instruments are those designed to operate at a macro level and in economic terms facilitate firm development. They essentially begin from the assumption that industrial development will attract and/or hold population in place. That is, enterprise oriented instruments operate on population distribution indirectly by altering economic opportunities. In contrast to these, Richardson suggests that individual oriented instruments are those which operate more directly on the individual. As a matter of fact one could argue that it is a fine line which separates the two and that any government adopting a distribution policy must seek out instruments of both types. This is, in fact, the case in Saudi Arabia. While space does not permit us to discuss all of the instruments of the spatial distribution policies of the government of Saudi Arabia, it will be worth noting a few to give some examples of the breadth and intensity of the programme effort.

Public Infrastructure Development: Undoubtedly the most widely employed instrument of population distribution policy throughout the world is public infrastructure development. Richardson (1983: 372) has noted that among less developed countries, industrial infrastructure development consistently is given more emphasis than the development of social infrastructure. In Saudi Arabia a more balanced approach has been taken so that five year plans have emphasized the development of both social and physical infrastructure.

In the realm of physical infrastructure commendable efforts have been directed

at the development and expansion of electricity, water desalinization, transportation and communication services throughout the country. For example, the data in Table 6 show long term electrical production and consumption trends with both dimensions displaying impressive and steady annual growth over the period from 1970 to 1987. Over this interval which begins with the first development plan and runs into the period of the fourth development plan, electrical power generation increased about thirty fold and the volume of electrical power sold increased by a factor of nearly twenty-eight. Likewise the number of subscribers increased by a factor of ten and the per subscriber consumption increased from just 2,600 KW in 1970 to nearly 17,850 KW by 1987.

The availability of fresh water was a major problem for the country. The data in Table 7 show quite clearly the successes of the government in facing and attacking this constraint. The data in Table 7 show that in 1970 desalinization plants had the capacity of producing just 5.1 U. S. gallons per day (mgd). Over the 17 year period to 1987 production capacity increased by an annual average of nearly 38 per cent bringing output capacity in 1987 to over 421 million gallons a day. Actual production showed a similar increase rising from just 4.6 mgd to over 337 mgd, or an average annual increase of about 36 per cent. The Table also clearly shows that these plants are serving a geographically broad area reflecting the equity oriented nature of distribution policy.

Parallel achievements have been attained in the development of communication and transportation infrastructures. Data depicting developments in these realms are presented in Table 8. Between 1970 and 1987 the Kingdom's network of paved intercity roads was expanded at an annual average rate of nearly ten per cent rising from a total of 8,000 kilometers at the start of the period to nearly 31,000 kilometers at the period's end. The network of earth surfaced roads was expanded from 3.5 thousand kilometers to 61.5 thousand kilometers over this period bringing nearly 8,000 villages into an integrated system which also connected and facilitated transportation between nearly all towns and cities. While the development of this road system has been critical to the development of an efficient transportation infrastructure data in the Table on the number of registered vehicles, which rose from fewer than 60,000 to nearly 4.5 million over the period, also suggest that the system has been intensively used.

What is important to realize, however, is that the development of these physical dimensions of infrastructure was not made at the expense or exclusion of social infrastructure development. The situation with respect to education illustrates this very well (see Tables 9 and 10). Over the period from 1970 to 1987 the number of schools in the Kingdom increased from 3,107 to 15,353, the number of teachers from 23,118 to 154,414 and the number of students from 547,000 to 2,486,000. This magnitude of growth in this sphere is very impressive, but what is even more remarkable is that even in the face of this growth and expansion of education the student/teacher ratio declined from nearly 24 to about 16 students per teacher. Equally impressive is that gains were made in the area of higher education (Table 10) with the total number of university graduates (including those receiving degrees from abroad) increasing at an annual average rate of nearly 20 per cent, or from only 808 in 1970 to 15,301 in 1987. Similarly, the number of students in vocational training programmes increased from 578 in 1970 to 9,719 in 1987. Quite clearly then, the growth and expansion of the education infrastructure have been comprehensive, spanning the full range of needs emerging with the development of an

urban based population.

Table 11 presents data depicting an equally impressive investment in the development of a health care infrastructure. Since the beginning of the first five-year plan to 1987 the number of hospitals, dispensaries and health centers increased from 566 to 1,590, and the number of hospital beds from 7,165 to 24,644, or by an annual average increase of about 7.2 per cent. Growth rates for physicians, nurses and technical assistants over this period were more than double, this again indicating the comprehensiveness of the development of this social infrastructure.

Grants, Loans and Other Incentives to New Industries: One of the long range of objectives of Saudi Arabian socio-economic development is to achieve a greater diversification of its economy. It is expected that greater economic diversification will reduce dependence on oil as the major source of national income, and draw more broadly from the economic potential of all regions of the country. To accomplish this goal the government has encouraged the development of new industries and strengthening existing ones. The specific mechanism used to encourage industrial growth includes subsidies which take the form of grants, long term interest free loans and free land. To facilitate the handling of industrial development programmes in an efficient manner the government established the Saudi Industrial Development Fund (SIDF). Financing industrial projects by the SIDF went up sharply from SR 35 million in 1974 to SR 1,69 million in the following year. In 1979, the amount of loans exceeded SR 7 billion and gradually dropped to 453 million in 1987 (Ministry of Planning, 1987: 198).

Responding to government stimulation, the industrial sector has shown gradual growth since the beginning of the first five-year plan. Industrial licenses as shown in Table 12 grew from 199 in 1970 to 3,698 in 1987 or by an annual average rate of more than 21 per cent. Operating industries increased from 199 in 1970 to 2,050 in 1987. Parallel growth patterns exist for the other indicators of industrial development contained in Table 12.

Direct Restrictions and Control on Industrial Location: The government has attempted to restrict and control the growth of the industrial sector in an effort to keep it in line with patterns of population redistribution on the one hand, while using it as a mechanism to promote population redistribution on the other. To do this the government has constructed the so called industrial cities. These are places built outside main cities and provided with the necessary physical infrastructure to attract industrial development. Industries locating and expanding in these areas have received the largest share of subsidies and incentives, and this has helped to concentrate industry in specific locations. Since the first five-year plan industrial cities have grown rapidly, the allocated area for industrial cities has increased from 5,514 square miles to 13,911 square miles at the end of the third five-year plan.

Housing: Prior to 1970 there was no formal housing policy in Saudi Arabia. During the 1970 - 1975 period severe housing shortages developed as foreign workers and rural to urban migrants concentrated in cities. As a response to the demand for housing, a formal policy became an integral part of the overall socio-economic development plan. In general terms housing objectives emphasize the idea that every family should have a

decent, safe and sanitary dwelling of a standard consistent with its socio-economic level. To meet these objectives and put an end to the shortage in housing supplies, a number of specific instruments have been introduced. These include the construction of public housing units under the direct supervision and guidance of the Ministry of Housing. Fadaak (1989: 108) has shown that more than 17,000 such units have been completed in the cities of Riyadh, Makkah, Jeddah, Almedubag and Alkhobar.

A second major instrument of the housing policy has been the establishment of the Real Estate Development Fund (REDF). Established by Royal Decree in 1974 the REDF promotes the housing policy by providing citizens with two types of loans. Private loans are given to citizens who want to build their own private dwelling, while investment loans are provided to citizens for commercial housing projects. Private loans vary in amount by settlement size and house size. The ceiling for private loans in large urban areas is SR 300,000, in medium size areas SR 240,000 and SR 200,000 in small towns and villages. To ease the burden of the loan and encourage timely repayment, a number of incentives are used: first, loans are repaid in twenty five annual installments; second, loans are made free of interest, and each installment is reduced by 20 per cent for one time payment and a further ten per cent for early settlement. Investment loans are also made interest free, but they have a ceiling of ten million SR and must be repaid in ten years. Between 1974 and 1986 the REDF has provided loans in excess of 4,281 million SR for private and investment loans (Ministry of Planning, 1987: 198).

There are other instruments used to promote the housing policy, but all cannot be mentioned here. There is, for example, a land grant programme which gives free land to citizens of limited income so those citizens can get private loans for construction of a private dwelling.

The Bedouin Population Settlement Programmes: Most existing population settlements in Saudi Arabia have evolved from the sedentarization of the bedouins. This process has taken different forms since the unification of the Saudi state by the late King Abudulaziz. Early efforts to settle this population involved efforts to have them settle around and near oasis areas where they could adopt sedentary agricultural practices. This effort was not developed for social or economic reasons, but rather was grounded in the belief that a nomadic way of life prevented Moslems from performing their religious duties and obligations. With this early effort many bedouins settled in areas of their traditional tribal boundaries called hijar (pl. of hijrah meaning migration) named after the migration of the Prophet Mohammad from Makkah to Medinah in 622 A. D.

The establishment of the hijra of Al-Artawiyah (of Mutair tribe), about 180 miles from Riyadh, in 1912 marked the beginning of government programmes to settle the bedouins. In the eighteen years following this date about 200 hijar were established, some housing as many as 10,000 residents (Shamekh, 1975: 47 and Al-Abbadi, 1981: 209). Some have claimed that these settlements were encouraged for political and military as well as religious reasons. George (1975: 28) has argued, for instance, that settlement enhanced the government's ability to monitor loyalty to Ibn Saud. Others (e.g. Saleh, 1985: 25 - 27) have noted that there was considerable variation in the extent to which various tribes responded to the programme by King Abdulaziz. The Hurb tribe settled more Hijar than any other followed by the Autaibah with 23, and the Shummer and

Mutair with 21. The Ojman settled 17 hijrah and the Quhtan 14, but none of the remaining tribes including the Anaza, Subaai, Al-Murrah, Hutaim, Hajer, Aldwaser, Awazem, Shool and Bani Khalid had more than ten.

During 1930 - 1940 period, no other government-induced bedouin settlements were established. However, the government resumed its effort to settle the nomadic population in 1940 when it started in Wadi Assuhba in Al-Kharj district, located about 80 K.M. south of Riyadh. The objective of this project is to reclaim about 40,000 hectar of watered land through 40 wells. The land was distributed among 1000 families from Al-Murrah and Al-Dwaser tribes. (Al-Khuraiji 1985, p: 26, and Al-Abbadi, 1981, p: 210).

In 1958, the government, also, initiated Wadi Assurhan project located near the Jordanian border. This project represented a governmental relief measure to Anazah and Al-Shararat tribes who suffered heavy loses (about 90% of their livestock) as a result of many successive years of droughts. Due to this environmental condition, members of these tribes expressed a strong desire to settle. The government - besides the relief supplies - provided the bedouins with water pump and seed, and assisted in well digging (Shamekh, 1975, p: 471).

Another induced bedouin settlement is Tabouk project (Al-Abbadi, 1975, p: 138) which come into existence after Wadi Assurhan project and for the same reason; that is, the objective of the Tabouk project was to settle the bedouins of the North (namely, Al-hwaiytat, Bani Atiyah, Anazah, Ashararath and Ruwallah) who faced heavy loses in their live stock, the project was designed to reclaim agricultural and estimated to be around 10,000 hectares and to settle 2407 families, the settlers were provided with agricultural tools and other related subsidies.

The last government project to settle bedouins is the King Faisal model project at Haradh. The project covers an area of 40,000 K.M. long and 1 K.M. wide located about 240 K.M. to the southeast of Riyadh. The aim of this project is to reclaim 40,000 hectares of desert land and to settle 1000 families of Al-Murrah tribe. Furthermore, the project aims at establishing a model farm for experimentation and training the bedouin settlers (Shamekh, 1975, p: 26).

The above mentioned projects represent the government's direct effort to settle bedouin population over the 1910-1970 period. However, another type of bedouin settlement, aside from the government induced type, took place during the same period. This is what is referred to as the voluntary or spontaneous bedouin settlement which took place as a result of the free will of the bedouins to settle without any direct influence of the government. Some authors have argued (see Al-Abbadi, 1981, p: 211) that such type of settlements was found to be more successful than the bedouin settlements induced by the government. This type of bedouin settlements took place mainly after 1930 as a result of bedouin migration from early hijar. A number of factors have contributed to the success of the spontaneous bedouin settlement (Al-Abbadi, 1981, p: 211-12) such as the severe drought during the 1950s and 1960s. The termination of the hema (tribal territory) system encouraged bedouin to settle spontaneously. Furthermore, the decline of political power of the tribe and the rise of the central government power were major determinants of settling the bedouins spontaneously. The discovery of oil has contributed

indirectly to the settling of bedouin population near the oil fields in the oil towns of Eastern province; bedouins got attracted by new economic opportunities in oil industries. Cultural factors such as the shift from camel raising to sheep raising brought about by the declining importance of camel as a means of transportation, along with the abolishing of bedouin raiding of caravan or other tribes by the government, had led the bedouins to abandon nomadism.

The third plan recognizes the rights of the bedouins to choose their way of life (Ministry of Planning, 1980: 378). For those bedouins who wish to settle land, equipment and training are provided, while programmes providing education and medical attention are to be designed for those who wish to continue their traditional way of life. The fourth and fifth plans through the village clusters programme (see above) has extended municipal type services to many bedouin areas including those where semi-nomadic groups live. Over the next 20 years some 200 village clusters will be formed which will help to improve the socio-economic conditions of those wishing to remain bedouins.

POLICY IMPLEMENTATION AND EVALUATION

Essentially two factors appear to have played an important role in the successful implementation of population spatial distribution policies in Saudi Arabia. Both of these factors reflect the rational approach to planning which has permeated the government's efforts. First, prior to formulating plans and implementing policy the government made a concerted effort to gather available information and analyze it so they could know and understand local needs and conditions. During the first five-year plan, five extensive regional studies were conducted to discover the particular conditions prevailing in each region. These studies formed a baseline and provided valuable information on the uniquenesses and similarities of regions which have been employed in subsequent five-year plans to develop and implement many specific programmes.

Second, the government has followed a prudent course in balancing its ability to pay for projects, particularly those physical and social infrastructure projects which are capital intensive, with their implementation and development. Many of these large scale projects were initiated during the booming years of world oil markets (1970 - 1983) which spanned the first two five-year plans and one half of the third development plan. During this period Saudi revenues grew from SR 2,175 million to SR 171,014 million, and this allowed the government to pay for many of its projects without incurring large external debts and not paying large sums in non-productive interest payments. Following 1983 and the decline in the oil boom government expenditures on infrastructure declined, but the government has maintained that this merely reflects the completion of most projects.

Thus, researchers in government and academic circles generally agree that population spatial distribution policies have achieved considerable success in the Kingdom. In fact, some researchers (e.g., Fadaak, 1989: 110) have demonstrated that policies have actually exceeded their goals. In this sense, however, it is instructive to note that until 1983, a period in which most infrastructure projects were completed, and again in 1989, the government perceived its current population spatial distribution to be only

partially appropriate (United Nations, 1983: 247 and 1989: 346). This suggests that either the goals of policies have not been satisfactorily achieved or that the goals have been revised. This may reflect the fact that despite substantial achievements there still remains wide spread disparities in terms of physical and social infrastructures among regions in Saudi Arabia. Ministry of Municipalities and Rural Affairs (1989: 5) has shown that certain cities and some regions have a higher proportion of social and physical infrastructures than others, and this certainly contradicts the first goal of socio-economic development discussed above which puts heavy emphasis on the equitable distribution of services and socio-economic opportunities.

These disparities will not be easy to completely erase. They are a product of the very low population density, the uneven distribution of settlements, the long distances separating settlements along with the existence of many small scattered settlements throughout most parts of the country. Currently the Ministry of Municipalities and Rural Affairs (1989:1) is working in collaboration with the United Nations to develop a national spatial strategy as a means to direct development toward different parts of the national space and to achieve balanced growth. It is hoped that the implementation of this strategy will further reduce remaining regional disparities.

TABLE 1

TOTAL POPULATION, URBAN POPULATION, AND URBAN POPULATION PERCENTAGE

Year	Total	Urban	% Urban
1950	3,205	508	15.9
1960	4075	1211	29.7
1970	5745	2796	48.7
1975	7252	4255	58.7
1980	8960	5989	66.8
1985	10823	7899	73.0
1990	12908	9980	77.3

Source: United Nations. 1982. Demographic Indicators of Countries. New York: p. 322.

TABLE 2

TOTAL POPULATION GROWTH, URBAN POPULATION GROWTH, RURAL POPULATION GROWTH AND THE RATE OF RURAL TO URBAN POPULATION GROWTH

Year	Population Growth	Urban Growth	Rural Growth	Rural/Urban Growth Ratio
1950-60	21.4	58.1	5.9	10.2
1960-70	29.0	56.7	2.9	5.1
1970-75	20.7	34.3	1.6	4.7
1975-80	19.1	29.1	-1.0	-3.4
1980-85	17.2	24.2	-1.6	-6.6
1985-90	16.2	21.1	.2	.9

Source: United Nations. 1982. Demographic Indicators of Countries. New York: p. 322.

TABLE 3

PER CENT CHANGE IN PER CENT URBAN

Periods	Change Rate	Periods	Change Rate
1950-55	8.9	1975-80	6.8
1960-65	8.6	1980-85	5.5
1965-70	8.2	1985-90	4.7
1970-75	8.4		

Source: United Nations. 1982. Demographic Indicators of Countries. New York: p. 227.

TABLE 4

URBAN POPULATION AND NUMBER OF CITIES BY SIZE-CLASS FOR SOME SELECTED YEARS

YEAR	CLASS I		CLASS II		CLASS III		CLASS IV		TOTAL	
1940	(10)	238							(10)	238
1950 A	( )	400	(1)	100					( )	500
1960 A	( )	524	(3)	476					( )	1000
1970 A	( )	682	(5)	995					( )	1677
1974 B	(82)	99869	(9)	1795	(2)	1234			(82)	3130
1987 C	(88)	1658	(9)	222	(1)	742	(2)	2729	(102)	1629

Source: Derived from: A. Davis, K. 1969. World Urbanization 1950-1970. Westport, Connecticut: Greenwood Press, p. 102.

B. Saudi Arabia, Central Department of Statistics. 1975. Population Census, 1974. Dammam: Al-Traiki Printing Press.

C. Saudi Arabia, MOMORA (Ministry of Municipalities and Rural Affairs). 1987. Urban Survey. Riyadh.

Class I = (Less than 100,000)
Class II = (100,000-499,999)
Class III = (500,000-999,999)
Class IV = (100,0000 and Over)

TABLE 5
DISTRIBUTION OF URBAN AREAS BY POPULATION SIZE AND REGIONS IN 1974 AND 1987

Population size (in thousands)	Region					
	Central	Eastern	Northern	Southern	Western	Total
			1974			
2.5 - 4.9	13 (50.0)	1 (6.7)	2 (15.5)	1 (10.0)	6 (33.3)	23 (28.0)
5.0 - 9.9	8 (26.9)	1 (6.7)	4 (30.8)	3 (30.0)	5 (27.8)	20 (24.4)
10.0 - 14.9	2 (7.7)	3 (20.0)	3 (23.1)	2 (20.0)	1 (5.6)	11 (13.4)
15.5 - 29.9	2 (7.7)	6 (40.0)	2 (15.4)	- -	2 (11.1)	12 (144.6)
30 - 99	1 (3.8)	2 (13.3)	2 (15.4)	4 (440.0)	- -	9 (11.0)
100 -499	- -	2 (13.3)	- -	- -	3 (16.3)	5 (6.1)
500 - Over	1 (3.8)	- -	- -	- -	1 (5.6)	2 (2.4)
Total	26 (100)	15 (100)	13 (100)	10 (100)	18 (100)	82 (100)
			1987			
2.5 - 4.9	13 (35.1)	- -	2 (11.7)	2 (11.7)	- -	17 (16.0)
5.0 - 9.9	7 (19.5)	1 (9.1)	3 (17.6)	2 (11.7)	5 (25.0)	18 (17.6)
10.0 - 14.9	6 (16.0)	- -	3 (17.6)	6 (35.2)	8 (40.0)	23 (22.5)
15.5 - 29.9	4 (10.8)	5 (45.4)	4 (23.5)	3 (17.6)	2 (10.0)	18 (17.6)
30 - 99	4 (10.8)	1 (9.1)	3 (17.6)	3 (17.6)	1 (5.0)	12 (11.7)
100 -499	2 (5.4)	4 (36.3)	2 (11.7)	1 (5.8)	2 (10.0)	3 (2.9)
500 - Over	1 (2.7)	- -	- -	- -	2 (10.0)	
Total	37 (100)	11 (100)	17 (100)	17 (100)	20 (100)	102 (100)

Source: A. Saudi Arabia, Central Department of Statistics. 1975. Population Census, 1974. Dammam: Al-Traiki Printing Press.

B. Al-Shawaf and Zahid. 1988. "Population and Development in the Development of Saudi Cities". Al baladiyat, No. 16, November 1988. pp. 48-55.

C. Saudi Arabia, MOMORA (Ministry of Municipalities and Rural Affairs). 1987. Urban Survey. Riyadh.

TABLE 6

PRODUCTION AND SUPPLY OF ELECTRICITY

Year	Installed Capacity (KW)	Usable Capacity (KW)	Peak Load (KW)	Power Generated (Million KWH)	Power sold (Million KWH)			Number of Subscriber (Thousands)	Apparent Consumption per Subscriber (KWH/Year)
					Industrial Purposes	Residential Commercial and other Purposes	Total		
1970	418	344	300	1,825	1,128	562	1,690	216	2,602
1971	505	418	345	2,055	1,263	639	1,902	233	2,742
1972	615	512	438	2,390	1,404	798	2,202	248	3,218
1973	800	657	577	2,908	1,722	956	2,678	265	3,608
1974	1,152	938	722	3,672	2,191	1,209	3,400	304	3,977
1975	1,349	1,173	848	4,270	2,173	1,587	3,760	352	4,509
1976	2,083	1,780	1,140	6,389	3,025	2,300	5,323	403	5,707
1977	2,829	2,367	1,633	7,263	3,142	3,223	6,365	466	5,916
1978	4,071	3,210	2,161	9,713	4,064	4,402	8,466	582	7,504
1979	5,506	4,124	2,955	15,470	6,613	6,836	13,449	727	9,403
1980	7,033	5,904	3,986	18,909	6,841	10,595	17,437	872	12,151
1981	8,566	7,359	5,227	25,061	7,626	14,018	21,644	1,042	13,453
1982	11,579	9,001	6,309	31,014	10,042	16,589	26,631	1,212	13,607
1983	13,318	10,704	7,708	35,307	8,731	22,446	31,177	1,391	16,137
1984	14,578	11,853	8,503	39,884	9,296	27,690	36,986	1,584	17,481
1985	16,744	13,923	9,424	44,502	11,656	30,248	41,904	1,758	17,206
1986	17,773	14,762	10,252	49,481	12,029	33,837	45,866	1,896	17,847
1987	18,215	14,909	10,889	54,178	12,444	36,462	48,906	2,043	17,847
Average	28.1	27.9	26.4	25.0	16.9	32.2	25.0	16.0	14.0

Source: Saudi Arabia, Ministry of Planning. 1987. Achievements of the Development Plans 1970-1989. Riyadh: MOP Press. pp. 250-251.

TABLE 7

WATER SUPPLY FROM DESALINATION PLANTS

Year	Rated Capacities of Desalination Plants													
	Jeddah	Dubai	Al-Wajh	Al- Khobar	Al-Khafji	Ummlajj	Farsan	Haql	Hadinah Yanbu	Jubail	Rabigh	Al Barq	Total	Estimated Water Supply
1970	5.00	0.06	0.06	—	—	—	—	—	—	—	—	—	5.12	4.60
1971	5.00	0.06	0.06	—	—	—	—	—	—	—	—	—	5.12	4.60
1972	5.00	0.06	0.06	—	—	—	—	—	—	—	—	—	5.12	4.60
1973	5.00	0.06	0.06	—	—	—	—	—	—	—	—	—	5.12	4.60
1974	5.00	0.06	0.06	7.50	0.12	—	—	—	—	—	—	—	12.74	10.60
1975	5.00	0.06	0.06	7.50	0.12	—	—	—	—	—	—	—	12.74	10.50
1976	5.00	0.06	0.06	7.50	0.12	0.12	—	—	—	—	—	—	12.86	10.50
1977	5.00	0.06	0.06	7.50	0.12	0.12	—	—	—	—	—	—	12.86	10.20
1978	18.50	0.06	0.06	7.50	0.45	0.12	—	0.12	—	—	—	—	26.69	17.80
1979	28.50	0.18	0.18	7.50	0.45	0.12	0.13	0.12	—	—	—	—	37.06	25.60
1980	38.50	0.18	0.18	7.50	0.45	0.12	0.13	0.12	—	—	—	—	47.18	37.70
1981	38.50	0.18	0.18	7.50	0.45	0.12	0.13	0.12	25.00	30.00	—	—	102.18	49.70
1982	88.50	0.18	0.18	7.50	0.45	0.35	0.13	0.12	25.00	30.00	0.24	—	152.65	98.30
1983	88.50	0.18	0.18	57.50	0.45	0.35	0.13	0.12	25.00	240.00	0.24	0.50	413.15	330.60
1984	88.50	0.18	0.18	57.50	0.45	0.35	0.13	1.60	25.00	240.00	0.24	0.50	413.15	330.60
1985	88.50	0.18	0.18	57.50	0.45	0.35	0.13	1.60	25.00	240.00	0.24	0.50	413.15	330.60
1986	88.50	0.18	0.18	57.50	6.40	1.40	0.13		25.00	240.00	0.24	0.50	421.63	337.30
1987	88.50	0.18	0.18	57.50	6.40	1.40	0.13		25.00	240.00	0.24	0.50	421.63	337.30

Source: Saudi Arabia, Ministry of Planning. 1987. Achievements of the Development Plans 1970-1987. Riyadh: MOP Press. p. 253.

TABLE 8

ROAD AND RAILROAD TRANSPORTATION

Year	Road Development		Cumulative Number of Vehicles Registered Since 1968 (Thousands)				
	Length of Paved Roads (KMS)	Length of earth-surfaced roads (KMS)	Private cars	Taxis	Buses	Trucks,Vans,Etc	Total
1970	8,021	3,487	28.1	9.2	1.2	21,4	59
1971	8,323	4,174	36.9	11.4	1.7	29.1	79
1972	8,614	4,963	48.7	13.7	2.6	45.4	110
1973	8,976	5,743	71.6	19.6	3.9	78.0	173
1974	9,660	6,770	119.2	31.4	6.3	128.2	285
1975	11,243	8,510	184.2	39.9	7.7	212.6	444
1976	13,120	11,193	288.1	56.4	10.8	349.2	704
1977	15,038	13,307	421.8	75.6	14.1	531.4	1,042
1978	17,200	16,948	558.2	91.7	17.0	695.9	1,362
1979	18,900	20,119	717.5	104.5	19.5	711.7	1,653
1980	20,238	24,186	914.5	105.5	23.9	954.1	1,998
1981	21,154	28,587	1,155.5	108.0	29.9	1,169.6	2,463
1982	21,926	33,310	1,463.4	108.0	32.5	1,407.7	3,011
1983	26,052	38,644	1,748.4	108.0	35.1	1,669.2	3,560
1984	27,899	43,504	1,932.9	109.4	38.8	1,826.5	3,907
1985	29,655	52,226	2,053.9	111.8	40.7	1,925.5	4,131
1986	30,661	57,602	2,131.3	112.2	44.1	1,979.3	4,266
1987	30,895	61,500	2,215.1	117.2	46.8	2,036.2	4,415
Average	9.5	19.5	11.9	16.3	23.5	31.9	30

Source: Saudi Arabia, Ministry of Planning. 1987. Achievements of Development Plans 1970-1987. Riyadh: MOP Press. pp. 255-256.

TABLE 9

DEVELOPMENT IN EDUCATION (MALES AND FEMALES)

Year	Number of schools	Number of teachers (full time)	NUMBER OF STUDENTS (THOUSANDS)										
			Pre-school	Elementary Education	Intermediate education	Secondary Education	Higher education	Training Abroad	Teacher Training	Technical Education	Adult Education	Other	Total
1970	3,107	23,118	4	397	61	16	7	2	11	1	43	5	547
1971	3,283	23,856	6	428	70	20	8	2	14	1	43	5	597
1972	3,659	27,627	7	475	84	23	9	2	15	1	46	6	568
1973	4,254	31,907	8	521	100	27	11	2	14	1	55	8	747
1974	4,697	37,942	10	578	116	33	15	3	14	2	72	10	853
1975	5,634	43,777	14	634	137	42	19	5	15	3	100	14	983
1976	6,536	51,176	16	686	155	49	26	8	15	4	95	12	1,066
1977	7,497	58,201	16	726	178	60	32	8	15	5	99	12	1,151
1978	8,695	63,557	18	753	197	70	41	9	20	5	106	9	1,228
1979	10,018	70,468	23	803	220	84	44	10	22	5	122	7	1,340
1980	11,070	78,309	24	862	245	93	48	10	22	6	142	9	1,461
1981	11,379	86,077	28	930	257	100	56	12	21	7	136	15	1,562
1982	12,619	95,233	35	998	274	116	64	13	20	8	146	21	1,895
1983	13,449	104,733	41	1,074	301	130	75	11	18	10	139	30	1,829
1984	14,048	126,368	47	1,167	335	147	80	10	17	11	138	30	1,982
1985	15,079	137,225	55	1,242	373	158	94	10	17	11	159	20	2,149
1986	15,093	150,649	68	1,317	388	172	104	8	19	12	160	32	2,288
1987	15,353	154,414	60	1,460	432	199	113	10	23	13	151	25	2,486
Average	11.0	12.5	17.0	7.6	11.9	15.9	18.7	11.8	2.9	18.3	8.5	11.3	9.2

Source: Saudi Arabia, Ministry of Planning. 1987. Achievements of Development Plans 1970-1987. Riyadh: MOP Press. p. 267.

TABLE 10

GRADUATES AT EACH LEVEL OF EDUCATION (MALES & FEMALES)

Year	General Education							Higher Education		
	Elementary	intermediate	Secondary	Teacher Training	Special Education	Other	Total	Graduates from local universities	Graduates from Abroad	
1970	29,133	12,538	2,806	2,122	61	2,205	48,865	808		
1971	32,713	8,519	2,916	3,126	59	1,611	48,944	833	310	
1972	38,116	12,248	3,529	4,642	102	2,615	61,252	1,145	306	
1973	42,953	18,058	5,198	5,266	143	2,509	74,127	1,263	134	
1974	55,093	22,839	5,874	4,753	116	2,667	91,342	1,996	404	
1975	59,567	21,838	7,246	4,951	182	3,358	97,142	1,909	202	
1976	72,972	33,282	10,562	4,942	189	2,298	124,246	2,223	171	
1977	84,782	38,650	14,190	3,575	193	2,657	144,047	3,210	186	
1978	89,775	42,428	14,216	4,578	194	2,689	153,880	3,875	249	
1979	88,316	37,468	15,485	5,288	120	2,745	149,422	4,023	335	
1980	93,875	40,094	15,568	5,727	131	3,279	158,674	4,621	503	
1981	96,031	53,132	19,902	5,369	154	4,318	178,906	5,951	639	
1982		48,330	21,008	6,565	185	5,292	81,380	6,455	2,120	
1983		53,550	24,000	7,100	240	6,100	90,990	7,711	2,334	
1984		60,373	28,693	3,524	108	6,517	99,215	9,635	2,645	
1985		69,803	30,493	2,311	90		102,697	11,145	2,800	
1986		80,753	37,117	2,225	118		120,213	12,501	2,800	
1987										

Source: Saudi Arabia, Ministry of Planning. 1987. Achievements of Development Plans 1970-1987. Riyadh: MOP Press. p. 276.

TABLE 11

HEALTH FACILITIES

Year				Medical & Para-Medical Personnel				
	No. of Hospitals, dispensaries & health centers	Number of Hospitals	Number of Hospital beds	Physicians	Nursing Staff	Technical assistants (including pharmacists	Other Tehnicians	T
1970	566	47	7,165	789	2,253	854	542	
1971	570	49	7,942	817	2,268	928	614	
1972	584	51	8,132	1,081	2,962	1,047	733	
1973	620	54	8,870	1,268	3,179	1,227	918	
1974	667	58	9,070	1,900	4,234	1,507	1,063	
1975	693	62	9,250	2,275	4,721	1,737	1,186	
1976	785	64	9,450	2,696	5,666	1,943	1,313	1
1977	812	64	10,182	2,820	5,740	2,014	1,408	1
1978	860	67	10,412	3,212	6,081	2,359	1,381	1
1979	891	67	10,978	3,408	6,166	2,673	1,417	1
1980	958	69	11,968	3,793	6,710	3,077	1,366	1
1981	1,005	70	13,066	4,618	8,881	3,802	1,505	1
1982	1,045	72	14,333	5,123	9,729	4,280	1,645	2
1983	1,158	74	15,387	6,453	12,367	5,097	2,109	2
1984	1,205	86	17,961	7,490	14,919	6,454	1,509	3
1985	1,411	105	20,796	9,257	20,707	7,978	2,108	4
1986	1,572	141	23,862	10,359	24,528	9,095	2,410	4
1987	1,590	150	24,644	10,845	24,801	9,261	2,462	4
Average	6.5	5.7	7.2	16.8	15.1	15.6	8	

Source: Saudi Arabia, Ministry of Planning. 1987. Achievements of Development Plans 1970-1987. Riyadh: MOP Press. pp. 289-290.

TABLE 12

INDUSTRIAL LICENCES AND OPERATING FACTORIES.

Year	Number of Local Licences	Number of Operating Factories	Total Capital of Industrial Licences SR.Millions	Total Capital of Operating Factories (SR.Millions)	Total Manpower of Industrial Licences	Total Manpower of Operating Factories
1970	199	199	2,379	2,379	9,012	9,012
1971	232	232	2,617	2,617	10,739	10,739
1972	266	266	3,226	3,226	13,246	13,246
1973	293	292	3,471	3,471	14,789	14,189
1974	358	357	5,160	5,108	21,010	20,639
1975	466	461	6,681	6,132	26,295	25,199
1976	632	618	10,696	8,822	36,405	33,750
1977	884	829	18,041	12,045	54,987	44,353
1978	1,132	996	28,349	24,231	84,803	72,161
1979	1,405	1,182	38,548	32,034	101,283	83,650
1980	1,784	1,389	63,577	42,042	128,945	96,023
1981	2,148	1,577	97,566	52,669	150,726	105,951
1982	2,422	1,683	111,687	53,851	163,023	109,919
1983	2,740	1,769	121,766	54,880	178,360	113,334
1984	3,077	1,817	128,355	55,431	186,384	117,360
1985	3,310	1,864	134,984	59,781	197,613	126,204
1986	3,639	2,034	137,300	60,100	204,367	127,560
1987	3,698	2,050	141,344	91,518	208,319	133,265
Average	21.4	16.4	33.6	26.4	23.2	19.0

Source: Saudi Arabia, Ministry of Planning. 1987. Achievements of Development Plans 1970-1987. Riyadh: MOP Press. pp. 289-290.

REFERENCES

Al-Abbadi, A. 1981. Nomadic Settlements in Saudi Arabia: A Socio-Historical and Analytical Case Study. Ph.D. dissertation. East Lansing: Michigan State University.

Al-Ankary, K. 1987. "Patterns of City Size". In Saudi Cities: Distribution and Morphology. Saudi Arabia: Department of Geography (KSU), Riyadh, pp. 91-105.

Al-Ankary, K., and E.S. Bushra. 1989. "Urban Growth and Urbanization in Saudi Arabia". In Urban and Rural Profiles in Saudi Arabia, edited by K.M. Al-Ankary and El-S.El-Bushra. Berlin, Stuttgrat: Gebruder Borntraeger, pp.3-13.

Barth, H.K, and F. Quiel. 1987. "Riyadh and its Development". GeoJournal. Vol.15. pp.39-46.

Clark, J. 1971. Population, Geography and the Developing Countries. Oxford: Pergamon Press.

Davis, K. 1969. World Urbanization 1950-1970. Westport. Connecticut: Greenwood Press.

Fadaak, T. 1989. "Urban Housing Policy in Saudi Arabia". In Urban and Rural Profiles in Saudi Arabia, edited by K.M. Al-Ankary and El-S. El-Bushra. Berlin, Stuttgrat: Gebruder Borntraeger, pp:107-112.

George, A. 1975. "Bedouins Settlement in Saudi Arabia". Middle East International. No.51.

Al-Hathlul, S., and N. Edadan 1989. "Urban Primacy in Saudi Arabia". (Unpublished Paper).

Al-Khalifa, A. 1985. Ecological Expansion in Saudi Arabia: A Case Study in Socio-Economic Development. Ph.D. dissertation. Austin: University of Texas.

Al-Khalifa, A., and W.P. Frisbie. 1989. "The Inter-dependence of Core and Periphery of The Saudi Arabian Communities: A Test of the Ecological Expansion Theory". In Urban and Rural Profiles in Saudi Arabia, edited by K.M. Al-Ankary and El-S. El-Bushra. Berlin, Stuttgart: Gebruder Borntraeger, pp. 15-22.

Al-Khuraiji, A. 1985. "Social Policy of King Abdulaziz in The Settling of Bedouins". International Conference on The History of King Abdulaziz. Riyadh, Saudi Arabia.

Makki, M. 1986. "Regional and Urban Population Size Weights in Saudi Arabia: 1962-1974". GeoJournal, Vol.13, no.2.

Makki, M. 1987. "The Distribution of Cities by Size Class in the Kingdom of Saudi Arabia". In Saudi Cities: Distribution and Morphology. Riyadh: Department of Geography (KSU), pp.67-92.

Richardson, H. 1983. "Population Distribution Policies". In Population Distribution, Migration and Development: Proceedings of the Expert Group on Population Distribution, Migration and Development. Hammamet: Tunisia. New York: United Nations, pp. 262-293.

Al-Ruithy, M. 1979. Population of The Kingdom of Saudi Arabia: A Geographic and Demographic Study. Riyadh.

Saleh, A. 1985. "Settling of Bedouins in the Region of King Abdulaziz". International Conference on The History of King Abdulaziz. 1-5 December 1985. Riyadh.

Saudi Arabia. Central Department of Statistics. 1975. Population Census, 1974 Dammam: Al-Traiki Printing Press.

_____. **Central Planning Organization**. 1970. Development Plan. Riyadh.

_____. **Ministry of Industry and Electricity**. 1982. Industrial Cities of the Kingdom. Riyadh : MOIE.

_____. **Ministry of Municipalities and Rural Affairs (MOMORA)**. 1987: Urban Survey. Riyadh.

_____. **Ministry of Municipalities and Rural Affairs (MOMORA), and United Nations**. 1989. "National Spatial Strategy". Riyadh.

_____. **Ministry of Planning**. 1975. Second Development Plan 1975-1980. Jeddah: Dar Okaz.

_____._____. 1980. Third Development Plan 1980-1985. Riyadh: MOP Press.

_____._____. 1985. Fourth Development Plan 1985-1990. Riyadh: MOP Press.

_____._____. 1987. Achievements of The Development Plans 1970-1987. Riyadh: MOP Press.

_____._____. 1990. Summary of the Fifth Development Plan 1990-1995. Riyadh: MOP Press.

Shamekh, A. 1975. Spatial Patterns of Bedouins Settlements in Al-Oasim Region, Saudi Arabia. Ph.D. dissertation. Lexington: University of Kentucky.

Al-Shawaf, S., and Z. Zahid. 1988. "Population and Development in the Development of Saudi Cities". Albaladiyat, No.16, November 1988. pp.42-59.

Twitchell, K.S. 1947. Saudi Arabia with an Account of the Development of its Natural Resources. New York: Greenwood Press Publishers.

United Nations. 1982. Demographic Indicators of Countries. New York.

_____. 1983. World Population Trends, Population and Development Interrelation and Population Policies. New York.

_____. 1989. World Population Trends and Policies: 1989 Monitoring Report. New York.