

**ECONOMIC AND SOCIAL COMMISSION FOR WESTERN ASIA (ESCWA)**

**THE DEMOGRAPHIC PROFILE OF ARAB COUNTRIES**  
**AGEING OF RURAL POPULATIONS**

United Nations

Distr.  
LIMITED  
E/ESCWA/SDD/2007/Booklet.1  
31 December 2007  
ORIGINAL: ENGLISH

**ECONOMIC AND SOCIAL COMMISSION FOR WESTERN ASIA (ESCWA)**

**THE DEMOGRAPHIC PROFILE OF ARAB COUNTRIES**  
**AGEING OF RURAL POPULATIONS**

United Nations  
New York, 2007

07-0531

## Introduction

The rapid demographic transition and, in particular, the fast decline in mortality rates during the latter half of the twentieth century has caused age-structural changes and ageing of populations in many developing countries.<sup>1</sup> The rapid growth of economies in East Asia in recent years, which has resulted in substantial increases of per capita income and reductions of poverty, can be largely attributed to the favourable role played by the age-structural changes of the population in that region. Various studies have revealed that the shift in age structures has had a profound impact on economic growth through savings and investments.<sup>2</sup> Consequently, there is a strong need to examine demographic transitions, age-structural changes and ageing of populations at national and regional levels against the backdrop of planning for the economic development and welfare of the population in general and of the elderly in particular.

This issue of *The Demographic Profile of Arab Countries* highlights the course of fertility and mortality transitions, and examines trends in rural and urban populations in the 22 countries of the Arab region for the period 1980-2050. Additionally, it exposes age-structural changes and ageing of rural populations for the period 1980-2015 in eight selected Arab countries, namely, Egypt, Iraq, Jordan, Morocco, Tunisia, Syrian Arab Republic, Somalia and Yemen. While the process of ageing in the Arab region is comparatively a recent phenomenon, there is evidence to suggest that population ageing in rural areas began considerably sooner in many countries. Within that context, the two most important determinants of ageing of rural populations in developing countries are rural-to-urban migration of the working-age population in search of employment, and urban-to-rural migration of the population aged 65 and over (65+) after retirement from the workforce, both of which accelerate rural ageing. The prevailing discussion is extended on demographic transition, age-structural change and ageing in two ways, namely: (a) spatial variations of the selected eight Arab countries aimed at shedding light on the migration element of age-structural change and at focusing attention on the working-age population with a strong propensity to migrate to urban areas;<sup>3</sup> and (b) compositional differences within the age groups of interest, namely, 15-64 and 65+. These two issues are examined in the first two sections of this paper. The final section focuses on the main developmental challenges posed by rural-to-urban migration and rural ageing; and presents conclusions and recommendations, highlighting relevant and sound policies.

## Data and methodology

The revised population estimates of the United Nations given by age and sex from 1980 to 2050 are used to study ageing and to examine fertility and mortality trends in the 22 countries of the Arab region.<sup>4</sup> In the absence of a suitable breakdown of rural-urban population groups by age distributions and given the vital need to understand rural-to-urban migration patterns in broad age groups, this investigation attempted to split the available population estimates by rural-urban residence for the selected eight Arab countries under study. Unfortunately, the analysis of age-specific trends of rural/urban populations for rural population projections by age was hampered by limited data on rural-urban residences for these countries at the base period. Consequently, two proxies were used to obtain rural population projections, namely: (a) the trend of total rural population for each of the selected eight countries over a comparatively short period, in other words up to 2015; and (b) the rural population age distribution of each of the selected eight countries projected to 2015, with the assumption of a constant age structure of rural population at the base year (1980).<sup>5</sup> By

---

<sup>1</sup> Within that context, ageing is defined as the growth in the proportion of persons aged 65 and over (65+).

<sup>2</sup> See, for example, A. Mason, "Population change and economic development: what have we learned from the East Asia experience?", *Applied Population and Policy*, vol. 1, No. 1 (2003), pp. 3-14; and K. Navaneetham, "Age structural transition and economic growth: evidence from South and Southeast Asia", *Working Paper 337* (Asian Meta Centre for Population and Sustainable Development Analysis, August 2002).

<sup>3</sup> This aspect of the investigation is limited to urban areas for reasons that are expounded below in this report.

<sup>4</sup> Department of Economic and Social Affairs (DESA), *World Population Prospects: The 2006 Revision* (Population Division, 2007), which is available at: [www.un.org/esa/population/publications/wpp2006/wpp2006.htm](http://www.un.org/esa/population/publications/wpp2006/wpp2006.htm).

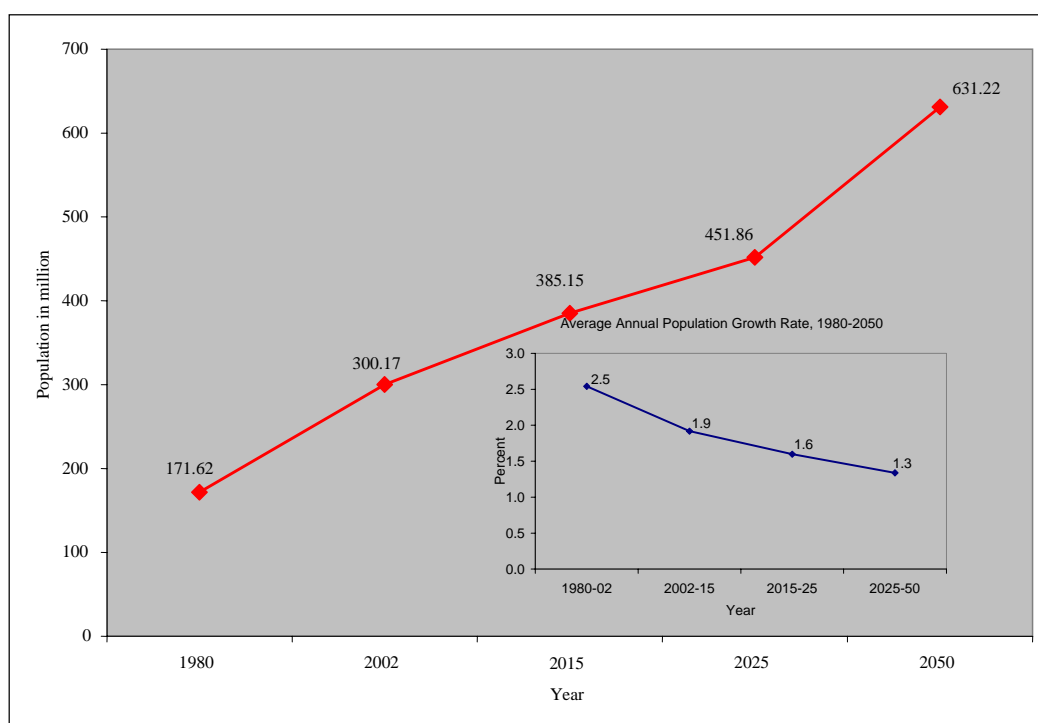
<sup>5</sup> There are three reasons for assuming a stationary rural population age structure over the period 1980-2015, namely: (a) in most Arab countries, there has been little change in rural fertility in the past and the prospects of its appreciable drop in the next 10 years are remote; (b) despite a fall in infant mortality rates in rural areas, life expectancy is not projected to increase significantly in most rural populations of the region, and major declines in both fertility and mortality in Arab countries have been largely limited to urban areas; and (c) in the absence of reliable data, the best and perhaps the safest course for making rural population projections by age is to assume a constant rural population age structure for the period 1980-2015.

underscoring the migration of youth and adult populations from rural areas and the influx of returning elderly populations, this assumption serves to provide some analytical foundation on the age-structural transition of urban populations. The urban population age distribution in broad age groups for each of the selected eight countries was obtained as a residual from the respective age-specific estimates of the total population (rural and urban) as revised by the United Nations (see annex tables 8 and 9).<sup>6</sup> Moreover, the age-structural transitions for urban populations of the eight countries under study are provided in addition to the analysis of their growth rates over the period 1980-2015 of total populations for three broad age-groups, namely, 0-14, 15-64 and 65+.

### Population size and growth

According to the revised population estimates of the United Nations, the population of Arab countries rose from 171.6 million in 1980 to 300.2 million in 2002.<sup>7</sup> In terms of medium variant projections, the population of the 22 countries of the Arab region is expected to reach 385.2 million in 2015 and 631.2 million in 2050. The average, exponential growth rate of 2.6 per cent per annum in the period 1980-2002 could drop to 1.9 per cent per annum in 2002-2015, and is likely to fall after 2025 to approximately 1.3 per cent per annum during the period 2025-2050 (see figure I).

**Figure I. Total population and growth rate of Arab countries, 1980-2050**

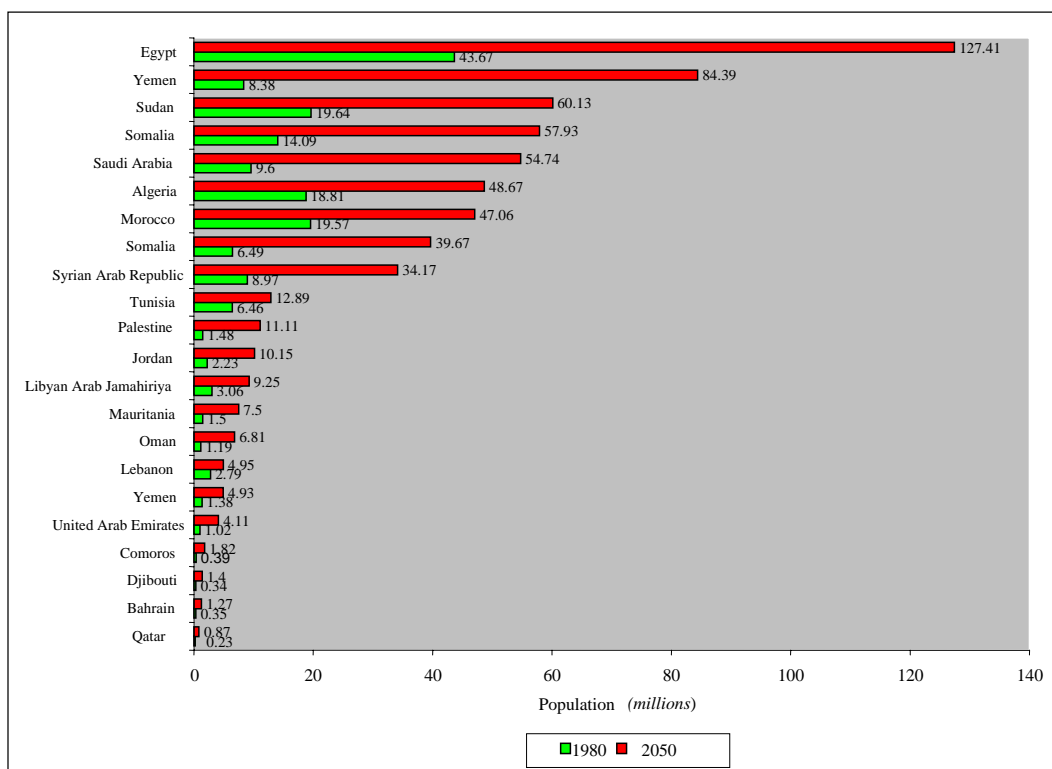


Source: ESCWA, based on Department of Economic and Social Affairs (DESA), *World Population Prospects: The 2006 Revision* (Population Division, 2007), which is available at: [www.un.org/esa/population/publications/wpp2006/wpp2006.htm](http://www.un.org/esa/population/publications/wpp2006/wpp2006.htm). See annex tables 1 and 2.

<sup>6</sup> Department of Economic and Social Affairs (DESA), *World Population Prospects: The 2006 Revision* (Population Division, 2007), which is available at: [www.un.org/esa/population/publications/wpp2006/wpp2006.htm](http://www.un.org/esa/population/publications/wpp2006/wpp2006.htm).

<sup>7</sup> Ibid.

**Figure II. Total population of Arab countries, 1980 and 2050**  
(Millions)



Source: ESCWA, based on Department of Economic and Social Affairs (DESA), *World Population Prospects: The 2006 Revision* (Population Division, 2007), which is available at: [www.un.org/esa/population/publications/wpp2006/wpp2006.htm](http://www.un.org/esa/population/publications/wpp2006/wpp2006.htm). See annex table 1.

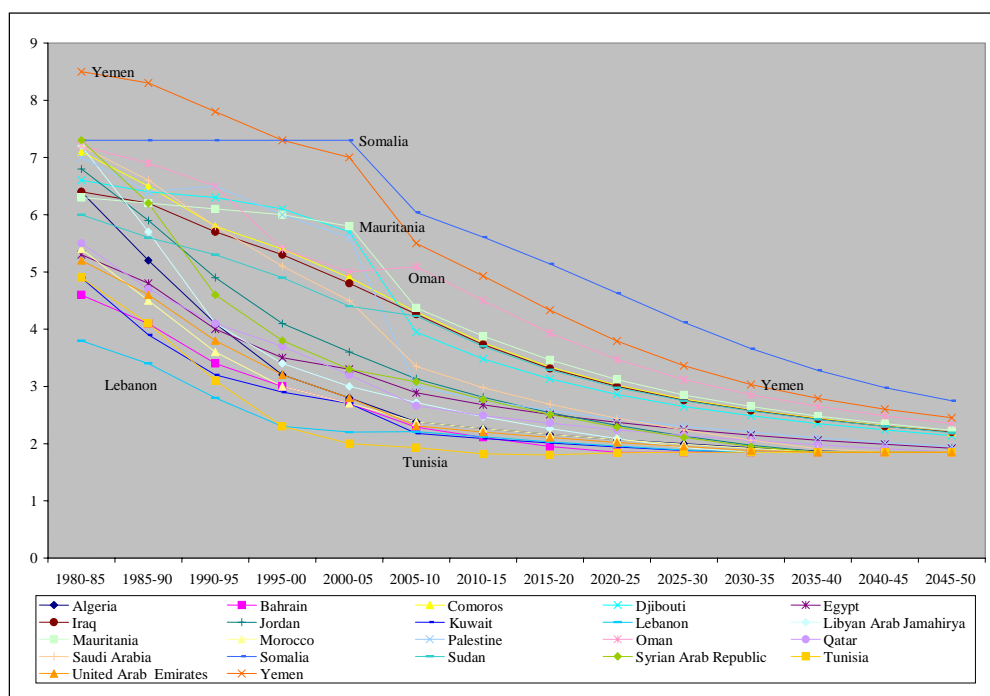
The population sizes of Arab countries vary significantly. Figure II highlights these differences and projects, by descending order of magnitude, the populations of the 22 countries of the Arab region as expected in 2050. Egypt is projected to maintain the highest population in the region, at 127.4 million, while Qatar is set to have the lowest population size, at 0.9 million. This comparison of population figures at two points of time reveals interesting population dynamics. Specifically, the populations of some countries are expected to grow substantially more than others over the period 1980-2050, including, most prominently, Egypt (83.7 million), Yemen (76.0 million), Saudi Arabia (45.1 million), Iraq (43.8 million), the Sudan (40.5 million), and the Syrian Arab Republic (25.2 million). Moreover, the average population growth rates of most of these countries were much higher during the initial years of that period, particularly in the case of Saudi Arabia and Yemen.

### Fertility levels and trends

The projected decline in the average growth rate of all 22 countries in the Arab region can be attributed to the expected fall in total fertility rate (TFR) in the region, particularly over the period 2015-2050.<sup>8</sup> Figure III highlights the trends in TFR for the Arab region over the period 1980-2050. While a drop in TFR is expected in all the countries of the region, the rate of decline is projected to vary considerably, particularly up to the period 2015-2020. Subsequent to that period, however, TFRs across the region are set to converge fast to the replacement level or even below replacement level in almost all Arab countries by 2050, with the exception of Somalia, Yemen and Oman (see annex table 3).

<sup>8</sup> The total fertility rate (TFR) is defined as the average number of children a woman could bear by the end of her reproductive life.

**Figure III. Total fertility rates of Arab countries, 1980-2050**

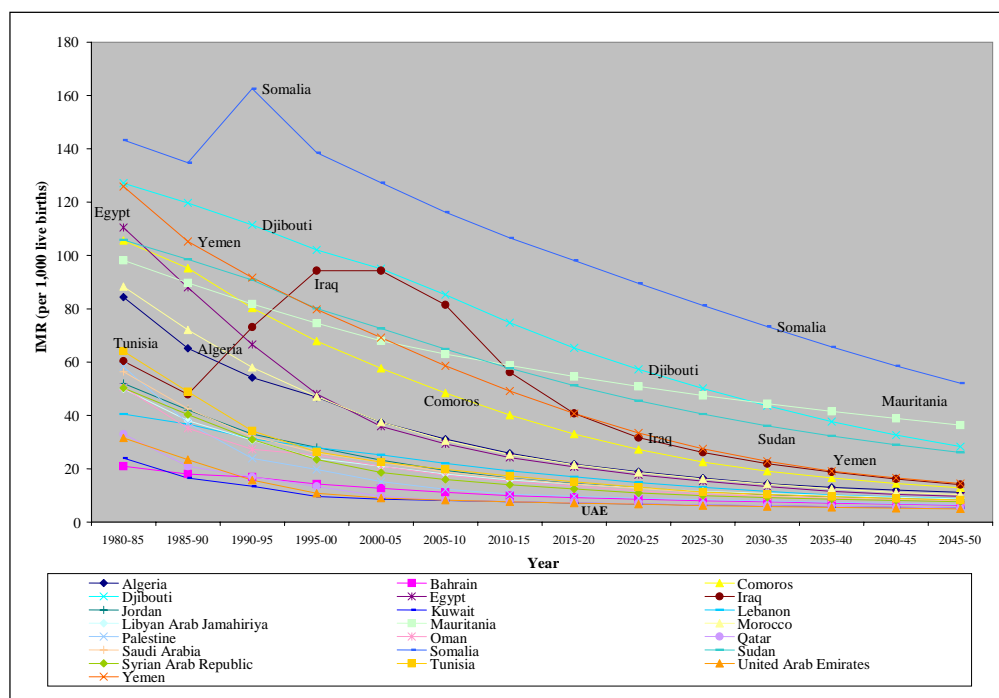


Source: ESCWA. See annex table 3.

### Mortality and life expectancy

Figures IV and V highlight trends in infant mortality rate (IMR) and in life expectancy at birth ( $e^0$ ). Since 1980, there has been a significant decline in mortality in almost all Arab countries. However, Iraq recorded an increase in mortality as indicated by the values of IMR and  $e^0$  over the period 1985-2005; and while IMR in Somalia is on the decline, that country is projected to retain the highest level of infant mortality among all Arab countries in 2050, at 52.1 per 1,000 live births. Other Arab countries that are likely to have IMRs in excess of 25 per 1,000 live births by 2050 include Mauritania (36.4), Djibouti (28.3) and the Sudan (26.1). In the rest of the region, IMR is expected to vary between a minimum of 4.9 per 1,000 live births for the United Arab Emirates to a maximum of 14.5 per 1,000 live births for Yemen (see annex table 4).

**Figure IV. Infant mortality rates of Arab countries, 1980-2050**  
(Per 1,000 live births)

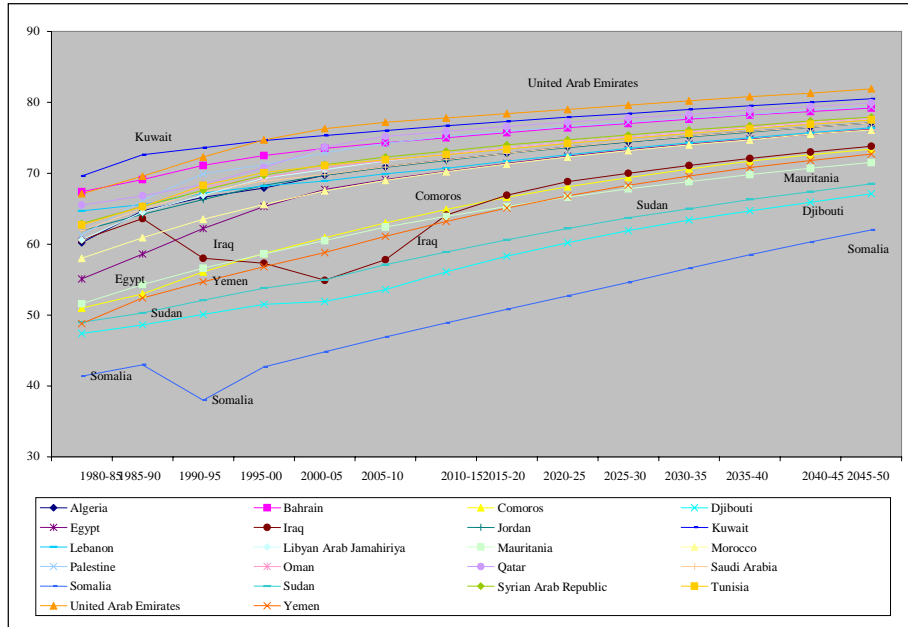


Source: ESCWA. See annex table 4.

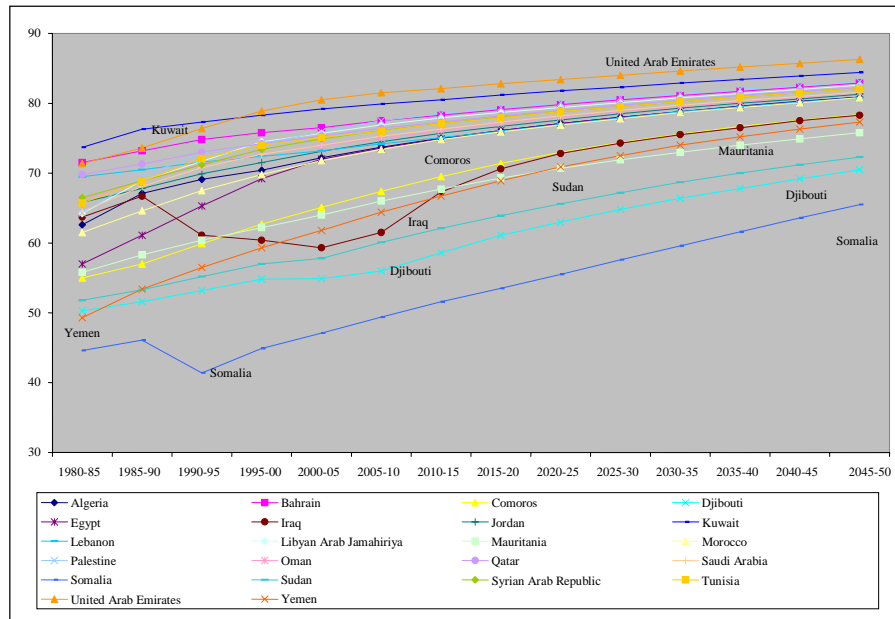
There has been a substantial gain in life expectancy at birth ( $e^0$ ) of both males and females in all 22 Arab countries during 1980-2005, and these trends are set to continue to varying degrees (see figure V). By 2050, the United Arab Emirates is expected to attain maximum  $e^0$  in the region both for males, at 81.9 years, and females, at 86.3 years; and Somalia is expected to register the lowest  $e^0$  for males and females at 62.0 and 65.5 years, respectively. Only six Arab countries are projected to have  $e^0$  for females below 80 years by 2050, namely, Somalia, Djibouti, Sudan, Mauritania, Iraq and Yemen. Moreover, with the notable exceptions of Djibouti and Somalia, differences in  $e^0$  that existed across the region in 1980 are projected to narrow considerably after 2015.

**Figure V. Life expectancy at birth of Arab countries, 1980-2050**

**A. Males**



**B. Females**



Source: ESCWA. See annex table 5.

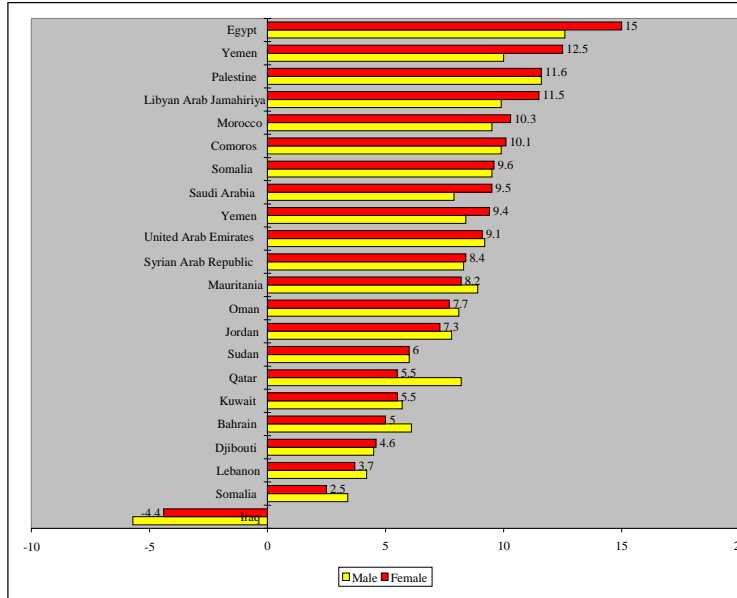
Figure VI presents the gain in life expectancy at birth ( $e_0^0$ ) of the 22 Arab countries by gender for the periods 1980-2005 and 1980-2050. The countries have been arranged in descending order of magnitude of  $e_0^0$  of females. With the exception of Iraq, all the countries of the region recorded increases in life



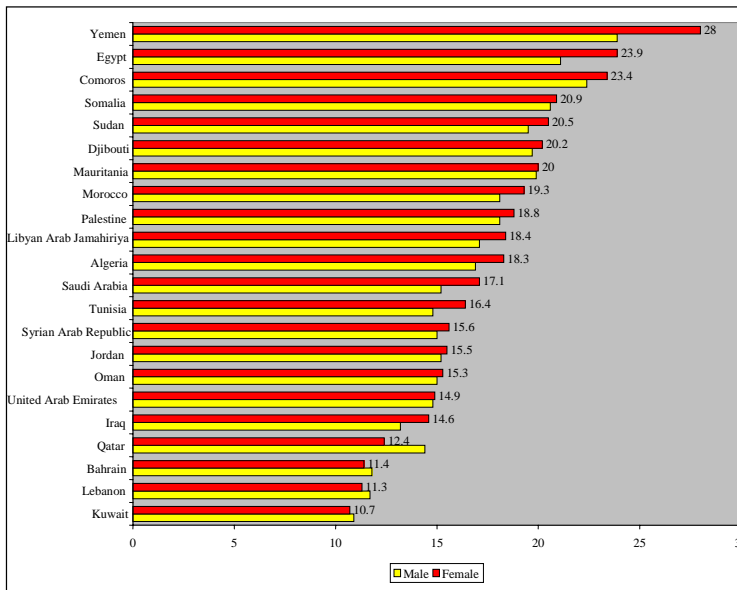
expectancy at birth for both males and females during 1980-2005.<sup>9</sup> In the majority of Arab countries, the gain in  $e_0^0$  for females was more than that for males; however, gains in  $e_0^0$  for males were higher than for females in nine countries of the region (see annex table 6). During the period 1980-2005, the highest and the lowest gains in  $e_0^0$  for both males and females were recorded in Egypt and Somalia, respectively.

**Figure VI. Gain in life expectancy at birth of Arab countries by gender**

**A. 1980-2005**



**B. 1980-2050**



Source: ESCWA. See annex table 6.

<sup>9</sup> Owing possibly to political instability and a heavy loss of human life, Iraq registered a rise in mortality level and a negative gain in  $e_0^0$  for males and females.

Generally, countries with the highest gains in  $e_0^0$  over the period 1980-2050 are those that recorded the lowest values of life expectancy at birth in 1980. Within that context, Yemen is expected to register the highest improvement in  $e_0^0$  for males and females in the region, at 24 and 28 years, respectively. While most Arab countries are set to experience accelerated gains in  $e_0^0$  for both males and females after 2005-2010, those countries that had already attained very low levels of mortality at the beginning of the twenty-first century are expected to experience comparatively smaller gains in  $e_0^0$ .

### **Population distribution**

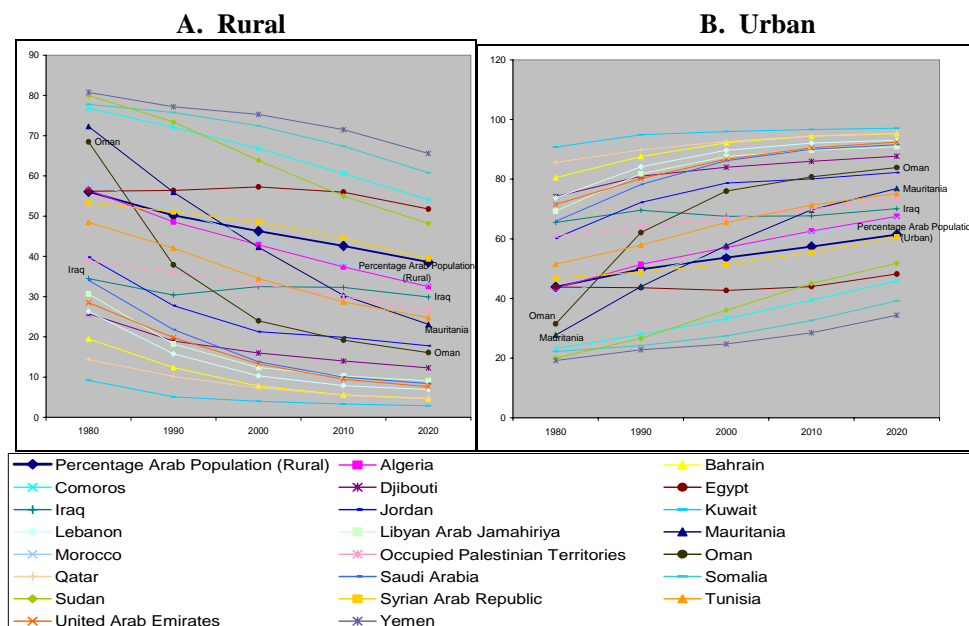
According to recent estimates, more than half of the world's population, or 3.3 billion people, will be living in urban areas in 2008, which is expected to swell to nearly 5 billion by 2030.<sup>10</sup> This global phenomenon continues to have repercussions on the Arab region, particularly in terms of rapid urbanization at the cost of rural populations. Figure VII illustrates the trends in shifting rural and urban populations in the Arab region during the period 1980-2020. Specifically, the decline in the rural populations of Arab countries is matched by a concomitant increase in urban populations. However, the pace of this urban increase varies across the region, with the highest percentage in Kuwait (97.1 per cent) by 2020, followed by Qatar (95.4 per cent), Bahrain (95.3 per cent), Lebanon (93.1 per cent), United Arab Emirates (92.4 per cent), Saudi Arabia (91.6 per cent) and Libyan Arab Jamahiriya (90.9 per cent). The share of the urban population in the Arab region as a whole is expected to exceed 61 per cent in 2020, thereby revealing the fast pace of urbanization (see annex table 7).

Among the selected eight countries under study, Jordan is expected to have the largest urban population (81.4 per cent) and, therefore, the lowest percentage of rural population. Moreover, over the period 1980-2015, Morocco is set to experience the maximum urbanization (23.5 per cent) and therefore the greatest loss in the percentage of rural population. While urbanization is rising in all eight countries, the pace in Egypt and Iraq is expected to be slower. In 2015, the share of the rural population is projected to be highest in Yemen, at 68.7 per cent, followed by Somalia, at 57.3 per cent (see annex table 10).

---

<sup>10</sup> United Nations Population Fund (UNFPA) "Peering into the dawn of an urban millennium", *State of world population 2007: Unleashing the potential of urban growth* (UNFPA, 2007), which is available at: [www.unfpa.org/swp/2007/english/introduction.html](http://www.unfpa.org/swp/2007/english/introduction.html).

**Figure VII. Rural and urban populations of Arab countries, 1980-2020**  
(Percentages)



Source: ESCWA. See annex table 7.

### Rural-to-urban migration and ageing of rural populations

This section assesses the extent of rural-to-urban migration and its impact on rural age distribution in terms of ageing in the selected eight Arab countries. To that end, the age-structural transition in urban populations is set forth below, followed by an analysis of the trends in growth rates of total populations in three broad age groups, namely, 0-14, 15-64 and 65+.

#### Age structure of urban populations

Demographic transition is occurring in all 22 Arab countries at varying rates. The transition in both fertility and mortality is changing the age structure of the populations of these countries.<sup>11</sup> As mentioned above, age structure has been kept constant over the period under study for the purpose of assessing rural population projections. Consequently, the analysis of age-structural changes in urban populations (derived as a residual from total population) can be used to infer changes in broad age groups, rural-to urban migration and ageing of rural populations in the selected eight countries for which projections of rural populations have been made up to 2015.

Changes in the age structure of the population have been considered in five age groups, namely, 0-4, 5-14, 15-24, 25-64 and 65+. The first two age groups provide changes in child populations, while the 0-4 age group clearly indicates any changes in fertility. The age segment 15-24 represents youth, whose population will typically be in the labour force or education. The age group 25-64 is the prime working-age group, whose population is generally engaged in economic activity; and the 65+ constitutes the elderly group wherein the bulk of the population is dependent on the working 15-64 population for their consumption and

<sup>11</sup> R. Tabbarah, "Demographic trends of ageing in the Arab countries" (E/ESCWA/SD/2002/WG.1-I/3).

health needs. Recent studies have shown that the age structure has significant impact on per capita GDP growth rate and, therefore, on the national economy of the country.<sup>12</sup>

Figure VIII shows the age-structural transition in the urban populations of the selected eight Arab countries under study over the period 1980-2015. All eight countries recorded significant changes in the age structure of their urban populations between 1980 and 2005, which could continue to 2015. Additionally, the share of the young, dependent population has consistently declined since 1980 and gained pace after 1995, with the exception of Iraq and Somalia. The most striking feature in most countries under study is the substantial growth of the urban population in the working-age group 15-64, particularly in the prime and economically active age segment 25-64. For example, in Egypt, the percentage share of the urban population in the working-age group 15-64 increased from 53.2 per cent in 1980 to 70.2 per cent in 2005 and is expected to reach 73.1 per cent in 2015. Moreover, the urban population in the prime and economically active age group 25-64 grew from 34.5 per cent in 1980 to 48.1 per cent in 2005 and is set to reach 57.8 per cent in 2015. Other countries that are projected to possess high concentrations of urban populations in working-age groups in 2015 include Jordan, Morocco, Tunisia and Yemen. The share of urban youth (15-24) is expected to decrease in Morocco, Tunisia and Yemen over the period 1980-2015. Interestingly, there is no evidence of high concentrations of urban population in the 65+ segment in Arab countries. In Egypt, for example, the urban population of that age group is projected to increase from 4.6 per cent in 1980 to 8.4 per cent in 2015. Equally, Morocco and Tunisia are expected to have elderly urban populations in the range of 6-7 per cent, which drops to 3-4 per cent in the remaining Arab countries by 2015. These percentages must be regarded with caution and with little weight attached to the actual numerical values given that these are based on assumption of a stationary age structure of the rural population. However, they do indicate a significant growth of the urban population in the working-age segments and, moreover, the relative position of the selected countries in that respect.

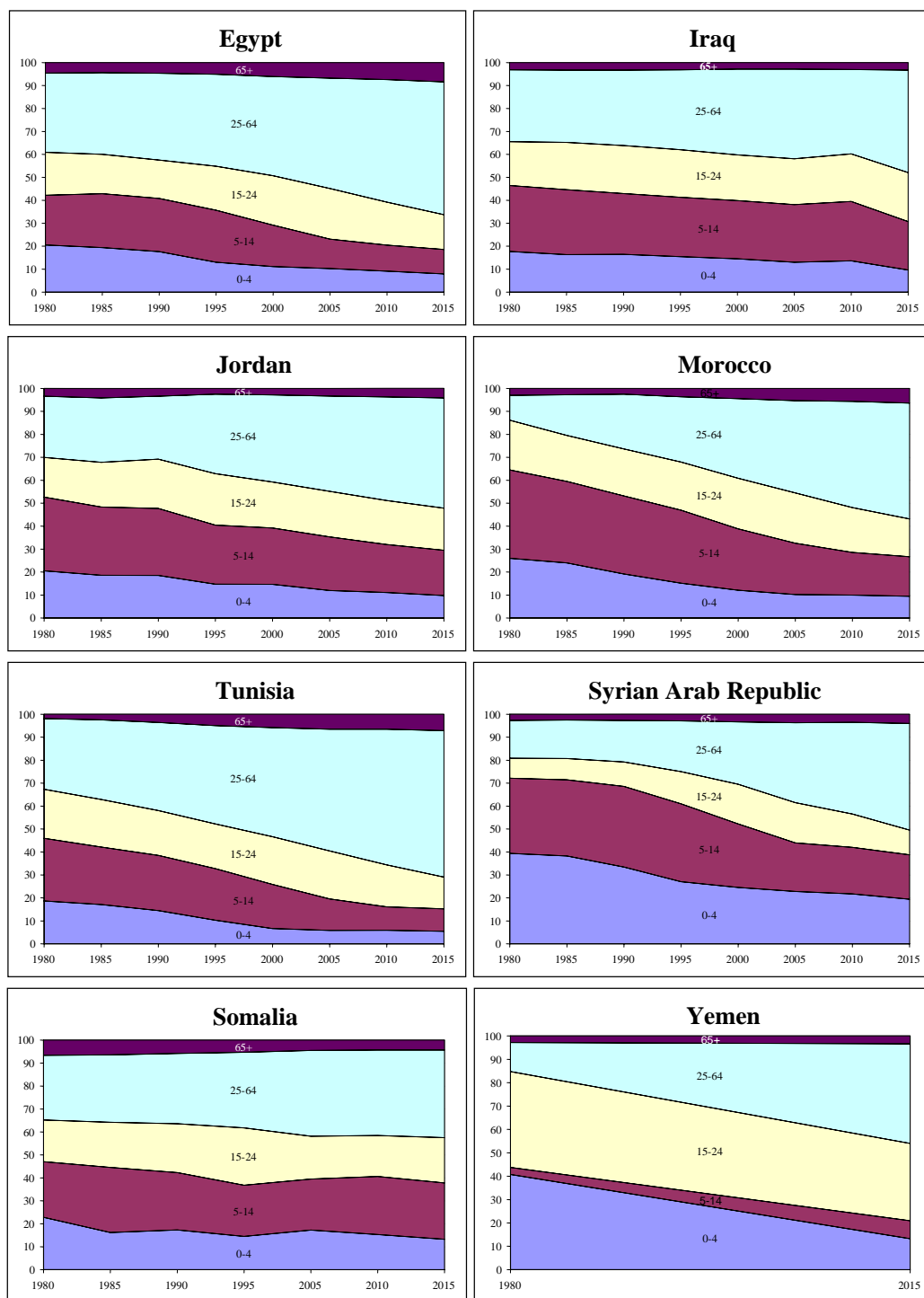
### **Trends in total, urban and rural growth rates**

Significant variations were observed in the growth rates of the populations within and between the eight countries under study in the three broad age groups, namely, 0-14, 15-64, and 65+. Moreover, over the period 1980-2015, large fluctuations were registered in terms of total (urban and rural) growth rates over the entire age range. With the exception of Iraq and Somalia, which have been subjected to political instability in recent years, the growth rate of the urban population in the working-age segment 15-64 was substantially higher than the growth rates of total and rural populations, particularly after 1985-1990. In other words, the growth rate of the rural populations was lowest in the economically active age segment; and the growth rate of total population lies between that of urban and rural populations. Most countries of the region, particularly those with a larger share of urban populations, are expected to experience sharp falls in the growth rates of their 0-14 populations owing to rapid declines in fertility. However, in most countries of the region, the growth rate of rural populations in this age segment is expected to be higher by 2015 than the respective rates of total and urban populations owing to rural-urban fertility differentials.

---

<sup>12</sup> See, for example, T. Lindh and B. Malmberg, "Age structure effects and growth in the OECD, 1950-1990", *Journal of Population Economics*, vol. 12, No. 3 (August 1999), pp. 431-449; B. Anderson, "Scandinavian evidence on growth and age structure", *Regional Studies*, vol. 35, No. 5 (2001), pp. 377-390; K. Navaneetham, "Age structural transition and economic growth: evidence from South and Southeast Asia", *Working Paper 337* (Asian Meta Centre for Population and Sustainable Development Analysis, August 2002); and A. Mason and R. Lee, "Reform and support systems for the elderly in developing countries: capturing the second demographic dividend", *Genus*, vol. 62, No. 2 (2006), pp. 11-35.

**Figure VIII. Age-structural transition of urban populations in selected Arab countries, 1980-2015**



Source: ESCWA. See annex table 10.

The 65+ group shows some peculiar trends in most countries. Specifically, the growth rate of the urban population of the elderly is found to exceed the rural growth rate. Indeed, some countries are projected to lose their rural populations in that age segment by 2015. This unexpected trend could stem from factual errors in the data. In fact, with the rapid mortality transition, the absolute number of survivors and, therefore, the percentage of the old population are expected to increase. However, owing to the above-mentioned assumption of a constant age structure of the rural population, the elderly segment does not show the change in the percentage of rural population, thereby suppressing the effect of ageing on the age structure of the rural population. Moreover, given that the urban population was obtained as the residual of the total projected population, the urban population could be overestimated in the 65+ group, which could account for the high urban growth rate observed for that age segment of the population. However, migrations away from rural areas for the 65+ group could equally stem from a lack of rural infrastructure, particularly in the health and economic sectors.<sup>13</sup> A majority of those engaged in economic activity in old age could lack adequate cover under social security schemes and, therefore, feel compelled to move to urban areas in search of employment.

### **Rural-to-urban migration**

To date, the evidence suggests a migration from rural to urban areas, particularly in working-age groups, to varying degrees of magnitude across the Arab region. Generally, this phenomenon is supported by the age-structural transition of the urban populations of the eight selected Arab countries and by the analysis of trends in growth rates of rural and urban populations. A downward and sometimes negative growth rate of rural population in some countries suggests a heavy rural-to-urban shift; and the upward trend in the growth rate of urban populations is expected to continue unabated until 2015, which represents the final year of the observational period of this study. Given the constant age structure of the rural population, set at the level of 1980, the estimates of urban growth rate and of the extent of rural-to-urban migration for the 15-64 age segment could be underestimated, while the figures for the 65+ age group could be overestimated. The underestimation of the migration in the working-age segment could stem from the fact that the acceleration in rural-to-urban shift began after 1980, which is even evident from the current scenario of the age-structural transition of urban populations. The assumption of constant age structure therefore maintains the same percentage of the population in the working-age groups, while in reality the significant outward migration could further dent the rural age distribution, particularly in the prime working-age group of 25-64. Consequently, a greater degree of rural-to-urban migration can be expected than described in this study, thereby yielding heavier concentrations of urban populations in working-age groups.

### **Rural ageing**

Like many developing countries, ageing of rural populations is now well underway in Arab countries. The phenomenon of ageing comprises both population ageing and individual ageing, which represent macro and micro concepts of ageing. The former refers to ageing of populations in an aggregate sense whereby the structure of a population by age and gender, which is represented by a pyramid, undergoes a shift as a result of changes in mortality, fertility and migration flows.<sup>14</sup> Individual ageing, on the other hand, is solely influenced by reductions in mortality rates and has not contributed to a significant degree towards rural ageing in the Arab region. The table below presents three indices of ageing for rural and urban populations of selected Arab countries, namely, the ageing index (AI), which measures the number of 65+ per 100 persons aged 15 years and under; the young dependency ratio (YDR), which measures the number of persons aged 15 years and under per 100 persons aged 15-64 years; and the old dependency ratio (ODR), which measures the number of 65+ per 100 persons aged 15-64 years.

---

<sup>13</sup> Within the context of the latter, it is important to note that labour force participation is higher among the elderly in Arab countries where more than 38 per cent were still working compared to 27 per cent in developed countries. J. Turner and J.H. Lichtenstein, "Social security reform in the Middle East", *Journal of Aging and Social Policy*, vol. 14 (2002), pp. 115-124.

<sup>14</sup> P.C. Saxena, "Ageing in the Arab countries: Trends, regional variations and macroeconomic consequences", which was presented at the International Seminar on the Demographic Window and Healthy Aging: Socioeconomic Challenges and Opportunities (Beijing, 10-11 May 2004).

## INDICES OF AGEING FOR RURAL AND URBAN POPULATIONS OF SELECTED ARAB COUNTRIES

Country	Rural			Urban								
	1980			1980			2000			2015		
	AI	YDR	ODR	AI	YDR	ODR	AI	YDR	ODR	AI	YDR	ODR
Egypt	8.2	73.0	6.0	10.9	79.2	8.6	20.8	45.0	9.4	45.0	25.4	11.4
Iraq	5.7	98.9	5.6	6.7	92.1	6.2	7.1	69.6	4.9	10.6	46.6	5.0
Jordan	5.9	83.9	5.0	6.5	120.0	7.8	7.2	67.6	4.9	14.2	44.3	6.3
Morocco	18.5	39.9	7.4	4.7	198.0	9.3	11.4	68.5	7.8	23.9	39.8	9.5
Tunisia	15.4	66.9	10.3	4.1	88.3	3.6	22.4	37.9	8.5	46.8	19.6	9.2
Syrian Arab Republic	9.3	42.7	4.0	3.7	88.3	10.7	6.3	37.9	7.4	10.4	19.6	7.1
Somalia	3.3	90.2	3.0	14.1	286.5	10.7	4.9	117.5	7.4	11.3	67.9	7.1
Yemen	7.2	118.8	8.5	6.5	82.1	5.3	..	54.3	..	16.5	27.7	4.6

*Source:* Compiled by ESCWA.

*Note:* AI, YDR and ODR refer, respectively to ageing index, young dependency ratio and old dependency ratio.

Two dots (..) indicate that data are not available.

The ageing index for rural population is highest in Morocco (18.5 per cent), followed by Tunisia (15.4 per cent). In the other countries, the index ranges between 3.3 per cent in Somalia to 9.3 per cent in the Syrian Arab Republic, thereby suggesting that the ageing process is considerably slower in the rural populations of Arab countries. However, the ageing index is expected to rise in the wake of drops in fertility and increases in life expectancy. The rural young dependency ratio is comparatively high in all eight selected countries, particularly in Yemen, Iraq, Somalia and Jordan. This could be attributed to prevailing high fertility in rural areas coupled with shrinking rural populations, owing to migration of economically active age groups. It seems unlikely that rural fertility will decline sharply before 2015. Furthermore, owing to expected increases in rural-to-urban migration, the young dependency burden could even record an upward change during the period 2000-2015. Equally, the rural old age dependency is expected to rise in the future. In fact, given the assumption of a constant rural age structure, all the ratios are static until 2015. In reality, however, both rural fertility and rural mortality are expected to undergo shifts in all Arab countries at varying rates. Young age dependency could, however, remain constant or increase owing largely to the migration of rural populations in the working-age groups to urban areas. The old age dependency is set to increase as a result of individual ageing and gains in life expectancy for the 65+, coupled with migrations from rural to urban areas of working-age groups and the return of migrants from urban areas in the 65+ group. Consequently, the total dependency burden, which is the total of young and old dependencies, could increase significantly in the case of rural populations. In urban populations, however, the ageing index is generally expected to record a rising trend; and the overall dependency burden in urban populations is projected to remain either constant or decrease owing to sharp decreases in urban fertility and increases of urban populations in the working-age groups.

### **Implications of rural-to-urban migration and rural ageing**

According to a recent report by the United Nations Population Fund (UNFPA), more than half of the world's population will be living in towns and cities in 2008; and, at the current rate of decline of rural populations, approximately 28 million people will have traded living in rural areas for a more urban setting by 2030, thereby causing the number of urbanites in less developed regions to mushroom from 309 million in 1950 to 3.9 billion in 2030.<sup>15</sup> According to these projections, developing countries will have 80 per cent of the world's urban population by 2030.<sup>16</sup> This transformation was similarly observed in the eight selected Arab countries of this study, with significant population shifts from rural to urban areas, particularly in the

<sup>15</sup> United Nations Population Fund (UNFPA) "Peering into the dawn of an urban millennium", *State of world population 2007: Unleashing the potential of urban growth* (UNFPA, 2007), which is available at: [www.unfpa.org/swp/2007/english/introduction.html](http://www.unfpa.org/swp/2007/english/introduction.html).

<sup>16</sup> Ibid.

prime 24-64 working-age segment. While these eight countries account for slightly more than 61 per cent of the total population of the 22 Arab countries, they do not include the wealthiest albeit less populated countries of the region, namely, Kuwait, Qatar and the United Arab Emirates, which enjoy higher per capita incomes than several European countries. Nevertheless, these selected eight countries accurately represent the rural-to-urban population shift scenario of all Arab countries. Consequently, the observed rural-to-urban migration and rural ageing of these selected eight countries generally hold true for the remaining 14 States of the Arab region.

The rural-to-urban shift in Arab countries could have far-reaching implications on the agriculture, economy, environment and population of the region. As has been observed, rural populations in poorer countries have a tendency to age faster than urban populations.<sup>17</sup> Similarly, in the selected eight countries, ageing of rural populations is observed to be occurring at a faster rate owing to the significant migration to urban areas of the working-age population. Moreover, an outflow of women of childbearing ages could in effect speed up rural ageing owing to the resulting decline in rural birth rates. Rural-to-urban migration is likely to have an immediate effect on labour supply for the agriculture sector. Indeed, in many countries the supply of agricultural labour could become increasingly tight as the relative numbers of those age-segments with the highest activity rates diminish from the combined effects of urban migration and fertility decline. Consequently, serious challenges could arise in terms of expanding agricultural production or even maintaining existing patterns, particularly where production relies on labour-intensive forms of farming.<sup>18</sup> Agricultural production is projected to decline owing to the rapid ageing of the rural population, thereby adversely affecting the rural economy.

## Conclusions

Rural-to-urban migration is the key determinant of rural ageing. The developmental implications of rural ageing rest primarily on the fact that ageing ultimately affects social organization and the relevant societal institutions, including families and households. The impact of ageing is expected to be more acute in rural areas, which are experiencing rapid demographic change, and where the flexibility of socioeconomic conditions is limited owing to existing environmental, cultural or political conditions.<sup>19</sup> A continuous rural-to-urban shift is expected to place significant pressure on the existing infrastructure of cities and other urban areas in the region. This could create more demand for housing and transport in urban areas, which in turn could have adverse effects on the environment. While urban areas need rural support, the converse argument is not necessarily true. The evacuation of the rural population from villages could prove disastrous; and all efforts must therefore be geared towards decelerating the rural-to-urban shift of the working-age population in order to encourage self-reliance in rural areas and promote the rural source of strong support to urban areas, particularly in food supplies and agricultural products.

---

<sup>17</sup> See, for example, A. Marcoux, "Ageing rural populations in the developing countries: Patterns, determinants, and implications", in *Ageing and the Family* (Department of Economic and Social Information and Policy Analysis, 1994), pp. 144-148; and R. Skeldon, "Rural-to-urban migration and its implications for poverty alleviation", *Asia-Pacific Population Journal*, vol. 12, No. 1 (1997), pp. 3-15.

<sup>18</sup> L. Stloukal, "Rural population ageing in poorer countries: possible implications for rural development", *SD dimensions* (Sustainable Development Department, Food and Agriculture Organization (FAO), May 2001).

<sup>19</sup> *Ibid.*



## Annex

ANNEX TABLE 1. TOTAL POPULATION OF THE ARAB REGION, 1980-2050  
(Millions)

Country or territory	1980	2002 <sup>a/</sup>	2015	2025	2050
Algeria	18.81	31.27	38.09	42.88	48.67
Bahrain	0.35	0.71	0.86	0.97	1.27
Comoros	0.39	0.75	1.01	1.22	1.82
Djibouti	0.34	0.69	0.95	1.11	1.40
Egypt	43.67	70.51	86.22	98.51	127.41
Iraq	14.09	24.51	34.95	43.29	57.93
Jordan	2.23	5.33	6.92	8.03	10.15
Kuwait	1.38	2.44	3.38	3.99	4.93
Lebanon	2.79	3.60	4.43	4.78	4.95
Libyan Arab Jamahiriya	3.06	5.45	7.13	8.09	9.25
Mauritania	1.50	2.81	3.76	4.55	7.50
Morocco	19.57	30.07	34.33	37.87	47.06
Oman	1.19	2.77	3.05	3.61	6.81
Palestine	1.48	3.43	5.09	6.55	11.11
Qatar	0.23	0.60	0.97	1.10	0.87
Saudi Arabia	9.60	23.52	29.27	34.80	54.74
Somalia	6.49	9.48	10.88	13.71	39.67
Sudan	19.64	32.88	45.61	54.27	60.13
Syrian Arab Republic	8.97	17.38	23.51	27.52	34.17
Tunisia	6.46	9.73	11.20	12.17	12.89
United Arab Emirates	1.02	2.94	5.26	6.27	4.11
Yemen	8.38	19.32	28.29	36.57	84.39
Arab region	171.62	300.17	385.15	451.86	631.22

Source: Department of Economic and Social Affairs (DESA), *World Population Prospects: The 2006 Revision* (Population Division, 2007), which is available at: [www.un.org/esa/population/publications/wpp2006/wpp2006.htm](http://www.un.org/esa/population/publications/wpp2006/wpp2006.htm).

a/ The population figures are for mid-2002.

ANNEX TABLE 2. TRENDS IN AVERAGE ANNUAL POPULATION GROWTH RATE

Country or territory	1980-2002	2002-2015	2015-2025	2025-2050
Algeria	2.3	1.5	1.2	0.5
Bahrain	3.2	1.5	1.2	1.1
Comoros	3.0	2.3	1.9	1.6
Djibouti	3.2	2.5	1.6	0.9
Egypt	2.2	1.5	1.3	1.0
Iraq	2.5	2.7	2.1	1.2
Jordan	4.0	2.0	1.5	0.9
Kuwait	2.6	2.5	1.7	0.8
Lebanon	1.2	1.6	0.8	0.1
Libyan Arab Jamahiriya	2.6	2.1	1.3	0.5
Mauritania	2.9	2.2	1.9	2.0
Morocco	2.0	1.0	1.0	0.9
Oman	3.8	0.7	1.7	2.5
Palestine	3.8	3.0	2.5	2.1
Qatar	4.4	3.7	1.3	-0.9
Saudi Arabia	4.1	1.7	1.7	1.8
Somalia	1.7	1.1	2.3	4.2
Sudan	2.3	2.5	1.7	0.4
Syrian Arab Republic	3.0	2.3	1.6	0.9
Tunisia	1.9	1.1	0.8	0.2
United Arab Emirates	4.8	4.5	1.8	-1.7
Yemen	3.8	2.9	2.6	3.3
Arab region	2.5	1.9	1.6	1.3

Source: ESCWA, compiled from annex table 1.

ANNEX TABLE 3. TOTAL FERTILITY RATE IN ARAB COUNTRIES, 1980-2050  
(Per 1,000 population)

Country or territory	Total fertility rate													
	1980-1985	1985-1990	1990-1995	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025	2025-2030	2030-2035	2035-2040	2040-2045	2045-2050
Algeria	6.4	5.2	4.1	3.2	2.8	2.38	2.26	2.16	2.07	2.00	1.93	1.87	1.85	1.85
Bahrain	4.6	4.1	3.4	3.0	2.7	2.29	2.11	1.95	1.85	1.85	1.85	1.85	1.85	1.85
Comoros	7.1	6.5	5.8	5.4	4.9	4.30	3.76	3.34	3.02	2.78	2.59	2.44	2.31	2.20
Djibouti	6.6	6.4	6.3	6.1	5.7	3.95	3.48	3.13	2.86	2.65	2.49	2.35	2.24	2.14
Egypt	5.3	4.8	4.0	3.5	3.3	2.89	2.68	2.51	2.37	2.25	2.15	2.06	1.99	1.92
Iraq	6.4	6.2	5.7	5.3	4.8	4.26	3.73	3.31	3.00	2.76	2.58	2.43	2.30	2.20
Jordan	6.8	5.9	4.9	4.1	3.6	3.13	2.81	2.54	2.32	2.13	1.97	1.86	1.85	1.85
Kuwait	4.9	3.9	3.2	2.9	2.7	2.18	2.09	2.01	1.94	1.88	1.85	1.85	1.85	1.85
Lebanon	3.8	3.4	2.8	2.3	2.2	2.21	2.12	2.03	1.96	1.89	1.85	1.85	1.85	1.85
Libyan Arab Jamahiriya	7.2	5.7	4.1	3.4	3.0	2.72	2.47	2.26	2.09	1.93	1.85	1.85	1.85	1.85
Mauritania	6.3	6.2	6.1	6.0	5.8	4.37	3.88	3.46	3.12	2.85	2.65	2.48	2.35	2.23
Morocco	5.4	4.5	3.6	3.0	2.7	2.38	2.26	2.16	2.07	1.99	1.92	1.86	1.85	1.85
Oman	7.2	6.9	6.5	5.4	5.0	5.09	4.50	3.93	3.47	3.12	2.85	2.65	2.48	2.35
Palestine	7.0	6.4	6.5	6.0	5.6	3.00	2.76	2.58	2.43	2.30	2.20	2.10	2.02	1.95
Qatar	5.5	4.7	4.1	3.7	3.2	2.66	2.49	2.36	2.24	2.14	2.06	1.98	1.91	1.86
Saudi Arabia	7.2	6.6	5.8	5.1	4.5	3.35	2.98	2.69	2.44	2.24	2.06	1.91	1.85	1.85
Somalia	7.3	7.3	7.3	7.3	7.3	6.04	5.61	5.14	4.63	4.12	3.66	3.28	2.98	2.75
Sudan	6.0	5.6	5.3	4.9	4.4	4.23	3.70	3.29	2.98	2.75	2.57	2.42	2.30	2.19
Syrian Arab Republic	7.3	6.2	4.6	3.8	3.3	3.08	2.77	2.51	2.29	2.11	1.95	1.85	1.85	1.85
Tunisia	4.9	4.1	3.1	2.3	2.0	1.93	1.82	1.80	1.84	1.85	1.85	1.85	1.85	1.85
United Arab Emirates	5.2	4.6	3.8	3.2	2.8	2.31	2.20	2.11	2.02	1.95	1.88	1.85	1.85	1.85
Yemen	8.5	8.3	7.8	7.3	7.0	5.50	4.93	4.33	3.79	3.36	3.03	2.79	2.60	2.45

Source: Department of Economic and Social Affairs (DESA), *World Population Prospects: The 2006 Revision* (Population Division, 2007), which is available at: [www.un.org/esa/population/publications/wpp2006/wpp2006.htm](http://www.un.org/esa/population/publications/wpp2006/wpp2006.htm).

ANNEX TABLE 4. INFANT MORTALITY RATE IN ARAB COUNTRIES, 1980-2050  
(Per 1,000 live births)

Country or territory	Infant mortality rate													
	1980-1985	1985-1990	1990-1995	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025	2025-2030	2030-2035	2035-2040	2040-2045	2045-2050
Algeria	84.4	65.2	54.2	46.8	37.4	31.1	25.8	21.7	18.9	16.5	14.4	13	12	11.1
Bahrain	21	18	16.9	14.3	12.7	11.2	9.9	9.2	8.6	8	7.6	7.1	6.7	6.3
Comoros	105.6	95.2	80.3	67.9	57.7	48.4	40.1	33	27.2	22.5	19.1	16.6	14.5	12.8
Djibouti	127.1	119.7	111.5	102.1	95	85.3	74.8	65.3	57.3	50.1	43.6	37.7	32.6	28.3
Egypt	110.5	88	66.6	48.1	35.9	29.3	24.2	20.7	17.7	15.3	13.3	11.5	10.4	9.7
Iraq	60.4	47.9	73.1	94.3	94.3	81.5	56.2	40.8	31.7	26.1	21.9	18.8	16.2	14.1
Jordan	52	42	33	28	23.2	19.4	16.5	14.5	12.9	11.4	10.1	9.4	8.8	8.2
Kuwait	24	16.5	13.4	9.6	8.6	8.1	7.6	7.2	6.8	6.4	6.1	5.8	5.5	5.3
Lebanon	40.5	36.7	31.2	27.9	25.2	22	19.2	17	14.8	13	11.5	10.1	9.4	8.8
Libyan Arab Jamahiriya	50	38.1	30.7	23.8	20.9	18	15.8	14.2	12.8	11.5	10.7	9.9	9.3	8.7
Mauritania	98.2	89.7	81.8	74.6	68	63	58.7	54.6	50.9	47.5	44.4	41.5	38.9	36.4
Morocco	88.3	72.1	58	47	37.5	30.6	25.3	21.5	18.6	16.2	14.2	12.5	11.1	10.3
Oman	50.6	35.2	27.3	25.1	20.9	17.5	15.2	13.4	11.7	10.4	9.7	9	8.4	7.9
Palestine	58.3	37.1	23.9	19.7	15.2	12.3	10.5	9.7	9	8.4	7.9	7.4	7	6.6
Qatar	33	21	17	13.4	9.7	8.2	7.7	7.3	6.9	6.5	6.2	5.9	5.6	5.3
Saudi Arabia	56.4	42.5	32.1	26	22.4	18.8	16.4	14.3	12.6	11.1	9.9	9.2	8.6	8.1
Somalia	143.3	134.8	162.6	138.6	127.3	116.3	106.6	98.1	89.6	81.3	73.3	65.7	58.6	52.1
Sudan	105.8	98.5	90.8	80.1	72.6	64.9	57.7	51.2	45.5	40.5	36.1	32.3	29	26.1
Syrian Arab Republic	50.3	40.3	31	23.5	18.6	16	14	12.4	10.9	9.9	9.2	8.6	8.1	7.6
Tunisia	64.1	48.9	34.2	26.4	22.5	19.8	17.3	15.1	13.1	11.3	10.4	9.6	8.9	8.3
United Arab Emirates	31.6	23.4	15.7	10.8	9	8.2	7.6	7.1	6.7	6.2	5.8	5.5	5.2	4.9
Yemen	125.9	105.2	91.7	79.8	69.2	58.6	49.1	40.7	33.4	27.5	22.8	19.1	16.6	14.5

Source: Department of Economic and Social Affairs (DESA), *World Population Prospects: The 2006 Revision* (Population Division, 2007), which is available at: [www.un.org/esa/population/publications/wpp2006/wpp2006.htm](http://www.un.org/esa/population/publications/wpp2006/wpp2006.htm).

ANNEX TABLE 5. LIFE EXPECTANCY AT BIRTH IN ARAB COUNTRIES BY GENDER, 1980-2050  
(Years)

Country or territory	Life expectancy at birth by gender																												
	1980-1985		1985-1990		1990-1995		1995-2000		2000-2005		2005-2010		2010-2015		2015-2020		2020-2025		2025-2030		2030-2035		2035-2040		2040-2045		2045-2050		
	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Algeria	62.6	60.2	67.1	64.7	69.1	66.6	70.4	67.9	72.2	69.7	73.7	70.9	75	71.9	76.1	72.8	77.1	73.7	78	74.4	78.8	75.2	79.6	75.9	80.3	76.5	80.9	77.1	
Bahrain	71.5	67.4	73.2	69.1	74.8	71.1	75.8	72.5	76.5	73.5	77.5	74.3	78.3	75	79.1	75.7	79.8	76.4	80.5	77	81.1	77.6	81.7	78.2	82.3	78.7	82.9	79.2	
Comoros	55	51	57	53	59.9	56.1	62.7	58.7	65.1	60.9	67.4	63	69.5	64.9	71.4	66.6	73	68.1	74.4	69.4	75.6	70.6	76.7	71.7	77.6	72.6	78.4	73.4	
Djibouti	50.3	47.4	51.6	48.6	53.2	50.1	54.8	51.5	54.9	51.9	56	53.6	58.6	56.1	61.1	58.3	63	60.2	64.8	61.9	66.4	63.4	67.8	64.7	69.2	65.9	70.5	67.1	
Egypt	57	55.1	61.1	58.6	65.3	62.2	69.2	65.3	72	67.7	73.6	69.1	74.9	70.3	76.1	71.4	77.1	72.4	78	73.3	78.8	74.1	79.5	74.8	80.2	75.5	80.9	76.2	
Iraq	63.7	60.6	66.7	63.6	61.1	58	60.4	57.3	59.3	54.9	61.5	57.8	67.3	64.1	70.6	66.9	72.8	68.8	74.3	70	75.5	71.1	76.5	72.1	77.5	73	78.3	73.8	
Jordan	65.8	61.9	67.8	64.2	69.9	66.3	71.5	68.3	73.1	69.7	74.5	70.8	75.7	71.8	76.7	72.8	77.6	73.6	78.5	74.4	79.3	75.1	80	75.8	80.6	76.5	81.3	77.1	
Kuwait	73.7	69.6	76.3	72.6	77.3	73.6	78.3	74.6	79.2	75.3	79.9	76	80.5	76.7	81.2	77.3	81.8	77.9	82.3	78.4	82.9	79	83.4	79.5	83.9	80	84.4	80.5	
Lebanon	69.5	64.7	70.5	65.6	71.6	67.2	72.4	68.2	73.2	68.9	74.2	69.9	75.1	70.7	76	71.7	77	72.6	77.9	73.5	78.8	74.3	79.5	75	80.2	75.7	80.8	76.4	
Libyan Arab Jamahiriya	64.2	60.6	68.9	64.5	71.7	66.9	74.5	69.3	75.7	70.5	76.9	71.7	77.9	72.7	78.7	73.6	79.4	74.4	80.1	75.1	80.8	75.8	81.4	76.4	82	77.1	82.6	77.7	
Mauritania	55.8	51.6	58.3	54.3	60.4	56.6	62.2	58.6	64	60.5	66	62.4	67.7	63.9	69.3	65.3	70.7	66.6	71.9	67.8	73	68.8	74	69.8	74.9	70.7	75.8	71.5	
Morocco	61.5	58	64.6	60.9	67.5	63.5	69.8	65.6	71.8	67.5	73.4	69	74.8	70.2	75.9	71.3	76.9	72.3	77.8	73.2	78.7	74	79.4	74.7	80.1	75.5	80.8	76.1	
Oman	66.2	62.7	68.8	65.4	71.4	68.1	72.7	69.4	73.9	70.8	75	71.8	76.1	72.7	77.1	73.6	78	74.4	78.8	75.1	79.5	75.8	80.2	76.5	80.9	77.1	81.5	77.7	
Palestine	64.3	61.3	69.5	66.2	72.9	69.9	74.2	71.2	75.9	72.9	77.5	74.2	78.5	75.2	79.4	75.9	80.1	76.6	80.8	77.2	81.4	77.8	82	78.3	82.5	78.9	83.1	79.4	
Qatar	69.8	65.5	71.3	66.8	73	68.4	74.2	70.8	75.3	73.7	76.4	75.2	77.3	75.9	78.2	76.6	79	77.2	79.7	77.8	80.4	78.3	81.1	78.9	81.7	79.4	82.2	79.9	
Saudi Arabia	64.5	61.9	68.1	65	70.8	67.4	72.7	68.9	74	69.8	75.3	70.9	76.3	71.9	77.3	72.8	78.2	73.7	79	74.5	79.7	75.2	80.4	75.9	81	76.5	81.6	77.1	
Somalia	44.6	41.4	46.1	43	41.4	38	44.9	42.7	47.1	44.8	49.4	46.9	51.6	48.9	53.5	50.8	55.5	52.7	57.6	54.6	59.6	56.6	61.6	58.5	63.6	60.3	65.5	62	
Sudan	51.8	49	53.3	50.3	55.2	52.1	57	53.8	57.8	55	60.1	57.1	62.1	58.9	63.9	60.6	65.6	62.2	67.2	63.7	68.7	65	70	66.3	71.2	67.4	72.3	68.5	
Syrian Arab Republic	66.5	62.9	68.9	65.3	71.2	67.6	73.4	69.7	74.9	71.2	76.1	72.3	77.1	73.1	78	74	78.8	74.7	79.5	75.4	80.2	76.1	80.9	76.7	81.5	77.4	82.1	77.9	
Tunisia	65.7	62.7	68.8	65.3	72.1	68.3	74	70.1	75.1	71.1	76	71.9	77.1	72.6	77.9	73.4	78.8	74.2	79.5	74.9	80.2	75.6	80.9	76.3	81.5	76.9	82.1	77.5	
United Arab Emirates	71.4	67.1	73.6	69.6	76.4	72.3	78.9	74.7	80.5	76.3	81.5	77.2	82.1	77.8	82.8	78.4	83.4	79	84	79.6	84.6	80.2	85.2	80.8	85.7	81.3	86.3	81.9	
Yemen	49.3	48.8	53.4	52.4	56.5	54.7	59.3	56.8	61.8	58.8	64.4	61.1	66.7	63.2	68.9	65.1	70.9	66.8	72.5	68.3	74	69.6	75.2	70.8	76.3	71.8	77.3	72.7	

Source: Department of Economic and Social Affairs (DESA), *World Population Prospects: The 2006 Revision* (Population Division, 2007), which is available at: [www.un.org/esa/population/publications/wpp2006/wpp2006.htm](http://www.un.org/esa/population/publications/wpp2006/wpp2006.htm).

ANNEX TABLE 6. GAIN IN LIFE EXPECTANCY AT BIRTH IN ARAB COUNTRIES BY GENDER,  
1980-2005 AND 1980-2050  
(Years)

Country or territory	Gain in life expectancy at birth			
	1980-2005		1980-2050	
	Female	Male	Female	Male
Algeria	9.6	9.5	18.3	16.9
Bahrain	5.0	6.1	11.4	11.8
Comoros	10.1	9.9	23.4	22.4
Djibouti	4.6	4.5	20.2	19.7
Egypt	15.0	12.6	23.9	21.1
Iraq	-4.4	-5.7	14.6	13.2
Jordan	7.3	7.8	15.5	15.2
Kuwait	5.5	5.7	10.7	10.9
Lebanon	3.7	4.2	11.3	11.7
Libyan Arab Jamahiriya	11.5	9.9	18.4	17.1
Mauritania	8.2	8.9	20.0	19.9
Morocco	10.3	9.5	19.3	18.1
Oman	7.7	8.1	15.3	15.0
Palestine	11.6	11.6	18.8	18.1
Qatar	5.5	8.2	12.4	14.4
Saudi Arabia	9.5	7.9	17.1	15.2
Somalia	2.5	3.4	20.9	20.6
Sudan	6.0	6.0	20.5	19.5
Syrian Arab Republic	8.4	8.3	15.6	15.0
Tunisia	9.4	8.4	16.4	14.8
United Arab Emirates	9.1	9.2	14.9	14.8
Yemen	12.5	10.0	28.0	23.9

Source: ESCWA, computed from annex table 5.

ANNEX TABLE 7. ESTIMATED AND PROJECTED RURAL AND URBAN POPULATIONS, 1980-2020  
(Percentages)

Country or territory	Percentage of rural population					Percentage of urban population				
	1980	1990	2000	2010	2020	1980	1990	2000	2010	2020
Arab region	56.1	50.2	46.3	42.6	38.6	43.9	49.8	53.7	57.4	61.4
Algeria	56.5	48.6	42.9	37.4	32.5	43.5	51.4	57.1	62.6	67.5
Bahrain	19.5	12.4	7.8	5.6	4.7	80.5	87.6	92.2	94.4	95.3
Comoros	76.8	72.1	66.8	60.6	54.1	23.2	27.9	33.2	39.4	45.9
Djibouti	25.8	19	16	14	12.3	74.2	81	84	86	87.7
Egypt	56.2	56.4	57.3	56	51.8	43.8	43.6	42.7	44	48.2
Iraq	34.5	30.4	32.5	32.3	29.9	65.5	69.6	67.5	67.7	70.1
Jordan	39.8	27.8	21.3	19.9	17.8	60.2	72.2	78.7	80.1	82.2
Kuwait	9.2	5.1	4	3.3	2.9	90.8	94.9	96	96.7	97.1
Lebanon	26.3	15.8	10.3	7.9	6.9	73.7	84.2	89.7	92.1	93.1
Libyan Arab Jamahiriya	30.7	18.2	12.4	10.3	9.1	69.3	81.8	87.6	89.7	90.9
Mauritania	72.3	56	42.3	30.3	23.1	27.7	44	57.7	69.7	76.9
Morocco	58.7	51.6	44.5	38.3	33.3	41.3	48.4	55.5	61.7	66.7
Oman	68.5	37.9	24	19.2	16.1	31.5	62.1	76	80.8	83.9
Palestine	38.9	36	33.2	30	26.5	61.1	64	66.8	70	73.5
Qatar	14.4	10.2	7.3	5.5	4.6	85.6	89.8	92.7	94.5	95.4
Saudi Arabia	34.1	21.8	13.8	10	8.4	65.9	78.2	86.2	90	91.6
Somalia	77.8	75.8	72.5	67.4	60.8	22.2	24.2	27.5	32.6	39.2
Sudan	80	73.4	63.9	55	48.2	20	26.6	36.1	45	51.8
Syrian Arab Republic	53.3	51.1	48.6	44.6	39.4	46.7	48.9	51.4	55.4	60.6
Tunisia	48.5	42.1	34.5	28.7	24.8	51.5	57.9	65.5	71.3	75.2
United Arab Emirates	28.5	19.8	13.3	9.5	7.6	71.5	80.2	86.7	90.5	92.4
Yemen	80.8	77.2	75.3	71.5	65.6	19.2	22.8	24.7	28.5	34.4

Source: Department of Economic and Social Affairs (DESA), *World Population Prospects: The 2002 Revision Population Database* (Population Division, 2003).

ANNEX TABLE 8. ESTIMATED AND PROJECTED RURAL POPULATIONS  
IN BROAD AGE GROUPS, 1980-2015

Country	1980	1985	1990	1995	2000	2005	2010	2015
Egypt								
0-14	10012752	11256375	12730743	14151638	15713892	17147450	18429423	19379777
15-64	13708182	15410792	17429309	19374617	21513455	23476102	25231215	26532318
65+	823853	926178	1047490	1164401	1292944	1410898	1516379	1594574
Total	24544787	27593345	31207542	34690656	38520291	42034450	45177017	47506669
Iraq								
0-14	2351314	2457596	2713029	3263919	3888979	4494923	497166	5610947
15-64	2377078	2484524	2742756	3299682	3931590	4544173	502614	5672425
65+	133693	139736	154260	185583	221123	255576	28268	319032
Total	4862085	5081856	5610045	6749184	8041692	9294672	1028048	11602404
Jordan								
0-14	393269	403779	401735	416,683	453949	509648	509648	570285
15-64	468986	481519	479081	496908	541349	607772	607772	680082
65+	23295	23917	23796	24682	26889	30188	30188	33780
Total	885550	909215	904612	938,273	1022187	1147608	1147608	1284147
Morocco								
0-14	3109775	3332661	3465837	3502537	3473171	3401673	3340272	3271772
15-64	7799434	8358440	8692450	8784496	8710843	8531523	8377530	8205730
65+	576620	617947	642641	649447	644001	630744	619359	606658
Total	11485829	12309048	12800928	12936480	12828015	12563940	12337161	12084160
Tunisia								
0-14	1182300	1278303	1306138	1311092	1342983	1357920	1360582	1349123
15-64	1767983	1911544	1953167	1960576	2008264	2030601	2034582	2017447
65+	181847	196613	200894	201656	206561	208859	209268	207506
Total	3132130	3386460	3460199	3473324	3557808	3597380	3604432	3574076
Syrian Arab Republic								
0-14	1391942	1640278	1892323	2135046	2398431	2733591	2755668	2943039
15-64	3260091	3841722	4432041	5000525	5617403	6402387	7311901	7809071
65+	129510	152615	176066	198650	223156	254340	323446	345439
Total	4781543	5634615	6500430	7334221	8238990	9390318	10391015	11097549
Somalia								
0-14	2216363	2171630	2214113	2007996	3888979	2452900	2697244	2911007
15-64	2457736	2408132	2455242	2226677	3931590	2720033	2990988	3228030
65+	72921	71449	72847	66065	221123	80703	88742	95775
Total	4747020	4651211	4742202	4300738	8041692	5253636	5776974	6234812
Yemen								
0-14	3653262	432316862	5064965	6198286	7155487	8125876	9146002	10142228
15-64	3202140	363770376	4261884	5215509	6020941	6837468	7695848	8889823
65+	144733	31091962	364269	445777	514618	584408	657775	401805
Total	7000135	827179200	9691118	11859572	13691046	15547752	17499625	19433856

Source: Compiled by ESCWA.

ANNEX TABLE 9. ESTIMATED AND PROJECTED URBAN POPULATIONS  
IN BROAD AGE GROUPS, 1980-2015

Country	1980	1985	1990	1995	2000	2005	2010	2015
<b>Egypt</b>								
0-14	8068248	9254625	9765257	9258362	8170108	7111550	7022577	7175223
15-64	10181818	11395208	13061691	15376383	18137545	21617898	24797785	28302682
65+	879147	942822	1102510	1322599	1701056	2086102	2539621	3233426
Total	19129213	21592655	23929458	25957344	28008709	30815550	34359983	38712331
<b>Iraq</b>								
0-14	4286686	5002404	5544971	6146081	6783021	7123077	11716834	7180053
15-64	4654922	5838476	6940244	8273318	9746410	11049827	17051386	15400575
65+	289307	365264	419740	463417	479877	528424	892732	763968
Total	9230915	11206144	12904955	14882816	17010308	18701328	29659952	23344596
<b>Jordan</b>								
0-14	705731	868221	1121265	1361317	1480051	1552352	1697352	1658715
15-64	588014	855481	1147919	1922092	2189651	2696228	3412228	3743918
65+	45705	73083	80204	83318	107111	146812	195812	236220
Total	1339450	1796785	2349388	3365727	3776813	4396392	5305392	5638853
<b>Morocco</b>								
0-14	5206225	5943339	6383163	6577463	6212829	5838327	5726728	5928228
15-64	2629566	3772560	5324550	6927504	9075157	11137477	13188470	14898270
65+	245380	274053	300359	509553	710999	955256	1129641	1418342
Total	8081171	9989952	12007072	14014520	15998985	17931060	20043839	22245840
<b>Tunisia</b>								
0-14	1529700	1660697	1833862	1802908	1555017	1269080	1134418	1160877
15-64	1732017	2185456	2755833	3424424	4102736	4810399	5462418	5926553
65+	63153	96387	169106	274344	348439	428141	462732	543494
Total	3325870	3943540	4758801	5501676	6006192	6507620	7059568	7629924
<b>Syrian Arab Republic</b>								
0-14	3022058	3702722	4264677	4439954	4321569	4181409	4637332	4814961
15-64	1054909	1349278	1788959	2625475	3678597	4971613	6016099	7095929
65+	112490	128385	166934	210350	271844	350660	383554	500561
Total	4189457	5180385	6220570	7275779	8272010	9503682	11036985	12412451
<b>Somalia</b>								
0-14	818637	810370	835887	714004	..	1161100	1504756	1756993
15-64	804264	890868	1023758	1125323	..	1647967	2046012	2690970
65+	115079	116551	115153	102935	..	132297	158258	198225
Total	1737980	1817789	1974798	1941262	..	2942364	3709026	4646188
<b>Yemen</b>								
0-14	604738	..	1301035	1516714	1608513	1536124	1573998	1851772
15-64	736860	..	1452116	2188491	2961059	4111532	5472152	6697177
65+	39267	..	..	..	..	..	..	305195
Total	1380865	..	2622882	3663428	4490954	5548248	6975375	8854144

Source: Compiled by ESCWA.

Note: Two dots (..) indicate that data are not available.

ANNEX TABLE 10. AGE-STRUCTURAL TRANSITION OF URBAN POPULATIONS  
IN SELECTED ARAB COUNTRIES, 1980-2015

Country	1980	1985	1990	1995	2000	2005	2010	2015
Egypt								
0-4	20.55	19.39	17.62	13.02	11.12	10.18	9.08	7.89
5-14	21.63	23.46	23.18	22.65	18.05	12.89	11.36	10.65
15-24	18.75	17.16	16.67	19.19	21.56	22.02	18.74	15.22
25-64	34.47	35.62	37.91	40.04	43.20	48.13	53.43	57.89
65+	4.60	4.37	4.61	5.10	6.07	6.77	7.39	8.35
Iraq								
0-4	17.67	16.29	16.47	15.42	14.48	13.06	13.61	9.61
5-14	28.77	28.35	26.50	25.88	25.40	25.03	25.89	21.14
15-24	19.10	20.61	20.90	20.76	19.88	20.02	20.71	21.37
25-64	31.32	31.49	32.89	34.83	37.42	39.06	36.77	44.60
65+	3.13	3.26	3.25	3.11	2.82	2.83	3.01	3.27
Jordan								
0-4	20.54	18.61	18.52	14.76	14.62	12.00	11.03	9.76
5-14	32.15	29.72	29.21	25.69	24.56	23.34	20.96	19.67
15-24	17.22	19.50	21.42	22.42	20.03	19.79	19.17	18.39
25-64	26.68	28.06	27.44	34.66	37.94	41.54	45.16	48.00
65+	3.41	4.07	3.41	2.48	2.84	3.34	3.69	4.19
Morocco								
0-4	25.95	23.95	19.12	15.15	12.06	10.19	9.97	9.46
5-14	38.48	35.54	34.04	31.78	26.77	22.37	18.60	17.19
15-24	21.75	20.06	20.46	21.00	22.01	21.90	19.54	16.47
25-64	10.79	17.71	23.88	28.43	34.71	40.21	46.26	50.50
65+	3.04	2.74	2.50	3.64	4.44	5.33	5.64	6.38
Tunisia								
0-4	18.65	17.08	14.49	10.27	6.65	5.87	5.88	5.47
5-14	27.34	25.03	24.05	22.50	19.24	13.65	10.19	9.74
15-24	21.35	20.77	19.56	19.47	20.77	20.93	18.35	13.88
25-64	30.75	34.67	38.35	42.77	47.54	52.99	59.01	63.79
65+	1.90	2.44	3.55	4.99	5.80	6.58	6.55	7.12
Syrian Arab Republic								
0-4	39.35	38.23	33.42	27.06	24.52	22.83	21.76	19.39
5-14	32.79	33.23	35.13	33.96	27.72	21.16	20.26	19.40
15-24	8.71	9.23	10.65	14.00	17.28	17.52	14.55	10.71
25-64	16.47	16.82	18.09	22.09	27.19	34.79	39.96	46.46
65+	2.69	2.48	2.68	2.89	3.29	3.69	3.48	4.03
Somalia								
0-4	22.84	16.20	17.36	14.52	..	17.26	15.32	13.24
5-14	24.27	28.38	24.97	22.24	..	22.22	25.27	24.58
15-24	18.13	19.60	21.27	25.02	..	18.65	17.90	19.65
25-64	28.15	29.41	30.57	32.91	..	37.38	37.25	38.27
65+	6.62	6.41	5.83	5.30	..	4.50	4.27	4.27
Yemen								
0-4	40.72	..	..	..	..	..	..	13.29
5-14	3.04	..	..	..	..	..	..	7.63
15-24	40.96	..	..	..	..	..	..	33.14
25-64	12.44	..	..	..	..	..	..	42.50
65+	2.85	..	..	..	..	..	..	3.45

Source: ESCWA, computed from annex table 9.

Note: Two dots (..) indicate that data are not available.



ANNEX TABLE 11. EXPONENTIAL GROWTH RATE FOR TOTAL, URBAN AND RURAL POPULATIONS  
IN BROAD AGE GROUPS IN SELECTED ARAB COUNTRIES, 1980-2015  
(Percentages)

Country	1980-1985	1985-1990	1990-1995	1995-2000	2000-2005	2005-2010	2010-2015
<b>Egypt</b>	<b>0-14</b>						
Total	2.52	1.85	0.80	0.40	0.31	0.96	0.85
Urban	2.34	1.07	-1.07	-2.50	-2.78	-0.25	0.43
Rural	2.74	2.46	2.12	2.09	1.75	1.44	1.01
	<b>15-64</b>						
Total	2.30	2.58	2.62	2.64	2.57	2.08	1.83
Urban	2.25	2.73	3.26	3.30	3.51	2.74	2.64
Rural	2.34	2.46	2.12	2.09	1.75	1.44	1.01
	<b>65+</b>						
Total	1.86	2.80	2.91	3.71	3.11	2.97	3.48
Urban	1.40	3.13	3.64	5.03	4.08	3.93	4.83
Rural	2.34	2.46	2.12	2.09	1.75	1.44	1.01
	<b>Iraq</b>						
	<b>0-14</b>						
Total	2.33	2.03	2.61	2.52	1.70	1.00	0.92
Urban	3.09	2.06	2.06	1.97	0.98	9.95	-9.79
Rural	0.88	1.98	3.70	3.50	2.90	-44.04	48.47
	<b>15-64</b>						
Total	3.37	3.03	3.57	3.34	2.62	2.37	3.65
Urban	4.53	3.46	3.51	3.28	2.51	8.68	-2.04
Rural	0.88	1.98	3.70	3.50	2.90	-44.04	48.47
	<b>65+</b>						
Total	3.54	2.56	2.46	1.54	2.24	3.22	3.24
Urban	4.66	2.78	1.98	0.70	1.93	10.49	-3.12
Rural	0.88	1.98	3.70	3.50	2.90	-44.04	48.47
	<b>Jordan</b>						
	<b>0-14</b>						
Total	2.92	3.60	3.10	1.68	1.28	1.36	0.20
Urban	4.14	5.12	3.88	1.67	0.95	1.79	-0.46
Rural	0.53	-0.10	0.73	1.71	2.31	0.00	2.25
	<b>15-64</b>						
Total	4.70	3.93	7.93	2.43	3.81	3.92	1.92
Urban	7.50	5.88	10.31	2.61	4.16	4.71	1.86
Rural	0.53	-0.10	0.73	1.71	2.31	0.00	2.25
	<b>65+</b>						
Total	6.81	1.39	0.75	4.31	5.57	4.89	3.56
Urban	9.39	1.86	0.76	5.02	6.31	5.76	3.75
Rural	0.53	-0.10	0.73	1.71	2.31	0.00	2.25
	<b>Morocco</b>						
	<b>0-14</b>						
Total	2.18	1.20	0.46	-0.80	-0.94	-0.38	0.29
Urban	2.65	1.43	0.60	-1.14	-1.24	-0.39	0.69
Rural	1.38	0.78	0.21	-0.17	-0.42	-0.36	-0.41
	<b>15-64</b>						
Total	3.02	2.89	2.28	2.48	2.01	1.84	1.38
Urban	7.22	6.89	5.26	5.40	4.10	3.38	2.44
Rural	1.38	0.78	0.21	-0.17	-0.42	-0.36	-0.41

ANNEX TABLE 11 (continued)

Country	1980-1985	1985-1990	1990-1995	1995-2000	2000-2005	2005-2010	2010-2015
	<b>65+</b>						
Total	1.63	1.11	4.12	3.12	3.15	1.96	2.93
Urban	2.21	1.83	10.57	6.66	5.91	3.35	4.55
Rural	1.38	0.78	0.21	-0.17	-0.42	-0.36	-0.41
<b>Tunisia</b>	<b>0-14</b>						
Total	1.61	1.32	-0.17	-1.44	-1.96	-1.03	0.12
Urban	1.64	1.98	-0.34	-2.96	-4.06	-2.24	0.46
Rural	1.56	0.43	0.08	0.48	0.22	0.04	-0.17
	<b>15-64</b>						
Total	3.15	2.78	2.68	2.53	2.26	1.83	1.16
Urban	4.65	4.64	4.34	3.61	3.18	2.54	1.63
Rural	1.56	0.43	0.08	0.48	0.22	0.04	-0.17
	<b>65+</b>						
Total	3.58	4.67	5.04	3.07	2.76	1.07	2.22
Urban	8.46	11.24	9.68	4.78	4.12	1.55	3.22
Rural	1.56	0.43	0.08	0.48	0.22	0.04	-0.17
<b>Syrian Arab Republic</b>	<b>0-14</b>						
Total	3.82	2.84	1.31	0.44	0.57	1.34	0.96
Urban	4.06	2.83	0.81	-0.54	-0.66	2.07	0.75
Rural	3.28	2.86	2.41	2.33	2.62	0.16	1.32
	<b>15-64</b>						
Total	3.70	3.62	4.07	3.96	4.03	3.17	2.24
Urban	4.92	5.64	7.67	6.75	6.02	3.81	3.30
Rural	3.28	2.86	2.41	2.33	2.62	2.66	1.32
	<b>65+</b>						
Total	2.99	3.99	3.52	3.82	4.01	3.12	3.59
Urban	2.64	5.25	4.62	5.13	5.09	1.79	5.32
Rural	3.28	2.86	2.41	2.33	2.62	4.81	1.32
<b>Somalia</b>	<b>0-14</b>						
Total	-0.35	0.45	-2.28	2.83	3.01	2.10	
Urban	-0.20	0.62	-3.15	4.86	5.19	3.10	
Rural	-0.41	0.39	-1.95	2.00	1.90	1.53	
	<b>15-64</b>						
Total	0.23	1.06	-0.74	2.65	2.85	3.23	
Urban	2.05	2.78	1.89	3.81	4.33	5.48	
Rural	-0.41	0.39	-1.95	2.00	1.90	1.53	
	<b>65+</b>						
Total	0.00	0.00	-2.13	2.31	2.96	3.48	
Urban	0.25	-0.24	-2.24	2.51	3.58	4.50	
Rural	-0.41	0.39	-1.95	2.00	1.90	1.53	

Source: ESCWA, computed from annex table 9.