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REGIONAL PROFILE OF THE ARAB REGION

DEMOGRAPHIC OF AGEING:

TRENDS, PATTERNS, AND PROSPECTS INTO 2030 AND 2050

Contents

Introduction

The Arab region is currently experiencing a historic demographic change from a society with high fertility and mortality to one with reduced fertility and mortality rates. This important change is leading to a gradual shift in the population's age structure towards a greater proportion of older persons and a smaller proportion of children and youth, which results in population ageing.

Although most countries in the Arab region will begin ageing in the next few decades, they will do so at different rates. At the forefront of the ageing transition are Lebanon and Tunisia, which have already started the ageing process, while Mauritania, Somalia, Iraq, Comoros and Sudan are at the furthest end of the transition, which is expected to start only after 2050 and end after 2100.

In 2002, the ageing phenomenon has been hailed by the Madrid International Plan of Action on Ageing as a "*demographic triumph*" that benefited from several decades of scientific advances, improved nutrition, hygiene, sanitation and better access to healthcare and medication for older persons. In the context of the Arab region, however, ageing brings with it its own set of challenges, as countries are striving to meet the needs of large populations of children and youth but are also equally required to ensure the wellbeing of older persons without compromising the needs of any social group.

Governments today, especially in their pursuit of implementing the 2030 Agenda for Sustainable Development, which pledges to leave no one behind, have the opportunity to better prepare for and mitigate those challenges by committing themselves to protecting the rights, well-being, security and dignity of older persons in the Arab region and by facilitating older person's meaningful participation and contribution to society and development.

Objective

This technical paper aims to gather the most updated and comprehensive demographic evidence on ageing in the Arab region, including past and future demographic trends in all 22 Arab countries over an extended period of time spanning back from 1970 up to 2030 and 2050, in an attempt to make available a rigorous, concise and timely analysis of determinants of population ageing as a consequence of past, current and foreseen changing trends and patterns in population size, growth, fertility, mortality and migration. The paper then presents and discusses changes in the population age structure and dependency ratios in countries across the region, employing a systematic lens on the ageing phenomenon.

Research Methodology, Definitions and Sources

Based on UN literature and definition, population ageing describes the demographic phenomenon "whereby older individuals become a proportionately larger share of the total population".[1] This paper defines "older persons" as the population over the age of 60, consistent with the methodology used by the United Nations Department of Economic and Social Affairs (UN DESA),[2] and also paying equal regard to national definitions of older persons which may differ from one country to another in the Arab region. It is also important to note that this document draws on complimentary literature and studies that have used alternate age brackets to define older persons, such as age 65 and above.[3]

Two main types of indicators are used to describe the ageing process: a) the proportion of the population aged 60 and above relative to the total population, and b) dependency ratios. The ageing transition takes place when the proportion of older persons aged 65 and above in a country's population grows from 7 to 14 per cent of the population. The total dependency ratio is the sum of the child dependency ratio and the old-age dependency ratio; the child dependency ratio is the number of persons aged 0 to 14 years per one hundred persons aged 15 to 64 years; the old-age dependency ratio is the number of persons 65 years and above per one hundred persons aged 15-64 years.

Data compilations on various demographic indicators and trends are primarily drawn from the *World Population Prospects: The 2017 Revision*, the official United Nations' world population estimates and projections, prepared biennially by the Population Division of UN DESA. These data consist of estimates and projections of population size, structured by age and sex, and population determinants (fertility, mortality and net migration). In general, the *UN World Population Prospects* data provide standard and consistent set of population figures used throughout the United Nations system as the basis for activities requiring population information, which are mostly built on periodic censuses and national data.[4] Data from other UN sources, such as the World Health Organization (WHO) and the United Nations High Commissioner for Refugees (UNHCR), have also been incorporated into this technical paper.

This document uses "medium variant" population projections through the year 2050, as it represents the median of several thousand projected trajectories of specific demographic components for each country. The use of the medium variant, as opposed to the low, high, or constant-fertility variants, is judged to yield more accurate and relevant

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[1] DESA, Population Division, 2001.

[2] Population ageing (or demographic ageing) is defined by the United Nations as "the process whereby older individuals become a proportionately larger share of total population" (DESA, Population Division, 2001).

[3] The old age definition is often linked to changes observed in social roles and activities, and to the retirement age. The old age cut-off is also associated with a change in mental and physical capacities. It varies from one context to another, whereby 60 and 65 years old are the two cut-off ages that are most frequently used. For example, WHO used the threshold of 65 years in 2011 to define older persons (WHO, 2011).

[4] DESA, 2017b.

projections that are closest to the development of population structures across the Arab region (see Annex 1).

According to the United Nations' population projections, the medium variant assumes a decline in fertility rates in patterns similar to other countries and regions in the world. Therefore, such projections are subject to a certain degree of uncertainty, which increases as calculations move further away from the base year, 2015, especially at the country level.[5] While the projections used in this paper focus principally on varying hypotheses about fertility, it is also possible that the other demographic determinants, such as mortality and migration, take different trends in the future than predicted and that their deviation from projections can in fact affect the extent and the pace of population ageing. Other projections of demographic scenarios are also available and vary widely (see Annex 2 for more details).[6]

Other important considerations to keep in mind pertaining to the future projections on ageing in the Arab region include ongoing armed conflicts and various related or non-related migration trends in many countries of the region, which may also impact demographic change in ways that the data cannot yet predict.

In addition, ageing trends predicted for some countries in the Arab region may reverse after 2050, given that recent data show an increase in fertility levels after periods of decreased fertility in countries such as Egypt, Tunisia (between 2010-2015) and Algeria (between 2000-2010), a phenomenon commonly referred to as "*counter demographic transition*" (see Annex 5 on Total Fertility).

Detailed and comprehensive demographic data are analyzed for each of the 22 Arab countries. Moreover, and to better capture and understand the ageing process unfolding in the region at different levels, countries are grouped into three major categories according to *the expected date of the onset of the ageing transition*. The first category corresponds to countries that are "*fast ageing*", i.e. those that will begin the ageing transition period before 2030. This group includes Lebanon, Tunisia, Morocco and Algeria.

The second category includes countries that will experience a "*moderate ageing*" as they are expected to enter into the ageing transition around the period between 2030 and 2050. This category encompasses almost half of the countries in the region, namely Djibouti, Egypt, Libya, Jordan, Syrian Arab Republic, and all the Gulf Cooperation Council (GCC) countries[7] (see table 1).

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[5] Detailed information on the uncertainty bounds for different components of the demographic trends at the country level is available on the website of the Population Division: www.unpopulation.org.

[6] For example, the Wittgenstein Centre for Demography and Human Capital (WCDHC) has developed projections to demonstrate different possible population realities for the future. The results of these projections show very little difference in the share of the older population aged 60 and above in Arab countries by 2030, similarly to projections by the UN WPP. However, by 2050, the WCDHC predicts that the proportion of this age group will vary quite significantly (Lutz, Butz, and Samir K.C., 2014).

[7] GCC countries are: Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirates.

The third and final category of "*slow ageing*," countries that will begin the ageing transition period after 2050, is comprised of Comoros, Iraq, Mauritania, Palestine, Somalia, Sudan and Yemen.

Table 1: Fast, moderate and slow ageing countries in the Arab region

Countries	**Pace of Ageing**	**Estimated Ageing Transition Period**
Lebanon, Tunisia, Morocco and Algeria	Fast	Before 2030
Djibouti, Egypt, Libya, Jordan, Syria and GCC countries	Moderate	2030-2050
Comoros, Iraq, Mauritania, Palestine, Somalia, Sudan and Yemen	Slow	After 2050

A. Population Size and Growth

Population growth refers to the increase in the number of inhabitants of a given place. Trends in population growth at the regional and national levels are important for policymakers to consider and undertake timely and strategic preparation plans and actions for all the various development impacts of anticipated population change. The size of different age groups within the population are particularly critical to consider.

Population change, including age structure transitions and population ageing, touch upon virtually every aspect of life. It has profound implications for the economy, labour market, employment, pensions, healthcare system, social protection, education, housing, sanitation, water, energy, food, consumption, environment and human mobility.

Population growth can occur at different rates according to variations in fertility, mortality and migration. The trends of these three causal factors also determine the extent of population ageing.

In the Arab region, one of the most prominent demographic features is the exponential growth of its population size, albeit at varying rates across countries. Since 1970, the total population in the region has more than tripled, from 123.5 million in 1970 to 284.1 million in 2000 and to over 398.5 million in 2015. Hence, the Arab region alone accounted for nearly 5.4 per cent of the world's population in 2015, compared to 3.3 per cent in 1970 and 4.6 per cent in 2000 (table 2 and figure 1).

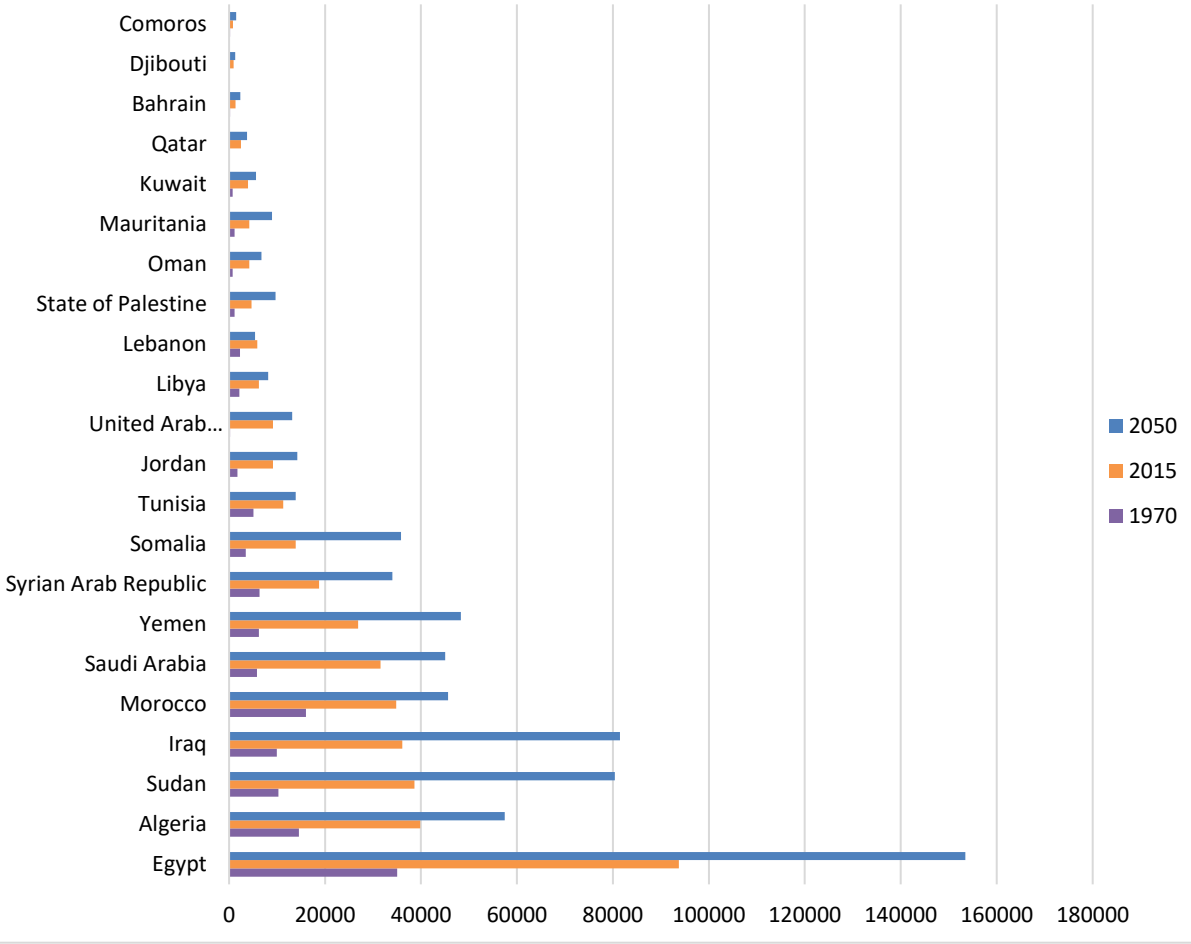
Population in the Arab region is expected to expand from nearly 400 million in 2015 to 520 million in 2030 and reach 676 million by 2050.

Table 2: Population size in the Arab region (1970-2050)

Year	Population size (million)	Proportion of world's share (in %)
1970	123	3.3
2015	398	5.4
2030	521	6.1
2050	676	6.9

Source: United Nations, World Population Prospects (2017). Medium Variant.

Figure 1: Population Size by Country in the Arab Region (in thousands): 1970, 2015 and 2050



Source: United Nations, World Population Prospects (2017). Medium Variant.

Despite the significant increase in population size, the annual growth rate has been slowing recently, with a decrease from 2.82 per cent between 1970-2000 to 2.28 per cent during the period of 2000-2015 (table 3). However, the Arab region's population has grown more rapidly than the global average (1.70 per cent from 1970-2000 and 1.23 per cent from 2000-2015) and the less developed regions[8] (2.05 per cent from 1970-2000 and 1.43 per cent from 2000-2015).[9]

[8] The UN Department of Economics and Social Affairs Population Division defines the "less developed regions" as comprised of all countries in Africa, Asia (excluding Japan), Latin America and the Caribbean plus Melanesia, Micronesia and Polynesia. See https://esa.un.org/poppolicy/ExplanatoryNotes.aspx.

[9] Growth rates are computed by the author using data from United Nations, *World Population Prospects* (2017). Medium Variant.

Table 3: Annual growth rate of population in the Arab region (1970-2050)

Year	Growth rate (%)
1970-1980	3.07
1990-2000	2.37
2010-2015	2.24
2020-2030	1.73
2040-2050	1.21

Source: United Nations, World Population Prospects (2017). Medium Variant.

The noticeable increase observed in the size of the Arab region's population has also occurred in the size of the population of older persons, which expanded more than threefold from 1970 to 2015. Hence, the number of older persons aged 60 years and above has grown from 7 million in 1970 to nearly 27 million in 2015. The proportion of the older population to the total population has varied over this period from 5.7 per cent to 6.7 per cent, respectively. Analysis of projected data for 2015-2050 reveals that these demographic trends are expected to continue. The region's population will continue to increase in size, growing at a rate faster than that of the global average. The region's population is expected to grow to over 520.8 million by 2030 and to 676.3 million by 2050. This growth will occur at a rate of about 1.52 per cent per year, which is slower than the rate from 1970-2015, but is still faster than that of the anticipated global average, which is 0.80 per cent. As a result, the region's proportion of the world population is projected to increase to 6.9 per cent by 2050.

Regarding the size of the older population in the region, by 2030, the population aged 60 years and above is projected to be 49.6 million, comprising 9.5 per cent of the total population.[10] By 2050, older persons aged 60 and above will exceed 102 million, and they will constitute 15.1 per cent of the total population in the Arab region (table 4). The number of older persons projected for 2030 is over 1.8 times larger than that in 2015, which indicates an *ageing boom* driven mainly by past high fertility in the 1970's.

[10] This projection holds true irrespective of the assumed fertility trends that differ across low, medium and high variant projections.

Table 4: Number and proportion of older persons (60 +) in the Arab region (2015-2050)

Year	Number of older[11] persons (millions)	Proportion of older persons in total population (%)
2015	27	6.7
2030	50	9.5
2050	102	15.1

Source: United Nations, World Population Prospects (2017). Medium Variant.

Within the Arab region, population sizes (Annex 3) and growth rates (Annex 4) are expected to vary widely across countries. As figure 1 shows, by 2050, Egypt will continue to have the largest population in the region (153.4 million), followed by countries whose populations are projected to more than double in size, including Iraq (81.5 million), Sudan (80.4 million), Algeria (57.4 million), and Yemen (48.3 million). Morocco and Saudi Arabia are both projected to have populations of slightly more than 45 million by 2050. The populations of the Syrian Arab Republic and Somalia are expected to grow to 34 million and 35.8 million, respectively. Population size is projected to increase to 14.2 million in Jordan, 13.9 million in Tunisia, and 13.2 million in the United Arab Emirates (UAE). All other countries in the region are expected to have less than 10 million inhabitants by 2050, ranging from 9.7 million in Palestine to 1.3 million in Djibouti (for more details, see Annex 3).

In terms of variation in population growth rates amongst countries in the region, between 2020-2030, the Syrian Arab Republic is expected to have the highest growth rate reaching 3.47 per cent per year, whilst Tunisia is expected to have the slowest growth rate of 0.76 per cent. Only in Lebanon will the population experience a negative demographic growth at an average annual rate of -1.14 per cent. Figure 2 demonstrates the variation of growth rates across countries in the Arab region by ten-year periods from 1970 to 2050. It is divided into three categories of ageing countries: figure 2A features "*fast ageing countries*", figure 2B depicts "*moderate ageing countries*" and figure 2C shows "*slow ageing countries*".

The variance and fluctuation in growth rates of population in the Arab region over time and between countries can likely be attributed to economic disparities and differences in social development levels, as well as to instability, armed conflicts, international migration and refugee movements.[12]

[11] These are approximate figures, for more details see Annex 13.

[12] Saxena, 2009.

Figure 2A: Annual demographic growth Rate (in %) of fast ageing countries in the Arab region: 1970 until 2050

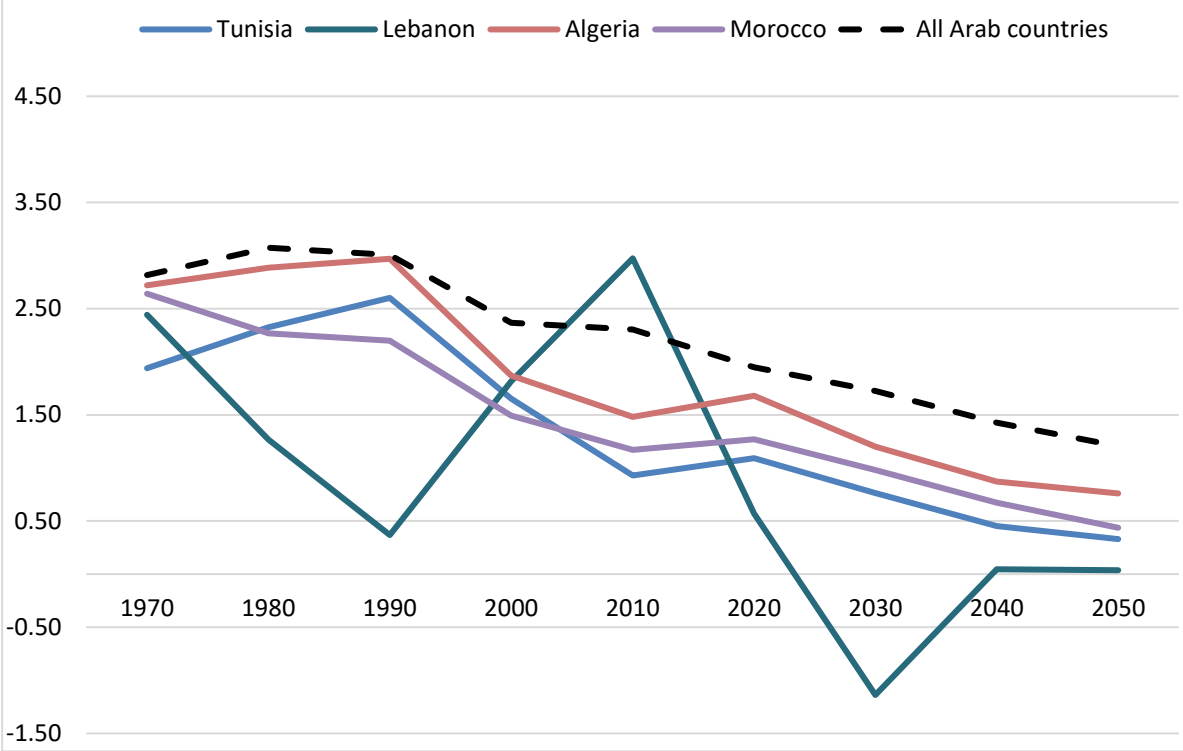


Figure 2B: Annual demographic growth rate (in %) of moderate ageing countries in the Arab region: 1970 until 2050

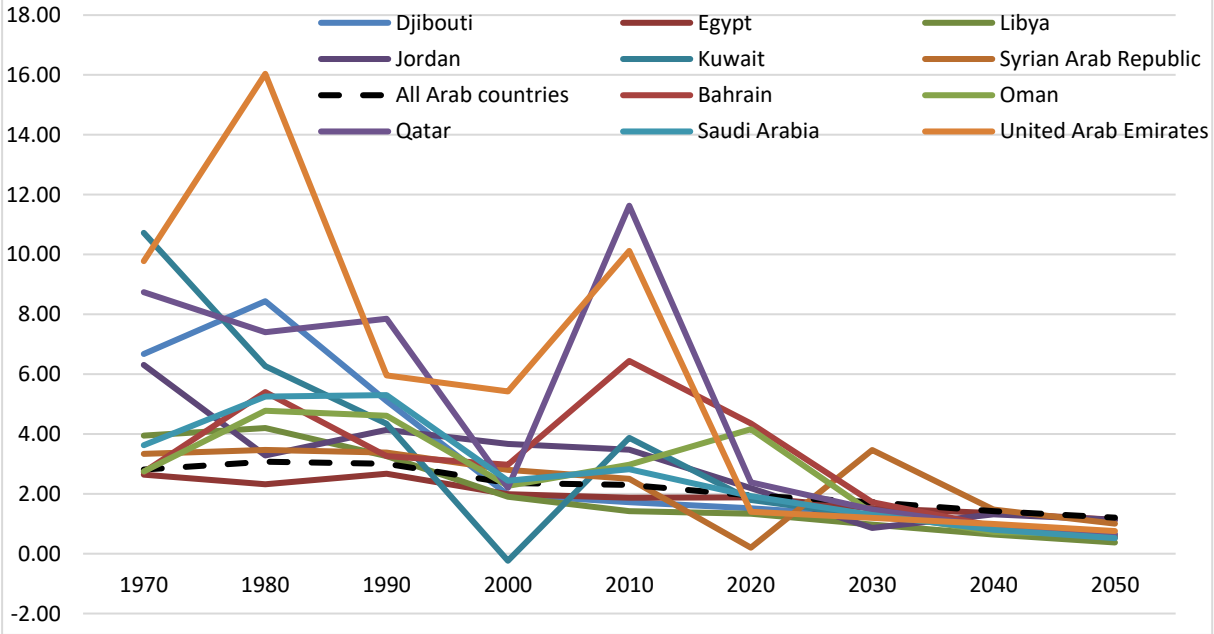
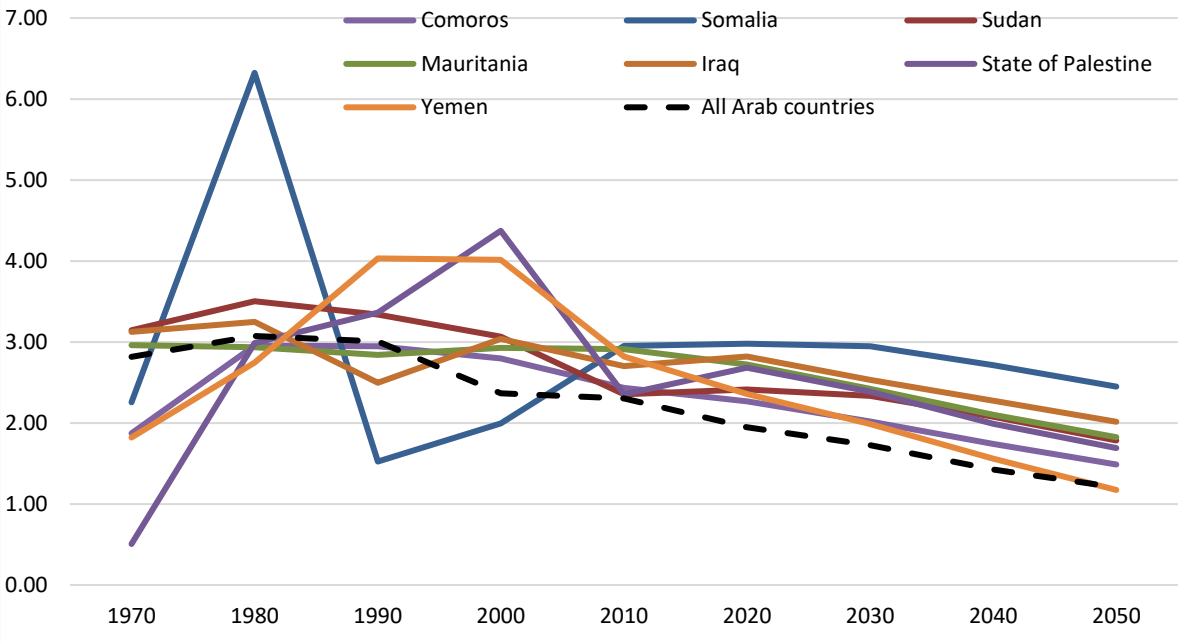


Figure 2C: Annual demographic growth rate (in %) of slow ageing countries in the Arab region: 1970 until 2050



Source: United Nations, World Population Prospects (2017), Medium Variant.

Summary of key points:

- Since 1970, the size of the total population in the Arab region has more than tripled, expanding from 123.5 million to 398.5 million in 2015, and is expected to grow further to 520.8 million by 2030 and up again to 676.3 million by 2050.
- The population growth will occur more slowly, at an average annual growth rate of 1.52 per cent, between 2015 and 2050.
- Many countries are projected to have double the size of their population by 2050, featured by increased urbanization and large rural populations.
- As a result of the population expansion, the number of older persons in the Arab region has grown from 7 million in 1970 to 27 million in 2015. Projections indicate that this rise will continue and reach almost 50 million by 2030 and 102 million in 2050.

A.1. Fertility

Fertility has a significant impact on population growth and also population ageing; therefore, it is important to understand both its determinants and effects. Fertility is measured by the Total Fertility Rate (TFR), which refers to

Fertility decline is the main driver of population ageing in the Arab region.

the average number of live births a woman would have over her reproductive life given age-specific rates.[13]

The two principal and direct causes of fertility levels are marriage (age at marriage and duration of marriage) and birth control (contraception practice). While the Arab region witnessed very high fertility levels in the past, fertility rates have been steadily declining since the 1980's in all countries, except for very few, such as Somalia, where total fertility rate continued to grow from 7.0 in 1980 to 7.4 in 1990 and reached 7.6 in 2000, before it commenced its downward and steady descent. Algeria, Egypt and Tunisia have all experienced a resurgent rise in fertility rates between 2000-2015, after which they assumed a continued and steady decline (see Annex 5).

Table 5: Fertility rates in the Arab region (1970-2050)

Year	Arab Region	World Average
1970	6.9	4.7
1980	6.3	3.7
1990	5.2	3.2
2000	3.9	2.7
2015	3.4	2.5
2030	2.8	2.4
2050	2.4	2.2

Source: ESCWA calculations based on United Nations, World Population Prospects (2017). Medium Variant.

The rising age of marriage in many countries in the Arab region is well documented as the primary determinant of fertility decline in the region.[14] The growing use of contraception among women in many countries has also contributed to decline in fertility.[15] This decreasing rate of fertility has been one of the principal causes of population ageing in the Arab region, except for GCC countries, where international migration has also constituted a major component of demographic change.

However, the projected size of the older population by 2030 and 2050 depends only on fertility rates prior to 1970 and 1990, since those born before these years will be over 60 years of age by 2030 and 2050, respectively. Therefore, projected levels of fertility after 2015 will not affect the size of the older population by 2030 or 2050, they will only affect

[13] UNdata, Glossary, "Total fertility rate". Available at http://data.un.org/Glossary.aspx?q=total+fertility+rate (accessed on 16 February 2018).

[14] See for example, Rashad, 2015 and Roudi-Fahimi and Kent, 2008.

[15] Roudi-Fahimi, Farzaneh, and others, 2012.

it after 2050. While fertility rates from 2015 to 2050 will not influence the number of older persons by 2030 or 2050, they will, nevertheless, affect the proportion of older persons within the total population.

The more rapid fertility decline is combined with reduced mortality, the higher the per cent of population 60 years and above, especially over the long-term. Hence, countries in the advanced stage of the demographic transition, such as Lebanon and Tunisia, are already experiencing increases in the relative numbers of older persons, sooner than those in the midst or beginning of the demographic transition, such as Djibouti and Comoros (see Annex 14 for individual country data).

Despite fertility decline across the Arab region, many countries are expected to still have fertility rates above replacement level by 2050.

The decline of total fertility rates in the Arab region in the past has also contributed to slower population growth rates. In the future, most countries in the Arab region will be experiencing further decline in fertility rates to below replacement level,[16] meaning there will be fewer births than had been in the past, causing the proportion of children and youth to decrease and that of the older population to increase. Many countries, however, are expected to still feature fertility rates above replacement level by 2050, namely Comoros, (2.8 children per woman (CPW)), Egypt (2.3 CPW), Iraq (3.0 CPW), Jordan (2.2 CPW), Mauritania (3.2 CPW), Somalia (3.7 CPW), Palestine (2.6 CPW) and Sudan (3.0 CPW).

As figure 3 shows, the TFR level in 1970 was very high in all countries in the Arab region, ranging from 4.9 CPW in Lebanon to 8.0 in Libya. The regional average rate of fertility was 6.9 CPW. In addition, countries with quasi-natural fertility[17] included Somalia, Comoros, Algeria, Oman, Kuwait, Saudi Arabia, Palestine, Iraq, Jordan, Libya, Yemen and the Syrian Arab Republic, each with fertility rates of above 7 CPW in 1970.

Since 1980, fertility in the Arab region has begun to steadily decline in all countries, except in Somalia, where it only started decreasing in 2000, and in Algeria, where it showed an increase from 2000-2010 before declining again. By 2010, only six of the 22 countries had near replacement or below replacement levels of fertility (Lebanon (1.6 CPW); UAE (1.9 CPW); Tunisia and Qatar (2.1 CPW); Bahrain and Kuwait (2.2 CPW)).

[16] Replacement level fertility is the level of fertility at which a population exactly replaces itself from one generation to the next. It is achieved when the fertility rate amounts to an average of 2.1 children per woman.

[17] Natural fertility refers to fertility rates of a population not practicing any form of birth control. It has been estimated that a woman who is continuously in a sexual union between the ages of 15 and 50 years, not breastfeeding her children, and not practicing any form of birth control, would bear 15 children on average. Quasi-natural fertility rate is estimated at women bearing 6 or more children, on average. This usually results from practices of almost no birth control, but delayed age at marriage.

Figure 3A: Total fertility in fast-ageing countries: 1970-2050
(number of children per woman**)**

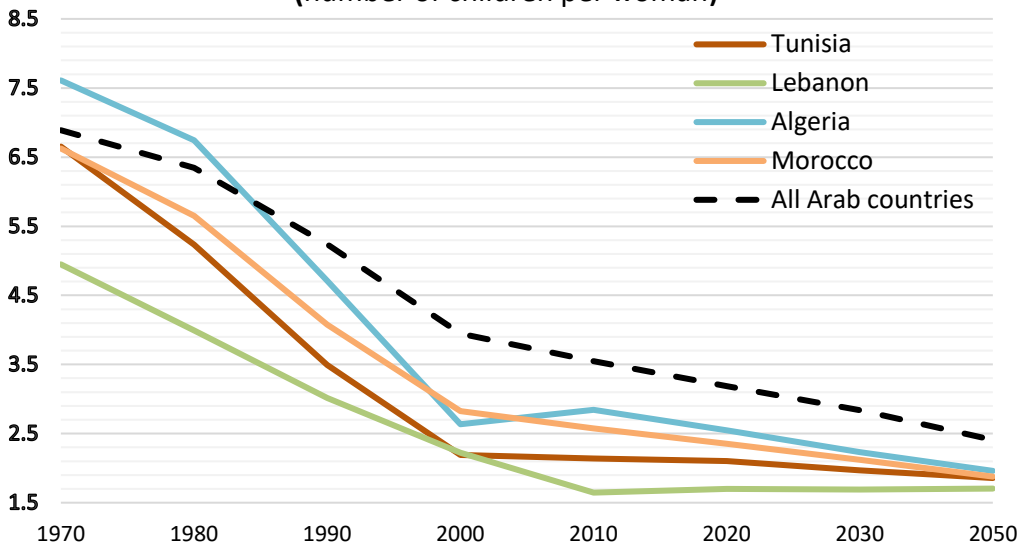


Figure 3B: Total fertility in moderate-ageing countries: 1970-2050
(number of children per woman**)**

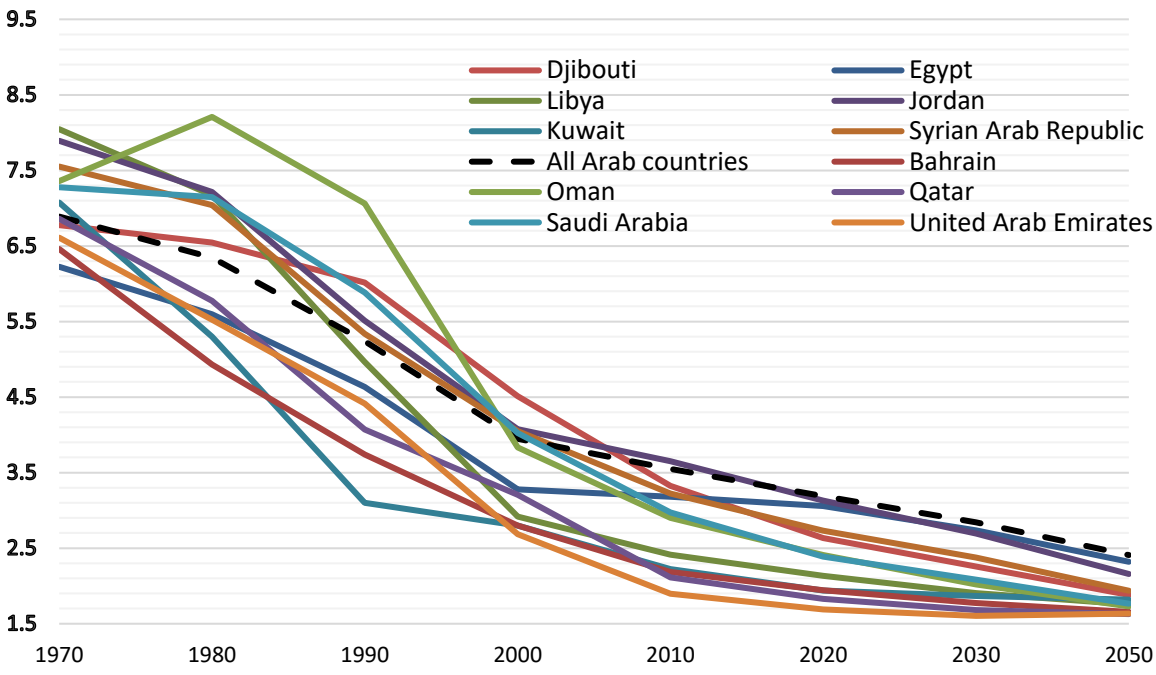
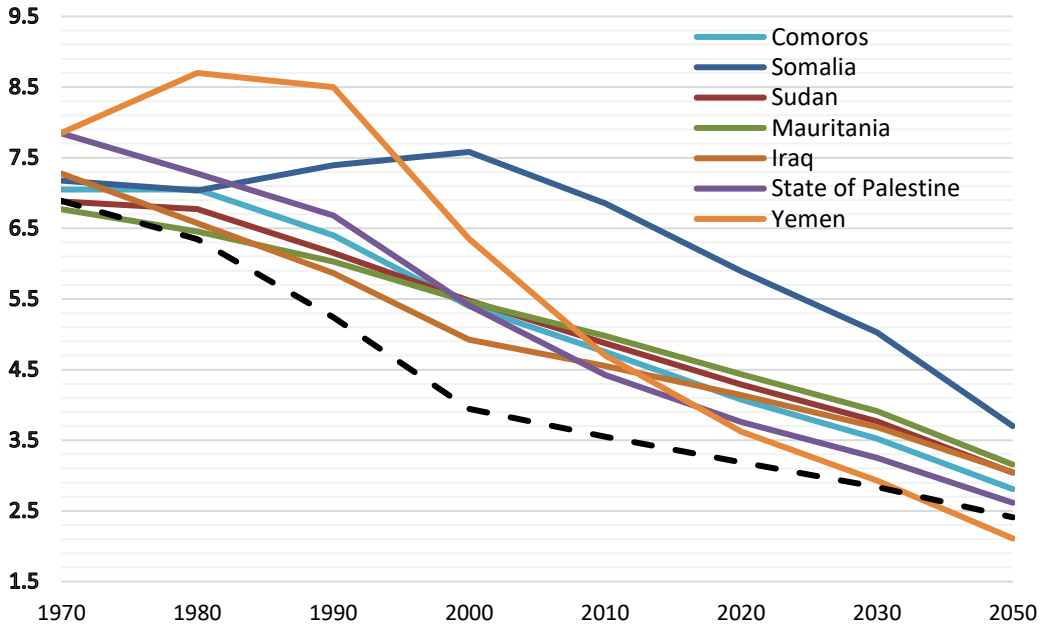


Figure 3C: Total fertility in slow-ageing countries: 1970-2050
(number of children per woman**)**



Source: United Nations, World Population Prospects (2017), Medium Variant.

***Note**: Total fertility rate for all countries in the Arab region is computed using population weights.*

Yet, these fertility trends are not linear in the Arab region. Fertility started to rapidly decline in the 1980's and 1990's, followed by deceleration since the year 2000. In the most recent decade, fertility rates have been slowing even further for some countries; yet for a few others, fertility is rising. The latter situation is referred to as a "demographic counter-transition."[18] Available national data for three countries show an increase in total fertility rates between 2008 and 2014: from 3 to 3.5 CPW in Egypt,[19] from 2.8 to 3 in Algeria,[20] and from 2.1 to 2.4 in Tunisia.[21] For many other countries, namely Comoros, Iraq, Mauritania, Palestine, Somalia, Sudan and Yemen, fertility remains high (above 4 CPW in 2015) (see Annex 5).

However, UN medium variant hypotheses assume that in the future, fertility is likely to decline across all countries in the Arab region, as shown in Figure 3. By 2050, the total fertility rate is projected to range between 1.6 and 3.7 CPW, with an estimated regional average of 2.4 CPW, higher than the global average fertility rate of 2.2 CPW. As mentioned previously, several countries will be reaching below replacement fertility levels.

These fertility figures demonstrate that countries in the Arab region are moving towards ageing populations at varying rates. The initial periods of high fertility and high number

[18] Courbage, 2017.
[19] El-Zanaty and Way, 2001.
[20] Algeria, National Office of Statistics, 2015.
[21] Tunisia, National Institute of Statistics, 2016.

of births in the 1970s, followed by a decrease in fertility rates over the past couple of decades, and an increase in life expectancy, has resulted in an increase in the number of older persons which will continue to grow significantly by 2050.

Summary of key points:

- Whilst the Arab region had very high fertility in 1970 amounting to an average rate of 6.9 CPW, from 1980 onwards the decline in fertility has been steady and noticable, reaching an average rate of 3.4 CPW in 2015.
- Between 2008-2014, three countries, namely Algeria, Egypt and Tunia, have experienced "counter demographic transition", in which they witnessed an increase in fertility rates after periods of steady decline.
- Rising age of marrigae is the primary cause behind fertility decline in the Arab region.
- By 2050, fertility in the Arab region will decline to an average of 2.4 CPW, however, few countries will continue to have high fertility above 3.0 CPW.
- Overall, past high fertility and high number of births in the 1970s, followed by a decrease in fertility over the past couple of decades, and an increase in life expectancy, has resulted in an increase in the number of older persons, which will continue to grow significantly by 2050.

A.2. Mortality

In addition to fertility, population growth and ageing in the Arab region can also be attributed to another important factor: mortality decline. People in the region are now living longer, especially women. This trend of greater longevity, which is undoubtedly a milestone achievement in the region, is expected to continue leading to demographic shifts.

In general, improved life expectancy across the developing world has occurred mainly because of declining child mortality rates over the past four decades. Factors such as income growth, public spending on basic health services, immunization, better hygiene and sanitation, more infrastructure, urbanization and better nutrition have all contributed to this decline and to increasing life expectancy at older ages.[22]

The effect of declining mortality rates between 2015 and 2030 will not have as much of an impact on ageing as high fertility in the past. Even with constant mortality rates, the number of people over 60 years of age is projected to reach 49.6 million by 2030.

[22] Iqbal and Kiendrebeogo, 2014.

However, by 2050, declining mortality rates will start to have a significant impact on ageing, particularly for persons aged 75 years and above (see Annex 6).

The impact of mortality decline depends on whether it occurs mainly at young or old age. During the first stages of the demographic transition, mortality decline usually occurs at young ages, particularly at infant and child ages. Declining mortality of infants and children often makes the population younger by increasing the number of young persons living in the population. Later in the demographic transition, mortality rates at young ages are already low, and declining mortality of adults and persons of older age begin to contribute to population ageing as more adults and older persons are living, in relative as well as absolute terms.

(a) Life expectancy at birth

From 1970 to 2015, the Arab region has witnessed a significant decrease in mortality as measured by life expectancy at birth, which has increased by the equivalent of 10 hours per day, on average, for men and women together (or 0.4 years annually). This upward trend is projected to continue (see Annex 7). The regional average life expectancy at birth is projected to improve by almost six years, from 71 years in 2015 up to 76.4 years in 2050 for both men and women. Historically speaking, in 1970, average life expectancy at birth for the Arab region was estimated at 52.5 years as opposed to the global average of 56.8 years, while as much as 14 countries, nearly half of the region, had a low life expectancy between 45-55 years. From 1980 onwards, this situation had dramatically improved and the longevity profile of the Arab region has actually been reversed, where in 2015, 16 countries have reached around or above 70 years of life expectancy, and only 6 between 62 and 70 years. However, there is still concern about Somalia, where life expectancy remains very low at less than 60 years as estimated in 2015.

Table 6: Life expectancy at birth in the Arab region (1970-2050)

Year	Regional Average	World Average
1970	52.2	56.8
1980	58.5	61.2
1990	64.2	64.1
2000	67.6	66.4
2015	71.0	71.4
2030	73.7	74.3
2050	76.4	77.3

Source: ESCWA calculations based on United Nations, World Population Prospects (2017). Medium Variant.

Economic, health and political factors including poverty, armed conflicts, humanitarian crises, and the re-emergence of certain infectious diseases such as malaria, tuberculosis and cholera have all contributed to low life expectancy in low-income as well as recently conflict-stricken countries, including Comoros, Djibouti, Iraq, Mauritania, Somalia, Sudan, Syrian Arab Republic and Yemen.

In particular, armed conflicts and humanitarian crises in Iraq, Syrian Arab Republic and Yemen are expected to disproportionately impact male life expectancy. In the Syrian Arab Republic, for example, the difference or gender gap between male and female life expectancy did not exceed 4 years from 1970 until 2000. However, the gap between men and women from 2010 onwards is expected to widen further, amounting to more than an 8-year difference by 2020. According to projections, the gap will then narrow to around 4 years from 2030 until 2050.

Similarly, in 1970, Iraq had an extremely narrow gap of less than 1 year between the life expectancy of men and women, with the former living longer. However, from 1980 until 1990, this situation was inverted, as the gap widened to 7 years, with women living longer. Estimates and projections indicate that women will continue to live longer until 2050, but the gap will narrow to five years. Such projections, however, remain subject to uncertainty and changes in contexts of armed conflicts and humanitarian settings (see Annex 8).

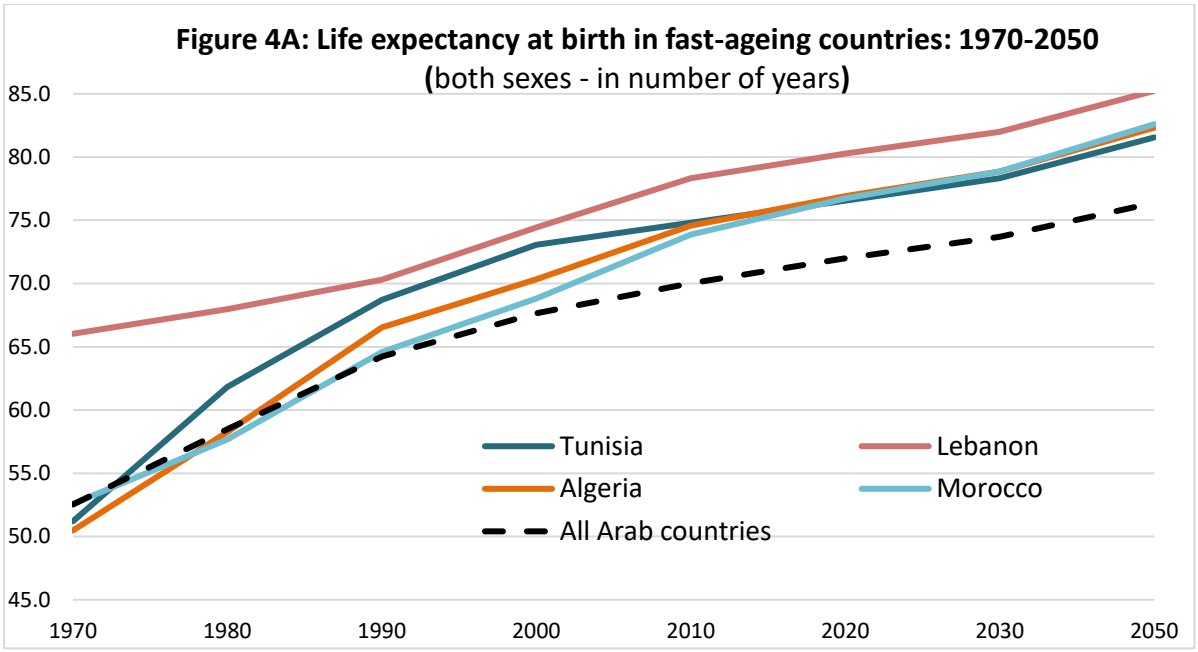
From a comparative perspective of countries in the Arab region vis a vis life expectancy at birth, projections expect significant discrepancies to continue. However, the gap between the highest and the lowest life expectancy is projected to shrink significantly, from a difference of 27.3 years in 1970 (the gap between life expectancy in Somalia, 40.9 years, and in Qatar, 68.2 years) and of 23.5 years in 2015 (the gap between Somalia, 55.9 years, and Lebanon, 79.4 years), to over 18 years in 2050 (the gap between Somalia, 66.8 years, and Lebanon, 85.2 years) (Annex 7).

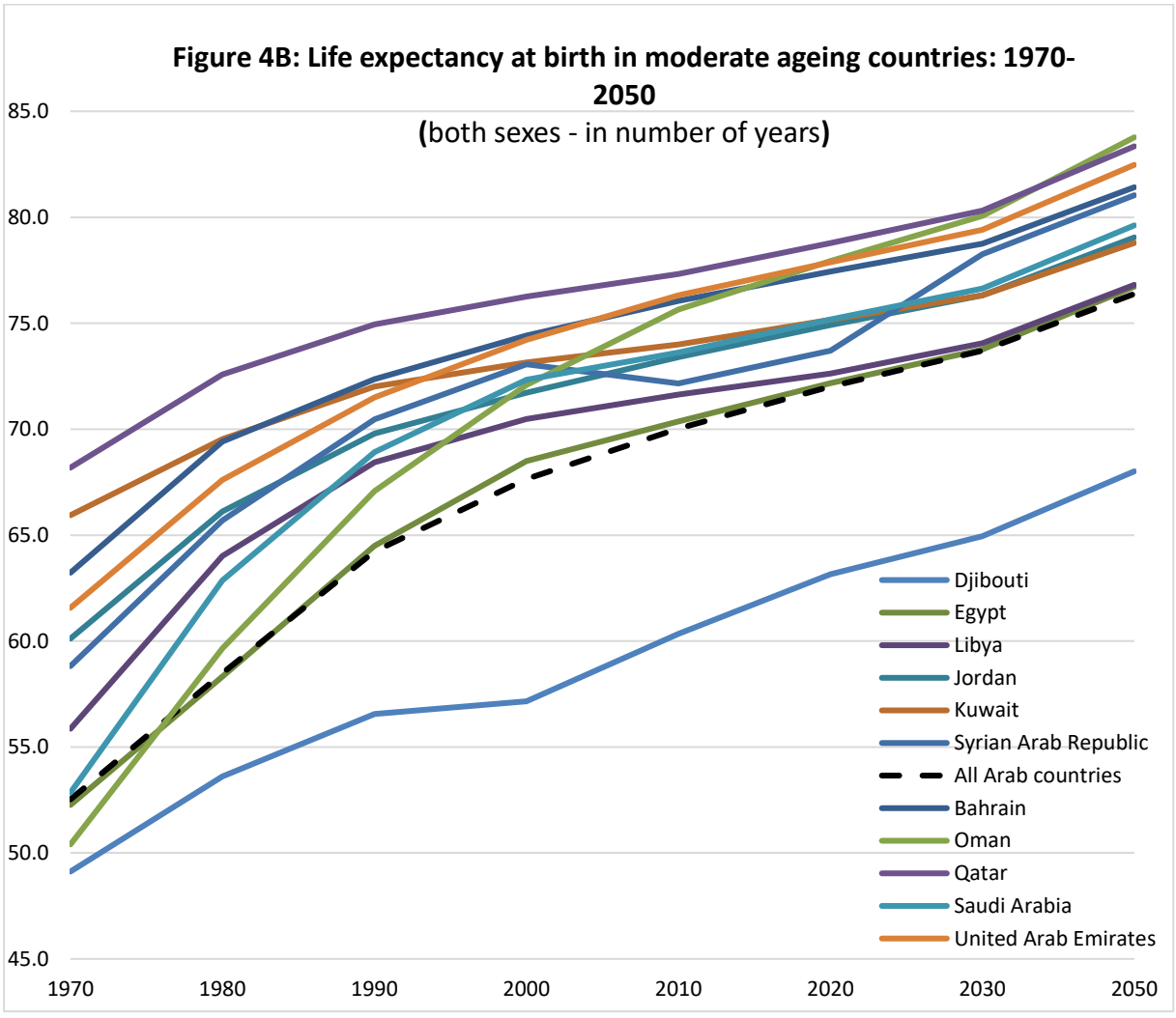
While in 1970 life expectancy at birth was below 60 years in 16 countries of the region, by 2015, the regional average exceeded 70 years.

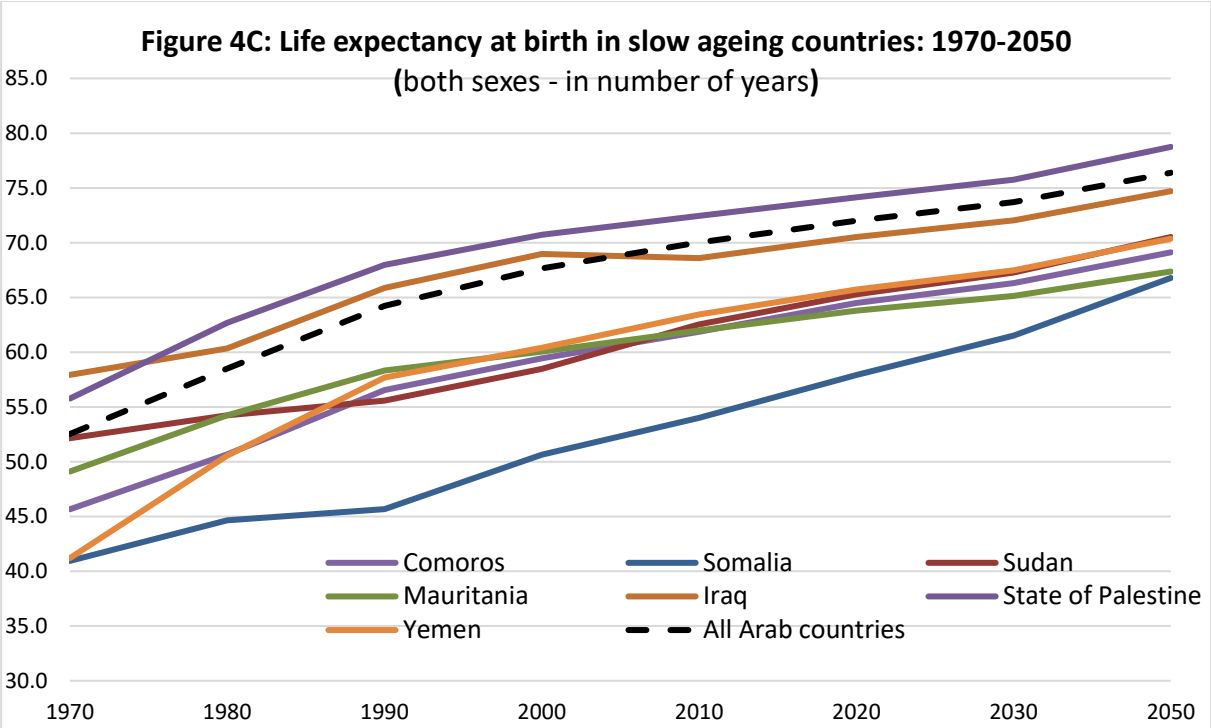
At a regional level, women are expected to generally have longer life expectancy than men, which has increased from a difference of 2.5 years in 1970 to an expected 3.9 years in 2020 and 2030, and is projected to reach 4.1 years by 2050 (Annex 8). However, at the country level, projections indicate that in some countries, this gender gap between older women and men will close instead of expanding throughout the decades leading up to 2050. From 2010 to 2050, Algeria, Lebanon, Oman, Qatar and Tunisia are all projected to have a steady decrease in the gender gap in life expectancy at birth. The Syrian Arab Republic and UAE will begin the same steady decrease, but starting from 2020. Bahrain, Libya, and Saudi Arabia will begin closing the gap in 2030, and the gap is also expected to close between 2040 and 2050 in Jordan and Palestine.

Consequently, difference in life expectancy by sex translates into a higher number and proportion of older persons who are women than those who are men, both at present and in the future. As mentioned previously, since 2010, the greatest gender gap in the Arab region, with respect to life expectancy at birth, has been in the Syrian Arab Republic (8.6

years), and projections indicate that by 2020 the gap will further increase to 8.9 years. However, changes in the ongoing conflict could influence these differences.







Source: United Nations World Population Prospects (2017), Medium Variant.

Note: Life expectancy at birth for all countries in the Arab region is computed using population weights.

(b) Life expectancy at age 60

In addition to life expectancy at birth, which is believed to be closely related to infant mortality and does not provide all information about survival prospects of older persons, another relevant indicator, *life expectancy at age 60,* is used in the context of the ageing phenomenon, since it serves as a better estimate of survival within the adult life course, particularly for low and middle-income countries.[23] Life expectancy at 60 is defined as the average number of years that a person at that age can be expected to live, assuming that age-specific mortality remains constant.

Life expectancy at 60 will increase in the Arab region from 18.9 years in 2015 to 22 years by 2050, but remains lower than the global and less developed regions average.

Within the Arab region, between 1970 and 2015, life expectancy at 60 grew substantially from 15.5 to 18.9 years, rising by 3.4 years or almost 28 days annually (see Annex 9). In the future, life expectancy at 60 is projected to reach 20.2 years by 2030 and 22 years by 2050. However, a comparative analysis reveals that the Arab region falls behind both global life expectancy at 60 (20.5 years in 2015, 21.7 years in 2030 and 23.1 years by 2050) and also the life

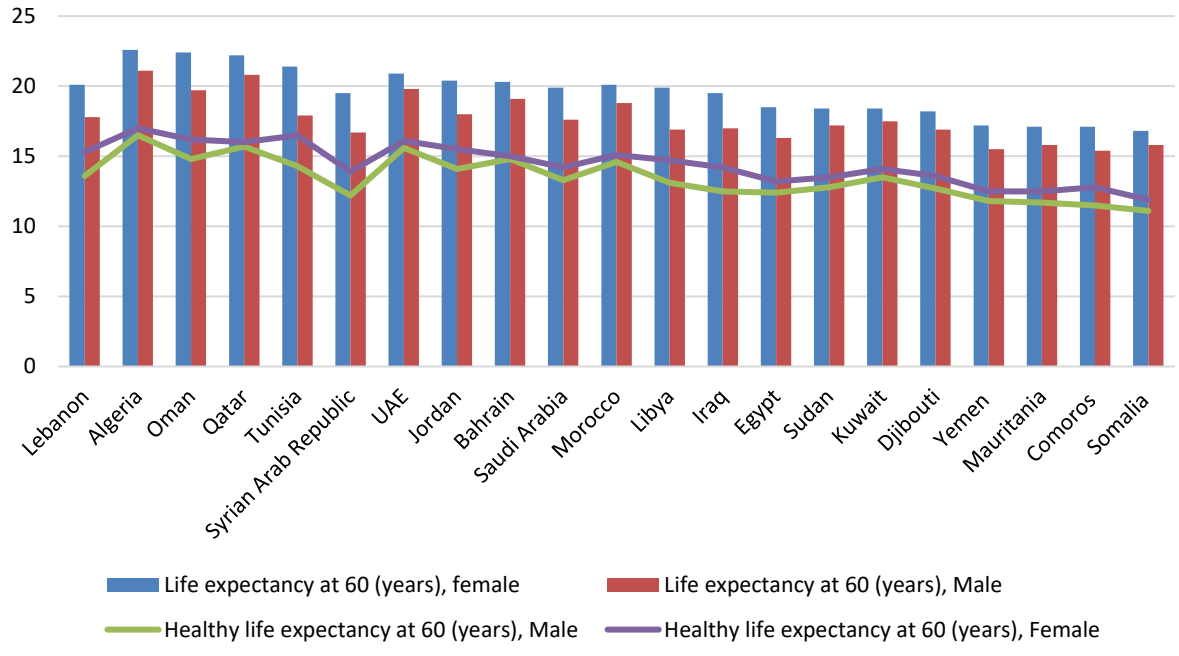
[23]HelpAge International, 2015.

expectancy at 60 for less developed regions (19.2 years in 2015, 20.6 years in 2030 and 22.2 years in 2050).

This anticipated gain in life expectancy will be accompanied by a gender-based life expectancy gap in all countries of the Arab region. Women are expected to live considerably longer than men. Figure 5 shows the differences between countries in the region, and it also shows the difference in life expectancy and healthy life expectancy for men and women. Healthy life expectancy takes health considerations into account, since gains in life expectancy will also bring a shift in the patterns of diseases and causes of death.

Based on data from the World Health Organization, in 2015, while the highest average life expectancy for males and females at age 60 was almost 22 years (Algeria), the highest average healthy life expectancy for males and females was only around 16 years (UAE, Qatar and Algeria). Furthermore, while the average life expectancy at age 60 for females in the region was around 20 years, the average healthy life expectancy at 60 for females was barely 14 years.

Figure 5: Life expectancy and healthy life expectancy at age 60 (years), by sex



Source: WHO, 2015.

Note: UN World Population Prospects data does not maintain data for healthy life expectancy. Therefore, for consistency in the comparison in this chart, WHO data is used for both healthy life expectancy and life expectancy.

(c) Ageing and epidemiological transition

The demographic transition of the Arab region is also associated with a rapid epidemiological transition toward noncommunicable diseases (NCDs),[24] driven partly by population ageing. Thus, the burden of diseases related to NCDs has grown rapidly in the region.

Primary causes of death for older persons in the Arab region have shifted to cardiovascular diseases and cancer.

According to 2008 data on major causes of death of older persons 60 years and above in the Arab region, it is revealed that "*more than 1.2 million people in the Arab world died from non-communicable diseases, accounting for nearly 60 per cent of all deaths in the region, with wide variations between countries (ranging from 27 per cent in Somalia to about 84 per cent in Oman and Lebanon)*".[25]

The share of deaths of older persons from NCDs is very significant, ranging from 90.4 per cent in Bahrain to 72.8 per cent in Mauritania. In fact, the primary causes of death for older persons have shifted to cardiovascular diseases and cancer, with shares of death ranging from 34.4 per cent in Bahrain to 60 per cent in Oman for cardiovascular diseases and from 5.7 per cent in Sudan to 20.4 per cent in Qatar for cancer (Table 7).

[24]Noncommunicable diseases (NCDs), also known as chronic diseases, do not result from an (acute) infectious process and hence are "not communicable". The main types of NCDs are cardiovascular diseases (like heart attacks and stroke), cancers, chronic respiratory diseases (such as chronic obstructive pulmonary disease and asthma) and diabetes. See, for example, www.who.int/mediacentre/factsheets/fs355/en/.

[25] ESCWA, 2015.

Table 7: Distribution of Major Causes of Death of Older Persons (60+)

Country	Communicable, maternal, perinatal and nutritional conditions	Noncommunicable diseases						Injuries
		Total	Malignant neoplasms	Diabetes mellitus	Cardiovascular diseases	Respiratory diseases	Digestive diseases	
Algeria	21.0	75.2	9.4	5.2	40.0	8.5	4.2	3.8
Bahrain	8.4	90.4	13.1	17.7	34.4	8.3	3.8	1.2
Comoros	21.3	75.7	7.3	8.6	39.3	8.9	3.5	3.0
Djibouti	12.6	84.9	7.4	2.4	53.0	5.4	8.0	2.5
Egypt	5.0	93.8	9.4	3.2	52.6	3.9	14.6	1.3
Iraq	9.5	80.6	8.7	2.0	52.8	5.1	5.3	9.9
Jordan	5.9	91.1	10.4	10.4	55.5	4.3	3.9	2.9
Kuwait	9.0	88.0	14.9	5.8	56.8	2.4	3.5	3.0
Lebanon	4.0	91.0	16.4	1.9	54.9	5.6	5.2	5.0
Libya	5.8	90.1	11.4	2.2	58.3	5.0	5.9	4.1
Mauritania	23.9	72.8	8.0	5.8	38.3	8.6	4.6	3.3
Morocco	4.9	92.0	8.8	2.2	58.1	6.3	7.6	3.1
Oman	1.0	97.4	11.0	9.9	60.0	4.3	4.3	1.6
Qatar	5.1	91.5	20.4	14.9	35.5	6.7	3.7	3.4
Saudi Arabia	8.6	89.3	9.0	9.2	55.5	4.1	4.1	2.2
Somalia	14.9	80.1	7.2	3.5	47.7	6.3	6.7	4.9
Sudan	10.0	86.8	5.7	3.8	53.4	7.0	7.2	3.1
Syrian Arab Republic	5.0	91.9	6.7	3.2	58.4	6.0	3.6	3.1
Tunisia	15.3	81.9	13.3	1.7	50.2	5.1	5.0	2.7
United Arab Emirates	14.1	82.6	11.9	6.1	50.1	4.0	2.8	3.3
Yemen	8.1	88.4	8.5	2.3	55.3	5.9	7.6	3.5
All Arab Countries	**9.0**	**87.8**	**8.9**	**3.7**	**52.3**	**5.6**	**8.3**	**3.2**

Source: ESCWA calculations from the World Health Organization, Department of Measurement and Health Information, April 2011, and from Mortality and Burden of Disease Estimates for 2008.

Similarly, statistics based on the Pan Arab Project for Family Health (PAPFAM) surveys in 9 countries in the Arab region also show that in 2008 the percentage of older persons suffering from at least one chronic disease ranged between 13.1 per cent in Djibouti and 63.8 per cent in Lebanon, with most countries having incidence rates above 45 per cent.[26]

Furthermore, these data show serious health challenges since *"the cumulative effect of chronic disease throughout the life course and the age-related decline in physiological reserves in old age contribute to the onset of frailty, disability and dependency in the ageing population."*[27]

Summary of key points:

- While in 1970, life expectancy at birth was below 60 years of age in 16 countries in the Arab region, in 2015, average life expectancy for the region exceeded 70 years.
- By 2050, the Arab region is expected to reach an averge life expectancy of 76.4 years.

[26] Kronfol, 2013.

[27] Ibid.

- Women are projected to have a higher life expectancy than men, which has increased from a difference of 2.5 years in 1970 to projected 3.9 years in 2020 and 2030, and is expected to reach 4.1 years by 2050.
- The difference in life expectancy by sex results in a higher number of older persons who are women than men, now and in the future.
- In the context of ageing, life expectancy at age 60 is an important indicator to measure and monitor the survival prospects during the adult life course. In the Arab region, life expectancy at age 60 increased by 3.4 years between 1970 and 2015 from 15.5 to 18.9 years. In the future, it is expected to reach 20 years in 2030 and 22 years in 2050.
- Population ageing is associated with a rapid epidemiological transition toward NCDs, including cardiovascular diseases and cancer.

A.3. Migration

Lastly, in addition to fertility and mortality (decline), migration can significantly impact population dynamics and ageing. However, in the context of the Arab region, the impact of migration as a driver of ageing is minimal. Migration's effect on population ageing largely depends on whether it is temporary or permanent, and it also depends on the age of migrants. For example, high numbers of working-age migrants can contribute to a slowing down of population decline and to the reduction of population ageing.

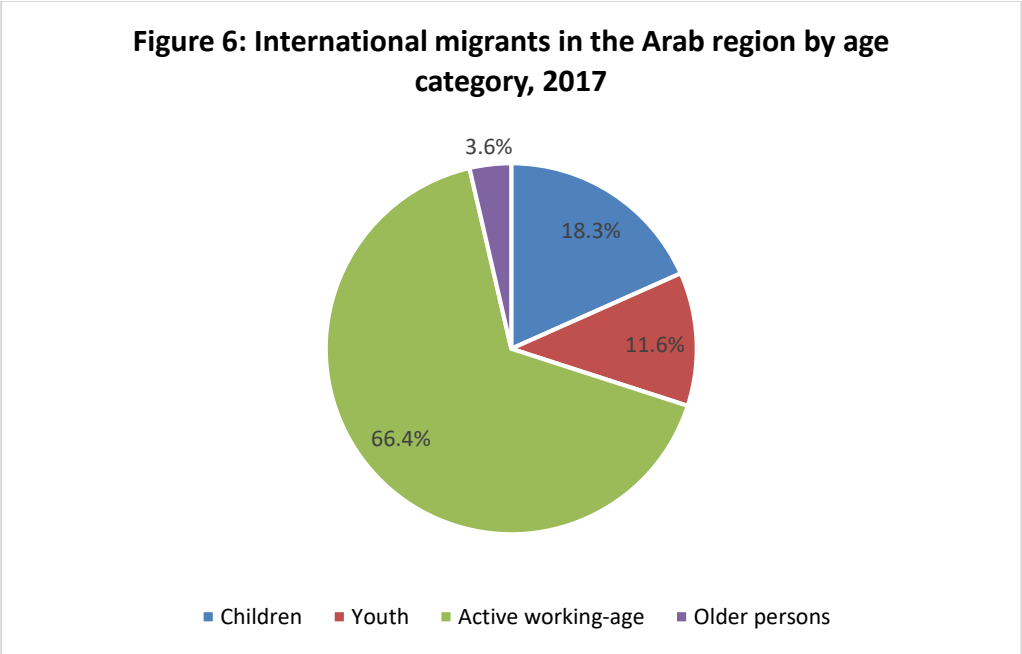
When migration is temporary, return migration of older migrants following retirement may occur, meaning that most migrants continually represent working-age individuals. In this case, migration may delay ageing, but not prevent it or contribute to it. However, the degree to which the ageing of migrants delays population ageing depends on the rate of growth of net migration over time.

The size of the migrant population in the Arab region has increased by more than 150 per cent, from under 15 million in 1990 to 38 million by 2017. There has been an increase in the numbers of international migrants in 16 out of the 22 countries for the same time period.[28] The number of migrants more than doubled in eleven countries and more than quadrupled in four of them, Bahrain, Oman, Qatar and UAE (see annex 10).[29]

Latest data for 2017 show that only 3.6 per cent of the migrant population in the Arab region was 60 years old or older, while 66.4 per cent of the migrant population was active working-age (Figure 6). The proportion of older persons among the migrant population in the Arab region has slightly varied, from a low of 2.9 per cent in 2010 to a high of 3.7 per cent from 1995 to 2000 (Table 8).

[28] DESA, 2017.

[29] ESCWA, 2017 Situation Report on International Migration: Migration in the Arab Region and the 2030 Agenda for Sustainable Development.



Source: ESCWA calculations based on United Nations, Department of Economic and Social Affairs, Population Division (2017). Trends in International Migrant Stock: The 2017 Revision (United Nations database, POP/DB/MIG/Stock/Rev.2017).

Table 8: International migrant population by age group, 1990-2017

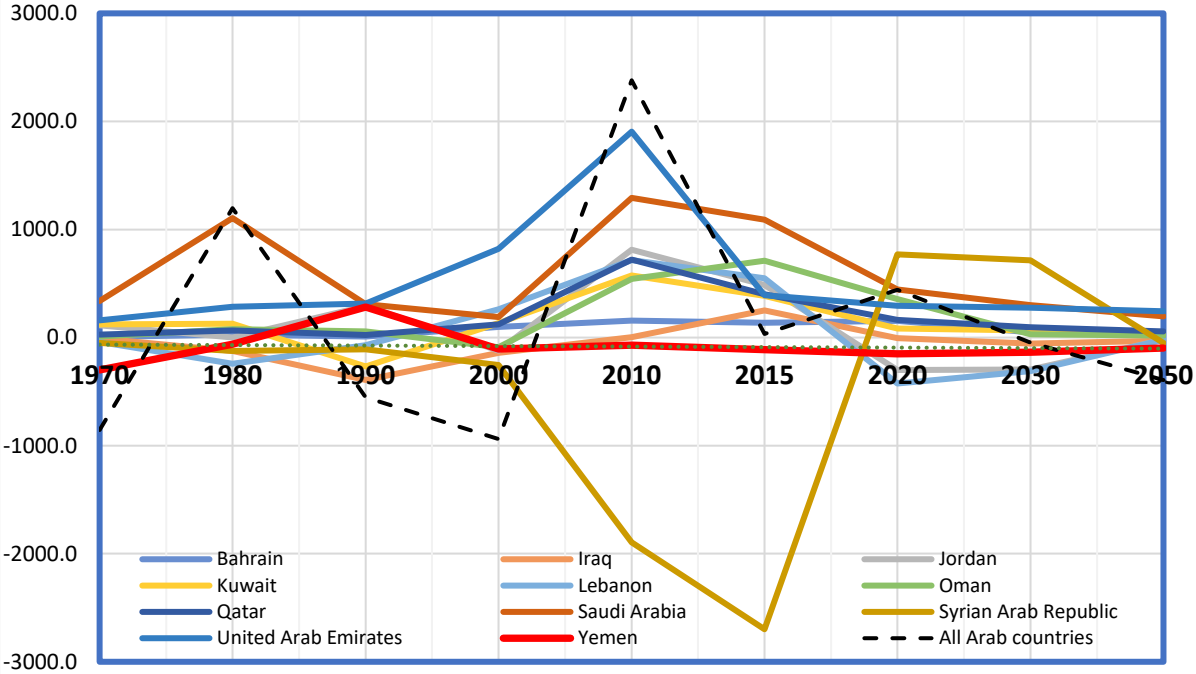
Year	Children (0-14)	Youth (15-24)	Active Working Age (25-59)	Older Persons (60+)
1990	26.7%	14.9%	54.9%	3.5%
1995	24.6%	14.4%	57.3%	3.7%
2000	22.9%	13.9%	59.5%	3.7%
2005	21.5%	14.1%	60.9%	3.5%
2010	18.8%	13.2%	65.1%	2.9%
2015	18.5%	11.6%	66.6%	3.4%
2017	18.3%	11.6%	66.4%	3.6%

Source: ESCWA calculations based on United Nations, Department of Economic and Social Affairs, Population Division (2017). Trends in International Migrant Stock: The 2017 Revision (United Nations database, POP/DB/MIG/Stock/Rev.2017).

Different countries within the Arab region have significantly different migration patterns. The GCC is one of the main destination sub-regions for international migrants in the world. Nonetheless, GCC countries' immigration policies only allow for temporary migration, meaning that older migrants are replaced by new, young ones and are not

permitted to naturalize or continue to live in the country at old age. As a result, migration is unlikely to contribute significantly to ageing in these countries; rather it may postpone ageing given the decrease of the ratio of older persons to the total population (Figure 7A).

Figure 7A: Net international migration rates in GCC and Mashreq countries: 1970 - 2050



Source: United Nations Department of Economic and Social Affairs, DESA (2015). International Migration Database. Trends in international migrant stock, the 2015 revision.

In contrast, countries in the Mashreq[30] have significant emigration due to ongoing armed conflicts. For example, by 2017, more than 5.3 million Syrian refugees had fled to neighbouring countries.[31] In such situations, evidence suggests that these forced movements will have an impact on population age structure. However, there is still an urgent need for more data to assess the demographic as well as the socio-economic consequences of conflict on older persons.

[30] The Mashreq sub-region is comprised of: Egypt, Iraq, Jordan, Lebanon, Palestine and the Syrian Arab Republic.
[31] UNHCR, 2017a.

Increased migration in the Arab region has different forms and patterns, and does not bear significant impact on ageing.

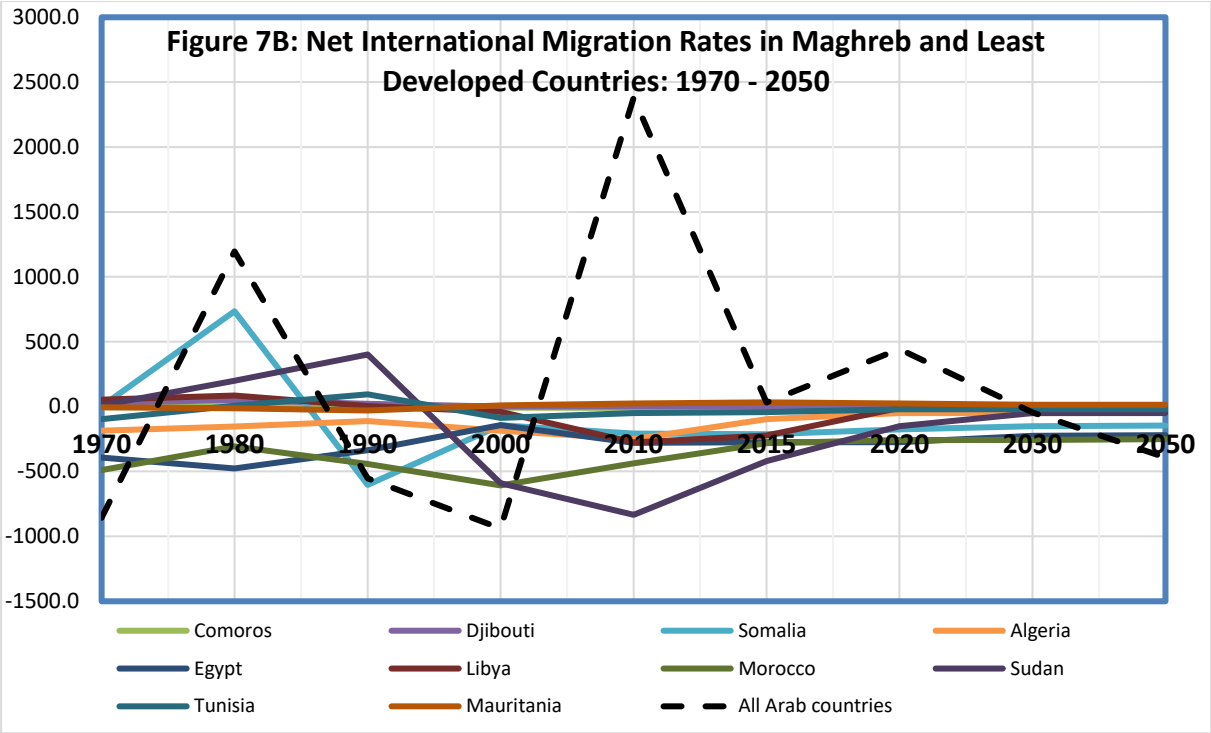
In other countries of the Mashreq, the impact of migration on population growth may be temporary. During the last decade, Lebanon and Jordan have had high positive net migration rates, including due to forced migration from armed conflicts in neighbouring countries. In 2017, it was estimated that each country had hosted more refugees per capita than any refugee-hosting country in the world, receiving around 692,240 and 1 million refugees, respectively.[32] Iraq also experienced positive net migration rates from 2010 to 2015. However, Lebanon and Jordan may later have negative net migration, due to the often-temporary nature of displacement and forced migration.

In contrast, the Syrian Arab Republic, which had experienced the highest negative net migration rates since 2010, is expected to experience high return migration in the future. Iraq has also had a similar pattern (net negative migration rates from the year 1970 until the year 2010 and net positive migration rates from 2010 to 2015). Human mobility in Palestine, however, seems to be characterized by a regular negative and relatively slight net migration.

Since 2000, all Maghreb countries[33] had negative net migration rates (Figure 7B). This pattern is projected to prevail in the future, but its scale is anticipated to decrease. This is also the case in Egypt, Somalia, the Sudan and, to a lesser extent, Comoros. On the other hand, Djibouti and Mauritania have had small numbers of net migration rates and are likely to witness continuous low levels of net migration into 2050 (see Annex 11).

[32] UNHCR, 2017b. These figures do not include Palestinian refugees under the mandate of UNRWA. By including Palestinian refugees, Jordan and Lebanon host 2.8 million and 1.5 million refugees, respectively.

[33] The Maghreb sub-region includes: Algeria, Libya, Morocco, and Tunisia.



Source: ESCWA Calculations from the United Nations, World Population Prospects (2017), Medium Variant.

Therefore, in light of the above, migration in the context of the Arab region has different patterns and trends and does not play a large role as a determinant of population ageing in the region as a whole.

Summary of key points:

- An important component of demographic dynamics in the Arab region is migration, which played a significant role in the demographic growth in many countries, particularly the GCC countries.
- As return migration often occurs at advanced ages and the age structure of migrants is usually significantly younger than the national population, international migration is not believed to be a major source of ageing in these countries. Rather, it is a factor that may postpone the ageing process.

B. Changing Population Age Structure

Population determinants in the Arab region have led some countries to undergo an important age structure transition over the last three decades, which is projected to continue over the course of the next thirty years. This ensuing trend is represented by a decrease in the demographic weight of children along with an increase in the demographic weight of older persons and leads to an ageing population in the region.

Whilst individual countries in the region are at different stages of the ageing process, all of them, nevertheless, are projected to age. Socioeconomic fluctuations, changes in family structures and living patterns, as well as availability of healthcare and social protection, are basic elements that must be considered in short- and long-term planning in order to meet the ageing population's needs.

The concept of age structure transition is measured by the population age distribution according to four broad age groups:

a) children and young adolescents (aged 0-14 years);
b) youth (aged 15-24 years);
c) active working-age persons (aged 25-59 years) and
d) older persons (aged 60 years and above).

The following section will discuss various aspects of the demographic transition and ageing in the Arab region.

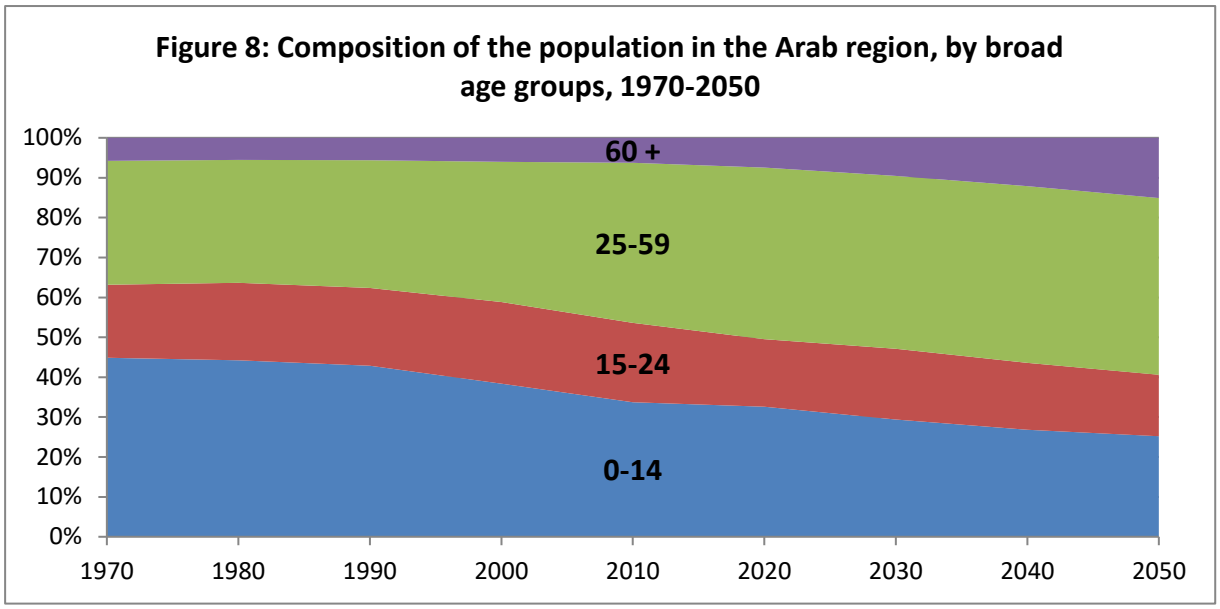
B.1. Proportional age distribution

The proportion of the age 0-14 group of children and young adolescents has been decreasing in all countries in the Arab region since 1970 and will continue to do so by 2050 (Table 9 and Figure 8). This decline was followed by a regression of the demographic weight of the youth group, aged 15-24 years, since 2000. In contrast, the proportions of the active working-age population, 25-59 years, and of older persons, aged 60 and above, are growing in all countries (table 9).

Table 9: Proportion of the population in the Arab region by broad age groups (in %), 1970 - 2050

Age Group	1970	1980	1990	2000	2010	2020	2030	2040	2050
0-14	44.9	44.3	42.9	38.4	33.7	32.6	29.4	26.8	25.2
15-24	18.3	19.4	19.5	20.5	19.8	17	17.7	16.8	15.4
25-59	31.1	30.8	32	35.2	40.2	43	43.4	44.3	44.3
60 +	5.7	5.5	5.6	6	6.2	7.4	9.5	12.1	15.1

Source: ESCWA calculations from the United Nations World Population Prospects (2017), medium variant.



Source: ESCWA calculations from the United Nations World Population Prospects (2017), medium Variant.

Table 10 shows that these age structural changes vary from one country to another. From 1970 to 2015, in four countries where fertility has declined most rapidly (Algeria, Lebanon, Tunisia and Morocco), the rise of the proportion of persons aged 60 and above has been of 4 percentage points or more, while the share of children and adolescents aged less than 15 years has declined significantly by between 18 to 22 percentage points. In Algeria, the rise of the older person population was of 3.2 percentage points in the same time period. Libya and Egypt have experienced a similar trend, but not as significantly marked as the four aforementioned countries.

Table 10: Population share by country and age group (%)

	1970				2015				2030				2050			
Country	0-14	15-24	25-59	60+	0-14	15-24	25-59	60+	0-14	15-24	25-59	60+	0-14	15-24	25-59	60+
Algeria	46.8	18.5	29	5.7	28.7	16.6	45.8	8.9	24.7	17.2	44.8	13.3	20	12.5	44.5	23
Bahrain	44.8	17.9	33.2	4.1	20.8	13.2	61.9	4.1	16.7	12.2	61.9	9.2	13.5	10.6	58.5	17.4
Comoros	44.6	17.5	32.8	5.1	40.1	19.9	35.3	4.7	35.6	19.7	38.6	6.1	30.1	17.8	43	9.1
Djibouti	45.4	18.8	31.8	4	32	20.5	41.3	6.2	26.5	17	47.4	9.1	20.7	14.8	48.9	15.6
Egypt	42	18.7	32.7	6.6	33.1	17.4	41.8	7.7	29.5	18.2	42.4	9.9	25.4	15.4	43.8	15.4
Iraq	44.6	18	30.9	6.5	40.7	19.7	34.6	5	37.1	19.4	37.5	6	32.4	18.1	40.4	9.1
Jordan	46	18.1	31	4.9	36	19.2	39.3	5.5	29.8	18.6	42.9	8.7	23.9	15.5	45.3	15.3
Kuwait	44	18.2	34.8	3	20.9	11.3	63.7	4.1	19.1	13.3	55.5	12.1	17.1	11.4	51	20.5
Lebanon	41.9	18.4	32.2	7.5	24	19.5	45.1	11.5	18.9	11.2	50.9	19	13.8	11.5	43.5	31.2
Libya	46.2	16.6	32.4	4.8	28.6	17.3	47.6	6.5	22.5	16.5	50	11	18.2	12.3	46.7	22.8
Mauritania	46	18.3	31.4	4.3	40.3	19.4	35.4	4.9	36.5	19.3	38	6.2	31.7	18	41.5	8.8
Morocco	47.6	16.7	30.4	5.3	27.7	17.4	44.9	10	23.4	15.6	45.3	15.7	18.6	12.6	44.8	24
Oman	46.3	18.6	29.9	5.2	22.2	14.7	59.3	3.8	18.9	13.8	60.2	7.1	14.8	10.4	54.5	20.3
Qatar	36.1	20.8	39.9	3.2	13.8	14.6	69.2	2.4	13.2	11.6	66.6	8.6	11.4	9.6	60.8	18.2
Saudi Arab	44.2	18.4	32	5.4	26	15.5	53.3	5.2	21.9	13.9	53.2	11	16.8	11.7	48.6	22.9
Somalia	43.3	18.7	32.7	5.3	46.7	19.9	29.1	4.3	44.2	20	31.3	4.5	38.1	19.9	36.7	5.3
State of Pal	49.4	18.5	27.8	4.3	40.2	21.7	33.6	4.5	35.5	19.1	39.1	6.3	28.5	17.3	43.7	10.5
Sudan	46.3	18.6	30.3	4.8	41.5	20.1	33	5.4	36.7	19.7	37.1	6.5	31.5	18.3	41.9	8.3
Syrian Aral	48.1	18.8	28.1	5	38.1	19.8	35.7	6.4	28.1	19.2	43.4	9.3	21.9	14.9	47.1	16.1
Tunisia	45.5	17.6	31.2	5.7	23.7	15.5	49.1	11.7	21.4	14.5	46.4	17.7	17.8	11.6	44.1	26.5
United Aral	35.1	20.2	42.4	2.3	13.8	10.2	74	2	12.1	11.7	68.1	8.1	12	9.1	60.2	18.7
Yemen	44.7	19.4	31	4.9	40.6	22	32.9	4.5	34.1	20.1	40.6	5.2	25.6	17.2	47.4	9.8

Source: ESCWA calculations from the United Nations World Population Prospects (2017), Medium Variant.

Note: See Annex 1 and 2 for additional years.

In all GCC countries, the proportions of older persons slightly declined from 1970 to 2015 (except in Kuwait, which had a small increase in older persons' proportion by 1.1 percentage points, and in Bahrain, where the proportion of older persons stayed the same at 4.1 per cent). For all GCC countries, the proportion of children declined significantly, by between 18 and 24 percentage points. At the same time, the proportion of working-age persons has increased significantly, from over 18 percentage points in Saudi Arabia to over 25 percentage points in Oman. However, the significant increase in the number of working-age persons is mainly due to high positive net migration rates to these countries combined with recent fertility decline.

By 2030, the proportion of older persons in the total population is projected to exceed 15 per cent in three countries: Lebanon (19.0 per cent), Tunisia (17.7 per cent) and Morocco (15.7 per cent). By 2050, these three countries are projected to have more older persons aged 60 years and above than children and young adolescents aged less than 15 years: in Lebanon the share of older persons and the share of children will be 31.2 per cent and

13.8 per cent, respectively, in Tunisia it will be 26.5 per cent and 17.8 per cent, and in Morocco 24.0 per cent and 18.6 per cent. Also, many other countries in the Arab region will have large cohorts of older persons by 2050: Algeria, Kuwait, Libya, Oman and Saudi Arabia's older persons are expected to represent more than one fifth of each country's total population. Many other countries, namely Bahrain, Djibouti, Egypt, Jordan, Qatar, Syrian Arab Republic and UAE will have older persons representing over 15% of each country's total population.

Conversely, in very youthful countries where fertility transition is not yet at an advanced stage, the older persons age group is expected to grow but will represent less than 11 per cent of the total population in 2050, namely in Comoros, Iraq, Mauritania, Somalia, Palestine, Sudan and Yemen. The shape of the age pyramid in most of these countries has not undergone a major transformation since 1970, and is not projected to change by 2030 or 2050 (see Annex 12).

In absolute terms, the number of persons in each age group has increased and will continue to do so in the future (Table 11). Even in countries where the proportion of older persons in the total population will not dramatically increase over the next few decades, the number of older persons will still increase. Consider, for instance, Sudan, where the number of older persons will be increasing from 2.1 million in 2015 to 3.5 million in 2030 and will reach 6.7 million by 2050. Iraq, too, exhibits a similar pattern of acceleration in the number of older persons expected to rise from 1.8 million in 2015 to 3.2 million in 2030 and reach 7.4 million by 2050 (see Annex 13). Such noticeable expansion in the sheer numbers of older persons requires unprecedented preparedness at all levels.

While child and youth age groups have decreased as shares of the total population, the population of children younger than 15 years of age has increased from 55.4 million in 1970 to 132.6 million in 2015, with an average annual growth rate of 1.96 per cent; and the population of youth has increased from about 22.6 million to 71.6 million, with an average annual growth rate of 0.72 per cent. In the future, the child and youth age groups are projected to increase less rapidly: by 2050, the population of children is likely to amount to 170 million and the youth population is expected to grow to 104 million (see Annex 13).

The size of the active working-age population grew from 38.4 million in 1970 to 167.6 million in 2015 and is projected to increase to a high of about 300 million in 2050. The growth rate of this age group is projected to slow from 3.3 per cent during 1970-2015 to 1.7 per cent during 2015-2050.

By contrast, the size of the population of older persons is projected to continue to increase with an unprecedented growth rate of 3 per cent during 1970-2015 and 3.8 per cent from 2015 to 2050 (see Annex 14). As a result, the number of older persons in the Arab region will rise to more than 102 million older persons by 2050.

Overall, in the past as well as in the future, the child age group shows the lowest growth rate, followed by the youth age group, while the age group of older persons displays the

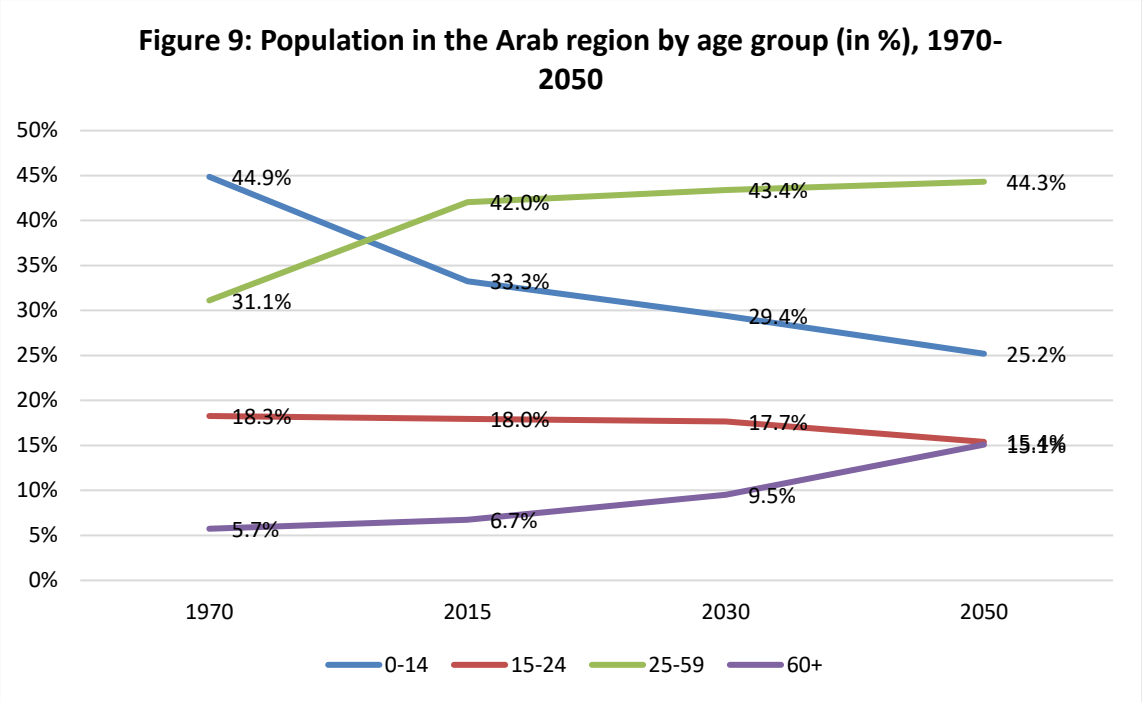
highest growth rate, followed by that of the working-age group. These trends imply that even in medium and slow-ageing countries, while the proportion of older persons to the total population may not increase dramatically, the number of older persons will still increase.

Table 11: Population in the Arab region (in thousands) by broad age groups, 1970-2050

Year	0-14	15-24	25-59	60+	Total
1970	55,413	22,575	38,440	7,095	123,523
2015	132,562	71,598	167,560	26,826	398,546
2030	153,179	92,023	225,980	49,594	520,776
2050	170,404	104,144	299,715	102,087	676,350

Source: ESCWA calculations from the United Nations World Population Prospects (2017), Medium Variant.

Note: See Annex 13 for country-level data.



Source: ESCWA calculations from the United Nations World Population Prospects (2017), medium Variant.

From 2015 to 2050, countries that will likely experience the highest growth in the number of older persons, in order of growth rate, are: UAE, Qatar, Oman, Kuwait, Bahrain and

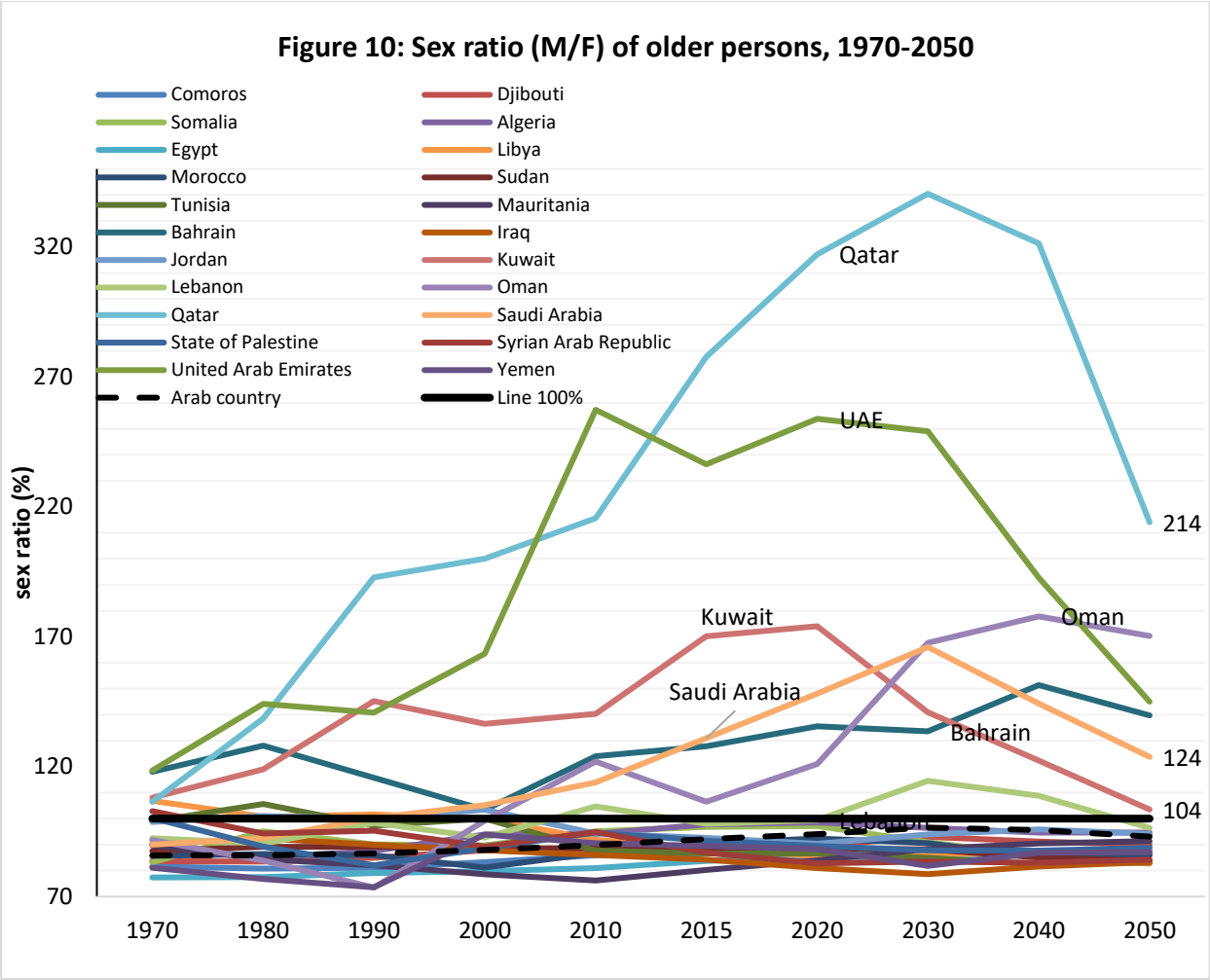
Saudi Arabia, with rates ranging from 5.2 to 7.5 per cent (see Annex 14 for individual country data). By contrast, the population of older persons in countries that experienced early decline in fertility rates, including Lebanon, Tunisia and Morocco, are expected to grow more slowly, with projected annual growth rates ranging from 2.6 to 3.3 per cent. In Somalia and Sudan, the population of older persons is also projected to grow slowly, at a rate of 3.3 per cent, mainly due to prevailing high mortality levels.

Migration has also had some influence on the growth of the older population in some countries from 1970 to 2015. The older population multiplied by about 36 in the UAE and by almost 19 in Qatar. The active working-age population in these countries has also experienced significant growth multiplying by slightly more than 67 and 39, respectively, during the same period. Hence, the growth of the working-age population relative to the growth of the older population explains why, in relative terms, their populations were not ageing during this period.

B.2. Age and sex distribution of the older population

In the Arab region, women are living longer than men, and this trend is projected to continue into the future. However, the ratio of men to women will vary between countries in the region.

Women outliving men means that there are often more females than males in a country's population of older persons. Available data indicate a female predominance in the older population in 16 out of 22 countries in the Arab region in 2015 (see Figure 10 and Annex 15). The GCC countries are a notable exception, where male older persons outnumber females. In fact, in 2015, the ratio of men to women at older ages ranged from 80 men per 100 women in Mauritania to 278 men per 100 women in Qatar. In 2030, this ratio is expected to range from 79 in Iraq to 340 in Qatar.



Source: ESCWA calculations from the United Nations World Population Prospects (2017), Medium Variant

B.3. The age distribution transition

The population of older persons aged 60 years and above in the entire Arab region has more than quadrupled since 1970, increasing from approximately only 7 million older persons in 1970 to nearly 27 million in 2015. Despite this increase, this age group still constituted the smallest age group as a proportion of the total population in the Arab region, moving up from 5.7 per cent to 6.7 per cent from 1970 to 2015.

In 2015, within the older persons age group, only 4.3 per cent were older than 65 years old and only 1.5 per cent were 75 years or above, as shown in Table 12. When compared to other regions, the share of the population of older persons in the Arab region is still

small. For example, the share of OECD population 65 years and above varied by country from 15 per cent to 23 per cent in 2010.[34]

This trend is also prevalent when individual countries in the region are compared. Only Tunisia and Lebanon have relatively significant proportions of the population 65 years or above (7.6 per cent and 8.1 per cent, respectively) while shares of the total population of those 75 years or above are small (3.1 per cent and 3.2 per cent respectively). However, even if these proportions are not as relatively high, the corresponding numbers of older persons are increasing rapidly, which highlights the urgent nature of ageing in the Arab region, its consequences on societies and the implications in terms of policies, resources and services.

Table 12: Proportion (%) of the population 60, 65 and 75 years and older, 2015

Country	% of the Total Population		
	60+	65+	75+
Algeria	8.9	5.9	2.3
Bahrain	4.1	2.3	0.7
Comoros	4.7	2.9	0.9
Djibouti	6.2	4.1	1.2
Egypt	7.7	5.1	1.6
Iraq	5.0	3.1	1.0
Jordan	5.5	3.8	1.3
Kuwait	4.1	2.1	0.5
Lebanon	11.5	8.1	3.2
Libya	6.5	4.3	1.6
Mauritania	4.9	3.1	0.9
Morocco	10.0	6.4	2.4
Oman	3.8	2.3	0.8

[34] OECD, 2017.

Qatar	2.3	1.1	0.3
Saudi Arabia	5.2	3.1	1.0
Somalia	4.3	2.7	0.7
Palestine	4.5	3.0	0.9
Sudan	5.4	3.5	1.1
Syria	6.4	4.0	1.5
Tunisia	11.7	7.6	3.1
UAE	2.0	1.0	0.2
Yemen	4.5	2.9	0.8
Arab Region	**6.7**	**4.3**	**1.5**

Source: The United Nations World Population Prospects (2017)

Because of the sharp decline of fertility rates, three countries in the Arab region, namely Lebanon, Morocco and Tunisia, had populations aged 60 years and above represented 11.5, 10.0 and 11.7 per cent of the population, respectively, in 2015. This age group is expected to represent a proportion of 13.4 per cent of the population in Tunisia, 13.1 per cent in Lebanon, and 11.9 per cent in Morocco by 2020.

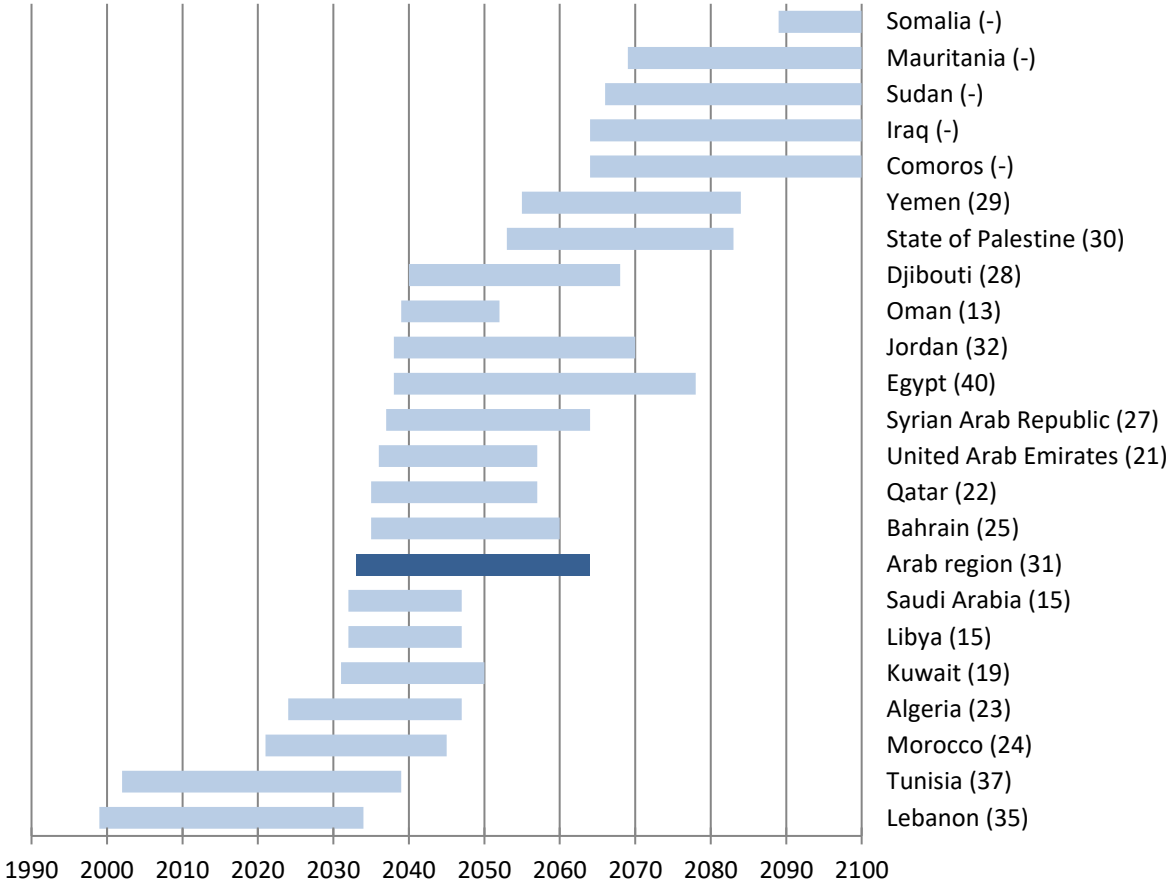
B.4. The pace of age distribution transition

Compared to other regions, the phenomenon of demographic transitions and population ageing in developed countries has occurred over long and gradual stretches of time and posed development challenges, mostly related to unemployment and sustainability of pensions. However, the Arab region is not witnessing such similarly slow and steady ageing processes. In fact, nearly half of the countries in the region are experiencing an ageing process that is taking place at a fast or moderate pace, driven primarily by a rapid fertility decline but increasingly, also, by a steady increase in life expectancy.

Therefore, the Arab region's countries are projected to have little time to adjust to the various consequences of population ageing, especially considering the relatively low level of socioeconomic development in many countries of the region as well as taking into special consideration the dire ramifications and risks forced by armed conflicts and humanitarian crisis.

Figure 11 below shows two important trends relating to population ageing in the Arab region. Firstly, the figure illustrates the estimated length of time over which population ageing will occur, which is marked in parenthesis next to the country. This is marked by charting the sequence of years in which the population will transition from an ageing population (older persons aged 65 and above constitute 7 per cent of the total population) to an aged population (older persons aged 65 and above constitute 14 per cent of the total population.)[35]

Figure 11: Projected years during which the proportion of the population aged 65 years and older will move from 7 to 14 per cent of the total population



Source: ESCWA calculation according to data of United Nations (World Population Prospects, 2017), medium variant

The transition period in which population ageing will occur will range from 13 to 40 years. This transition is, therefore, considerably faster compared to the length of time that it took for example, OECD countries to age, which was an extended period of time ranging from 50 to 150 years in most of them.[36] The ending year is not included for the countries that

[35] The literature defines the cut-off age for measuring ageing as 65 years old, as it is the most frequently used age to measure the speed of ageing and to characterize a population as ageing or aged. See: WHO, 2011; Kinsella, Kevin and Wan He, 2009; Chittinandana and others, 2017; Martin, 2011.

[36] https://fr.statista.com/statistiques/562594/part-de-la-population-agee-de-plus-de-65-ans-ocde/ [accessed on 3/09/2017]

continue ageing past the year 2100, these include Somalia, Comoros, Iraq, Sudan, and Mauritania, and the number of years that the ageing transition will take cannot be projected for those countries.

Secondly, Figure 11 also estimates the dates at which each population will experience the transition from "ageing" to "aged", with the exception of the countries that will continue the ageing process past the year 2100. These years are especially important for policymakers to consider, noting that the period preceding the time of ageing represents a valuable opportunity for countries to invest today in advanced planning and sound policies to be able to address successfully the specific needs and demands of older persons.

As Figure 11 indicates, the majority of countries in the Arab region have already started the ageing process or will begin in the next two decades. Leading the transition are the fast-ageing countries: Lebanon and Tunisia, which have already started ageing, and Morocco and Algeria, which will start the process before 2030. Countries that are experiencing "moderate ageing", namely Bahrain, Djibouti, Egypt, Jordan, Kuwait, Libya, Oman, Qatar, Saudi Arabia, the Syrian Arab Republic, and United Arab Emirates, are predicted to begin the ageing transition between 2030 and 2050 and become aged by as early as 2047 in case of Libya and Saudi Arabia. In other countries in the region, labelled as slow-ageing, the process is expected to begin later and to take longer, beginning after 2050 and continuing beyond 2100.

Summary of key points:

- By 2050, older persons aged 60 and above in the Arab region will amount to more than 15% of the total population, and the numbers of active working age adults will increase to 300 million people, more than the combined numbers of both children (170 million) and youth (104 million).
- Within the older persons population itself, persons 60 and older comprised 6.7%, 65 and older comprised 4.3% and 75 and older represented the least share of 1.5% in 2015 at the regional level. This trend is also prevalent at country levels.
- In many countries, such as Algeria, Kuwait, Lebanon, Libya, Morocco, Oman, Saudi Arabia and Tunisia, by 2050 the proportion of older persons will exceed 20% in the total population of each. Conversely, very youthful countries, such as Comoros, Iraq, Mauritania, Somalia, Palestine, Sudan and Yemen, will have relatively lower proportional levels of older persons, reaching less than 11%.
- Women will continue to outlive men in the Arab region.
- Whilst ageing unfolded in OECD countries within a long and steady span of 50-150 years, it will take as little as 13-40 years for Arab countries to become aged, bearing with it tremendous challenges given the little time they have to make the necessary adjustments, coupled with scarce resources and emerging issues posed by ongoing conflicts.
- In slow ageing countries, however, the transition process will begin after 2050 and continue beyond 2100 in most of them.

C. Dependency Ratios

To evaluate the economic impact of population age structure on a society's resources, demographers use the dependency ratio. This ratio is calculated as the number of people in a "*dependent age group*" (people younger than 15 or older than 64 years) divided by the working-age population (people aged 15-64).[37]

The dependency ratio in the Arab region is gradually shifting towards more dependency of older persons.

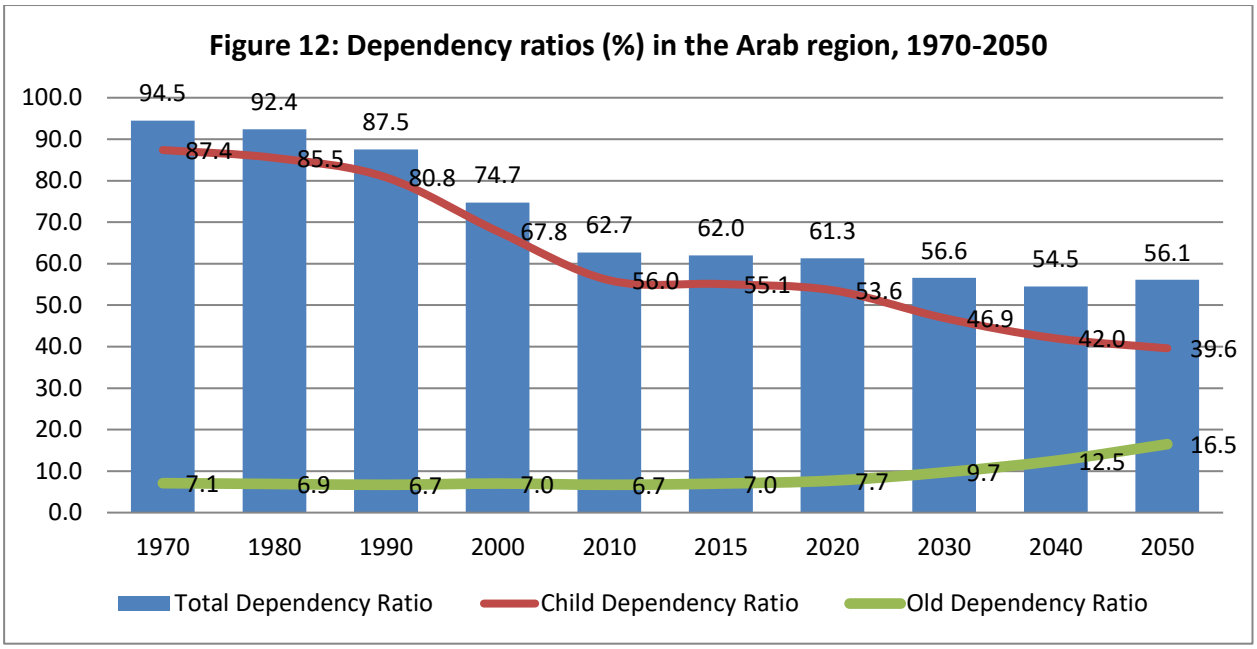
By 2050, the region's old-age dependency ratio will reach 16.5%. Lebanon will have the highest ratio, estimated at 37.1%.

Adding the child and old-age dependency ratios together results in the total dependency ratio. It is often assumed that older persons and children are dependent on persons of working-age in the same way. However, older persons do differ from children in the nature and extent to which they become dependent.

For example, some older persons might become physically dependent due to the onset of physical disability or due to aging-induced decline of physical and mental capacities, but they may still be financially secure and independent. On the other hand, children are, in general, dependent both physically and financially upon their parents and adults. In addition, researchers argue that dependency ratios have critical limitations, since they conflate age with dependency, both for populations aged 65 years and above and for those under age 15. Dependency ratios are presented in this section to serve as an indicator and measure of ageing, but given these limitations, it should be interpreted with caution.

Figure 12 illustrates past trends in the child, old-age and total dependency ratios in the Arab region from 1970 to 2015 and includes projections through 2050. The figure shows that the child dependency ratio decreased from 87.4 per cent in 1970 to 55.1 per cent in 2015, with a further downward trend projected to continue in the future. At the same time, the old-age dependency ratio, which stood around 7 per cent between 1970 and 2015, is projected to steadily increase until 2030, after which the rate will quickly accelerate to reach a high of 16.5 per cent in 2050. Consequently, the total dependency ratio has decreased rapidly from 1970 to 2015, from 94.5 per cent to 62 per cent. In the future, the total dependency ratio is expected to further decrease to reach over 56 per cent by 2050.

[37] Dividing older persons dependency ratio by child dependency ratio will result in the ageing index.



Source: United Nations, World Population Prospects (2017), Medium Variant.

According to available data for 2015, countries in the Arab region with high fertility also had relatively high total dependency ratios. Countries with especially high dependency ratios included Comoros, Iraq, Mauritania, Palestine, Somalia, Sudan and Yemen, ranging from 97.4 per cent to 75.5 per cent. In these countries, the high dependency ratios are explained by the high share of children. In contrast, countries with high positive net migration rates, which has recurred primarily through labour migration, had small total dependency ratios below 33 per cent. These countries were UAE, Qatar, Kuwait, Bahrain and Oman (see Annex 16).

Owing to their early fertility transition, Lebanon, Tunisia and, to some extent, Morocco were the three countries with relatively significant old-age dependency ratios: 12 per cent, 11.1 per cent and 9.7 per cent in 2015, respectively (Table 13). Algeria is expected to have an equivalent level of 10.8 per cent by 2020. By 2030, these rates are projected to increase significantly, varying from 14 per cent in Algeria to 20.6 per cent in Lebanon. In 2050, Arab countries are projected to have relatively high old-age dependency ratios, ranging from 14.6 per cent to 37.1 per cent, except for those with high fertility rates observed in 2015, namely Comoros, Iraq, Mauritania, Palestine, Somalia, Sudan and Yemen, which will have old-age dependency ratios below 11 per cent.

Table 13: Old-Age Dependency Ratio (in %)

Country	1970	1980	1990	2000	2010	2015	2020	2030	2040	2050
Algeria	7.1	6.8	6.3	7.1	8.1	9.0	10.8	14.0	18.5	26.9
Bahrain	4.7	3.3	3.4	3.6	2.7	3.0	3.4	7.3	12.7	17.8
Comoros	5.8	6.2	6.2	5.7	5.3	5.1	5.4	6.3	7.3	9.0
Djibouti	4.6	4.6	4.9	5.4	5.9	6.4	6.7	8.7	11.1	14.6
Egypt	7.9	8.1	8.3	8.4	7.6	8.2	8.7	10.3	12.4	16.5
Iraq	7.8	8.3	7.6	6.5	6.0	5.5	5.9	6.0	8.1	10.0
Jordan	6.4	6.7	6.3	5.3	6.2	6.2	6.4	8.3	12.5	16.9
Kuwait	3.4	2.8	2.1	2.2	2.7	2.7	4.0	9.0	17.9	23.3
Lebanon	9.5	9.7	9.9	11.1	12.4	12.0	13.3	20.6	27.1	37.1
Libya	6.0	5.6	5.6	6.0	6.2	6.4	6.8	9.1	16.5	25.5
Mauritania	4.8	5.5	6.0	5.9	5.6	5.5	5.6	6.5	7.7	9.1
Morocco	7.0	6.2	7.0	8.6	9.4	9.7	11.6	17.2	21.9	28.5
Oman	6.3	5.2	4.4	4.0	3.8	3.1	3.3	5.8	10.6	19.3
Qatar	3.2	2.4	1.8	2.3	1.2	1.3	2.1	5.6	12.0	16.6
Saudi Arabia	6.6	5.6	5.1	5.1	4.4	4.3	5.2	9.2	16.6	25.1
Somalia	5.9	6.0	5.6	5.3	5.3	5.3	5.4	5.4	5.4	5.6
State of Palestine	6.0	4.7	4.3	4.6	5.0	5.2	5.4	6.6	8.5	10.9
Sudan	5.9	5.9	5.7	5.8	6.1	6.3	6.5	7.1	7.9	8.8
Syria	6.9	6.2	6.1	6.0	5.8	7.0	8.0	9.6	12.5	17.4
Tunisia	6.8	7.2	8.4	10.6	10.8	11.1	13.2	18.8	24.1	31.7
UAE	2.3	2.0	1.8	1.5	0.9	1.2	1.6	5.3	12.2	18.5
Yemen	5.8	5.9	5.4	5.8	4.9	5.1	5.2	5.4	6.0	8.7
Arab Region	**7.1**	**6.9**	**6.7**	**7.0**	**6.7**	**7.0**	**7.7**	**9.7**	**12.5**	**16.5**

Source: The United Nations World Population Prospects (2017)

Notes: 1) Old-Age Dependency Ratio (Age 65+ / Age 15-64)

2) De facto population as of 1 July of the year indicated.

The observed and expected rise in old-age dependency ratios is generally offset by the rapid decline of child dependency ratios. Child dependency ratios decreased from 1970 to 2015, except in Somalia where it increased before it started to decline after 2010. Decline in child dependency ratio is projected to be the most significant in Bahrain, Oman, Syrian Arab Republic, Algeria, Libya, Morocco and Tunisia (Annex 17).

Summary of key points:

- While child dependency in the Arab region is expected to decline in the next few decades from 55.1 per cent in 2015 to 46.9 per cent in 2030 and reach 39.6 per cent by 2050, it must be noted that it remains high.
- Old-age dependency in the Arab region had been stable and almost stagnant at 7 per cent for more than five decades, or since 1970. However, it is projected to increase steadily from 2015: in 2030 it will reach 9.7 per cent and then start accelerating up to 16.5 per cent by 2050.
- When both child and old-age dependency ratios are combined, the Arab region features a high total dependency ratio of 62 per cent in 2015, which is, however, expected to decline to 56.6 per cent in 2030 and further decrease slightly to 56.1 per cent by 2050 due to increasing old-age dependency and remaining relatively high child dependency.

- Countries in the Arab region with very high dependency ratios include Comoros, Iraq, Mauritania, Palestine, Somalia, Sudan and Yemen, ranging from 97.4 per cent to 75.5 per cent in 2015 (compared to a regional average of 62 per cent) owing to the high share of children in those countries.
- Countries in the Arab region with high net migration, which has recurred primarily through labour migration, had small dependency ratios of less than 33 per cent and included UAE, Qatar, Kuwait, Bahrain and Oman.

D. Conclusion and Key Findings

As evidenced from the detailed demographic overview of trends and prospects, population ageing in the Arab region is rapidly unfolding and marking a historic turn in population structures in the region. Many factors have contributed to ageing: at the regional level, fertility and mortality declines were the primary drivers, while migration had a much lesser impact except in a few countries where it contributes to delaying the ageing transition.

However, population ageing as an emerging phenomenon happens to be occurring at the same time as the region struggles to secure resources demanded by its youth mass waiting to transit into the working age. These two coinciding trends will be continuing into the future, with some regional or sub-regional variations, nevertheless, all countries will be moving into a gradual decrease of the proportion of youth.

This paper has provided evidence of the rapid advent of ageing in the region. The transition of the population structure will have signifant ramifications for society and the economy. Therefore, States should take into consideration the followign hey findings regarding this transtion when preparing their policies and strategies to ensure that older persons today and in the future can age well and with dignity.

D.1. Historic expansion of population size and population of older persons

Since 1970, the size of the total population of the Arab region has more than tripled, expanding from 123.5 million to 398.5 million in 2015. This phenomenal growth has occurred, however, at a slightly decreasing annual rate, which declined from 2.82 per cent from 1970-2000 to 2.28 per cent between 2000 and 2015. In the future, the region's population is expected to grow further to 520.8 million by 2030 and to 676.3 million by 2050. This growth will occur more slowly, at an average annual growth rate of 1.52 per cent, between 2015 and 2050.

During the same timespan of 1970-2015, the size of the population of older persons has expanded more than threefold from 7 million to nearly 27 million. This demographic

trend is expected to continue as the population aged 60 years and above is projected to reach 49.6 million in 2030 and exceed 102 million by 2050.

D.2. Fertility decline is common to many but not all

Past high levels of fertility across the region, accompanied by improvement in life expectancy at birth and at 60 years of age, have unequivocally been the driving forces behind a steady increase of the population of older persons. Most countries showed an appreciable decline in their fertility since the mid-1970's, with a few exceptions such as Somalia, Yemen and Oman. In 2015, the average fertility level for all Arab countries was 3.4 CPW, and it is anticipated that most countries will reach below replacement level fertilities by 2050, with many others still maintaining relatively high fertility rates, however. Somalia and Mauritania will have fertility rates above 3 CPW and Comoros, Sudan, Iraq, Palestine and Egypt between 2.3 CPW and 3 CPW. The overall fertility decline combined with mortality decrease will have a major impact on the age structure of populations, and particularly on the number and proportion of older persons.

D.3. Living longer with prevailing gender gaps

While in 1970, life expectancy at birth was estimated at below 60 years of age in 16 Arab countries, in 2015, it became equal to or exceeded 70 years of age, and by 2050 the region will witness a historic achievemnt as life expectancy at birth is expected to reach an average of 76.4 years. Neverthless, there are significant variations between countries in the region, with a projected low life expectancy of 66.8 years in Somalia and a high life expectancy of 85.2 in Lebanon in 2050. However, this variation between countries is decreasing from a difference of about 27 years in 1970 to about 24 years in 2015, and to 18 years in 2050.

In the context of ageing, life expectancy at age 60 is equally considered an important indicator to measure and monitor progress. In the region, life expectancy at age 60 increased by 3.4 years between 1970 and 2015, from 15.5 to 18.9 years. In the future, it will likely reach 20 years in 2030 and 22 years in 2050.

For the region as a whole, differences in life expectancy between men and women increased from 2.6 years of higher life expectancy for women in 1970 to 3.9 years in 2015. This trend is expected to continue through 2050, when women are likely to have an average life expectancy four years higher than that of men. This difference in life expectancy by sex results in a higher number of older persons who are women than men, now and in the future. The predominance of women among older persons generates an ageing population that will continue to be more vulnerable to poverty.

Population ageing is also associated with a rapid epidemiological transition towards more chronic non-communicable diseases associated with old age.

D.4. Migration is dominant but has uneven impact on ageing

An important component of demographic dynamics in the Arab region is migration, which played an important role in the demographic growth of many countries. For the GCC countries, migrants constitute a sizable proportion of the total population. However, because return migration often occurs at advanced ages and the age structure of migrants is usually significantly younger than the national population, international migration is not a major source of ageing in these countries. Rather, it is a factor that may delay the ageing process in some countries.

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Annexes

Annex 1

Methodology: Comparison of Low, Medium, and High Variant Projections

Table A1.I Size and proportion of the population aged 60 and above in the Arab region (in thousands and %)

Projection Variants	2015		2030		2050	
	Size	%	Size	%	Size	%
Medium Variant	26826	6.7	49594	9.5	102087	15.1
High Variant	26826	6.7	49594	9.5	102087	13.6
Low Variant	26826	6.7	49594	9.5	102087	16.8
Constant-Mortality	26826		47753		89907	

Source: DESA, *World Population Prospects* (2017)

Table A1.II Population aged 60 and above and 75 and above (in thousands)

Country	Variants	60+			75+		
		2015	2030	2050	2015	2030	2050
Algeria	**Medium variant**	3564	6478	13222	926	1718	4062
	High variant	3564	6478	13222	926	1718	4062
	Low variant	3564	6478	13222	926	1718	4062

	Constant-mortality	3564	6254	11819	926	1592	3217
Bahrain	**Medium variant**	57	185	405	10	25	126
	High variant	57	185	405	10	25	126
	Low variant	57	185	405	10	25	126
	Constant-mortality	57	179	353	10	22	93
Comoros	**Medium variant**	37	64	133	7	11	24
	High variant	37	64	133	7	11	24
	Low variant	37	64	133	7	11	24
	Constant-mortality	37	63	122	7	10	21
Djibouti	**Medium variant**	57	103	203	11	19	43
	High variant	57	103	203	11	19	43
	Low variant	57	103	203	11	19	43
	Constant-mortality	57	101	192	11	19	39
Egypt	**Medium variant**	7226	11831	23689	1518	2499	5612
	High variant	7226	11831	23689	1518	2499	5612
	Low variant	7226	11831	23689	1518	2499	5612
	Constant-mortality	7226	11305	20453	1518	2265	4071
Iraq	**Medium variant**	1812	3172	7454	375	627	1661
	High variant	1812	3172	7454	375	627	1661
	Low variant	1812	3172	7454	375	627	1661
	Constant-mortality	1812	3096	6775	375	594	1355
Jordan	**Medium variant**	506	970	2178	115	180	595

	High variant	506	970	2178	115	180	595
	Low variant	506	970	2178	115	180	595
	Constant-mortality	506	936	1940	115	164	460
Kuwait	**Medium variant**	160	588	1158	21	64	358
	High variant	160	588	1158	21	64	358
	Low variant	160	588	1158	21	64	358
	Constant-mortality	160	571	1009	21	57	259
Lebanon	**Medium variant**	671	1022	1688	188	299	601
	High variant	671	1022	1688	188	299	601
	Low variant	671	1022	1688	188	299	601
	Constant-mortality	671	973	1457	188	268	435
Libya	**Medium variant**	402	806	1848	98	144	491
	High variant	402	806	1848	98	144	491
	Low variant	402	806	1848	98	144	491
	Constant-mortality	402	783	1662	98	133	392
Mauritania	**Medium variant**	206	377	789	37	61	147
	High variant	206	377	789	37	61	147
	Low variant	206	377	789	37	61	147
	Constant-mortality	206	372	749	37	59	132
Morocco	**Medium variant**	3464	6435	10977	833	1519	3642
	High variant	3464	6435	10977	833	1519	3642
	Low variant	3464	6435	10977	833	1519	3642

	Constant-mortality	3464	6154	9405	833	1345	2493
Oman	**Medium variant**	161	422	1373	34	76	345
	High variant	161	422	1373	34	76	345
	Low variant	161	422	1373	34	76	345
	Constant-mortality	161	401	1175	34	68	243
Qatar	**Medium variant**	58	278	689	9	31	216
	High variant	58	278	689	9	31	216
	Low variant	58	278	689	9	31	216
	Constant-mortality	58	270	602	9	28	162
Saudi Arabia	**Medium variant**	1653	4356	10323	312	672	2895
	High variant	1653	4356	10323	312	672	2895
	Low variant	1653	4356	10323	312	672	2895
	Constant-mortality	1653	4192	9000	312	604	2130
Somalia	**Medium variant**	602	962	1883	102	180	353
	High variant	602	962	1883	102	180	353
	Low variant	602	962	1883	102	180	353
	Constant-mortality	602	937	1696	102	173	309
State of Palestine	**Medium variant**	211	423	1022	41	82	244
	High variant	211	423	1022	41	82	244
	Low variant	211	423	1022	41	82	244
	Constant-mortality	211	408	901	41	75	184
Sudan	**Medium variant**	2078	3544	6700	410	718	1465

	High variant	2078	3544	6700	410	718	1465
	Low variant	2078	3544	6700	410	718	1465
	Constant-mortality	2078	3505	6383	410	708	1386
Syrian Arab Republic	**Medium variant**	1192	2486	5461	277	547	1503
	High variant	1192	2486	5461	277	547	1503
	Low variant	1192	2486	5461	277	547	1503
	Constant-mortality	1192	2339	4517	277	488	1046
Tunisia	**Medium variant**	1316	2273	3675	355	556	1217
	High variant	1316	2273	3675	355	556	1217
	Low variant	1316	2273	3675	355	556	1217
	Constant-mortality	1316	2165	3142	355	497	867
United Arab Emirates	**Medium variant**	179	896	2461	22	80	770
	High variant	179	896	2461	22	80	770
	Low variant	179	896	2461	22	80	770
	Constant-mortality	179	867	2137	22	73	579
Yemen	**Medium variant**	1213	1921	4758	213	370	727
	High variant	1213	1921	4758	213	370	727
	Low variant	1213	1921	4758	213	370	727
	Constant-mortality	1213	1882	4417	213	358	635
Arab Region	**Medium variant**	26826	49594	102087	5915	10477	27096
	High variant	26826	49594	102087	5915	10477	27096
	Low variant	26826	49594	102087	5915	10477	27096

	Constant-mortality	26826	47753	89907	5915	9601	20508

Source: DESA, *World Population Prospects* (2017).

Table A1.III Fertility, mortality and migration hypotheses for Arab countries

Country	Variant	Total Fertility Rate			Number of Migrants (in Thousands)			Life Expectancy at Birth (Years)		
		2015	2030	2050	2015	2030	2050	2015	2030	2050
Algeria	**Medium variant**	2.8	2.2	3.9	-96.6	-50.0	-48.8	75.8	78.9	82.3
	High variant	2.8	2.7	4.9	-96.6	-50.0	-48.8	75.8	78.9	82.3
	Low variant	2.8	1.7	1.5	-96.6	-50.0	-48.8	75.8	78.9	82.3
	Constant-mortality	2.8	2.2	3.9	-96.6	-50.0	-48.8	75.8	75.8	75.8
Bahrain	**Medium variant**	2.1	1.8	3.3	138.5	47.5	19.5	76.8	78.8	81.4
	High variant	2.1	2.3	4.3	138.5	47.5	19.5	76.8	78.8	81.4
	Low variant	2.1	1.3	1.2	138.5	47.5	19.5	76.8	78.8	81.4
	Constant-mortality	2.1	1.8	3.3	138.5	47.5	19.5	76.8	76.8	76.8
Comoros	**Medium variant**	4.4	3.5	5.6	-10.0	-10.0	-9.8	63.4	66.3	69.1
	High variant	4.4	4.0	6.6	-10.0	-10.0	-9.8	63.4	66.3	69.1
	Low variant	4.4	3.0	2.3	-10.0	-10.0	-9.8	63.4	66.3	69.1
	Constant-mortality	4.4	3.5	5.6	-10.0	-10.0	-9.8	63.4	63.4	63.4
Djibouti	**Medium variant**	2.9	2.3	3.8	5.3	4.5	4.4	62.1	65.0	68.0
	High variant	2.9	2.8	4.8	5.3	4.5	4.4	62.1	65.0	68.0

	Low variant	2.9	1.8	1.4	5.3	4.5	4.4	62.1	65.0	68.0
	Constant-mortality	2.9	2.3	3.8	5.3	4.5	4.4	62.1	62.1	62.1
Egypt	**Medium variant**	3.3	2.7	4.6	-275.0	-225.0	-219.4	71.3	73.8	76.7
	High variant	3.3	3.2	5.6	-275.0	-225.0	-219.4	71.3	73.8	76.7
	Low variant	3.3	2.2	1.8	-275.0	-225.0	-219.4	71.3	73.8	76.7
	Constant-mortality	3.3	2.7	4.6	-275.0	-225.0	-219.4	71.3	71.3	71.3
Iraq	**Medium variant**	4.4	3.7	6.1	251.4	-56.2	-29.3	69.7	72.0	74.7
	High variant	4.4	4.2	7.1	251.4	-56.2	-29.3	69.7	72.0	74.7
	Low variant	4.4	3.2	2.5	251.4	-56.2	-29.3	69.7	72.0	74.7
	Constant-mortality	4.4	3.7	6.1	251.4	-56.2	-29.3	69.7	69.7	69.7
Jordan	**Medium variant**	3.4	2.7	4.3	487.6	-295.0	-19.5	74.2	76.3	79.0
	High variant	3.4	3.2	5.3	487.6	-295.0	-19.5	74.2	76.3	79.0
	Low variant	3.4	2.2	1.7	487.6	-295.0	-19.5	74.2	76.3	79.0
	Constant-mortality	3.4	2.7	4.3	487.6	-295.0	-19.5	74.2	74.2	74.2
Kuwait	**Medium variant**	2.0	1.9	3.6	385.0	65.0	43.9	74.6	76.3	78.8
	High variant	2.0	2.4	4.6	385.0	65.0	43.9	74.6	76.3	78.8
	Low variant	2.0	1.4	1.3	385.0	65.0	43.9	74.6	76.3	78.8
	Constant-mortality	2.0	1.9	3.6	385.0	65.0	43.9	74.6	74.6	74.6
Lebanon	**Medium variant**	1.7	1.7	3.4	550.0	-310.0	-19.5	79.4	82.0	85.2
	High variant	1.7	2.2	4.4	550.0	-310.0	-19.5	79.4	82.0	85.2
	Low variant	1.7	1.2	1.2	550.0	-310.0	-19.5	79.4	82.0	85.2
	Constant-mortality	1.7	1.7	3.4	550.0	-310.0	-19.5	79.4	79.4	79.4

Libya	**Medium variant**	2.3	1.9	3.5	-221.7	-10.0	-9.7	71.9	74.1	76.8
	High variant	2.3	2.4	4.5	-221.7	-10.0	-9.7	71.9	74.1	76.8
	Low variant	2.3	1.4	1.3	-221.7	-10.0	-9.7	71.9	74.1	76.8
	Constant-mortality	2.3	1.9	3.5	-221.7	-10.0	-9.7	71.9	71.9	71.9
Mauritania	**Medium variant**	4.7	3.9	6.3	32.8	15.3	14.9	63.0	65.1	67.4
	High variant	4.7	4.4	7.3	32.8	15.3	14.9	63.0	65.1	67.4
	Low variant	4.7	3.4	2.7	32.8	15.3	14.9	63.0	65.1	67.4
	Constant-mortality	4.7	3.9	6.3	32.8	15.3	14.9	63.0	63.0	63.0
Morocco	**Medium variant**	2.5	2.1	3.8	-282.1	-257.1	-250.7	75.5	78.9	82.6
	High variant	2.5	2.6	4.8	-282.1	-257.1	-250.7	75.5	78.9	82.6
	Low variant	2.5	1.6	1.4	-282.1	-257.1	-250.7	75.5	78.9	82.6
	Constant-mortality	2.5	2.1	3.8	-282.1	-257.1	-250.7	75.5	75.5	75.5
Oman	**Medium variant**	2.7	2.0	3.5	711.3	30.0	19.5	76.8	80.1	83.8
	High variant	2.7	2.5	4.5	711.3	30.0	19.5	76.8	80.1	83.8
	Low variant	2.7	1.5	1.2	711.3	30.0	19.5	76.8	80.1	83.8
	Constant-mortality	2.7	2.0	3.5	711.3	30.0	19.5	76.8	76.8	76.8
Qatar	**Medium variant**	1.9	1.7	3.3	401.0	95.0	58.5	78.0	80.3	83.3
	High variant	1.9	2.2	4.3	401.0	95.0	58.5	78.0	80.3	83.3
	Low variant	1.9	1.2	1.1	401.0	95.0	58.5	78.0	80.3	83.3
	Constant-mortality	1.9	1.7	3.3	401.0	95.0	58.5	78.0	78.0	78.0
Saudi Arabia	**Medium variant**	2.6	2.1	3.5	1090.0	300.0	195.0	74.4	76.6	79.6
	High variant	2.6	2.6	4.5	1090.0	300.0	195.0	74.4	76.6	79.6

	Low variant	2.6	1.6	1.3	1090.0	300.0	195.0	74.4	76.6	79.6
	Constant-mortality	2.6	2.1	3.5	1090.0	300.0	195.0	74.4	74.4	74.4
Somalia	**Medium variant**	6.4	5.0	7.4	-213.3	-149.8	-146.1	55.9	61.5	66.8
	High variant	6.4	5.5	8.4	-213.3	-149.8	-146.1	55.9	61.5	66.8
	Low variant	6.4	4.5	3.2	-213.3	-149.8	-146.1	55.9	61.5	66.8
	Constant-mortality	6.4	5.0	7.4	-213.3	-149.8	-146.1	55.9	55.9	55.9
State of Palestine	**Medium variant**	4.1	3.2	5.2	-38.3	-25.0	-24.4	73.3	75.8	78.7
	High variant	4.1	3.7	6.2	-38.3	-25.0	-24.4	73.3	75.8	78.7
	Low variant	4.1	2.7	2.1	-38.3	-25.0	-24.4	73.3	75.8	78.7
	Constant-mortality	4.1	3.2	5.2	-38.3	-25.0	-24.4	73.3	73.3	73.3
Sudan	**Medium variant**	4.6	3.8	6.1	-419.7	-50.0	-48.8	64.2	67.3	70.5
	High variant	4.6	4.3	7.1	-419.7	-50.0	-48.8	64.2	67.3	70.5
	Low variant	4.6	3.3	2.5	-419.7	-50.0	-48.8	64.2	67.3	70.5
	Constant-mortality	4.6	3.8	6.1	-419.7	-50.0	-48.8	64.2	64.2	64.2
Syrian Arab Republic	**Medium variant**	3.0	2.4	3.9	-2698.9	715.0	-48.7	70.6	78.3	81.0
	High variant	3.0	2.9	4.9	-2698.9	715.0	-48.7	70.6	78.3	81.0
	Low variant	3.0	1.9	1.4	-2698.9	715.0	-48.7	70.6	78.3	81.0
	Constant-mortality	3.0	2.4	3.9	-2698.9	715.0	-48.7	70.6	70.6	70.6
Tunisia	**Medium variant**	2.2	2.0	3.7	-43.0	-20.0	-19.5	75.6	78.3	81.6
	High variant	2.2	2.5	4.7	-43.0	-20.0	-19.5	75.6	78.3	81.6
	Low variant	2.2	1.5	1.4	-43.0	-20.0	-19.5	75.6	78.3	81.6
	Constant-mortality	2.2	2.0	3.7	-43.0	-20.0	-19.5	75.6	75.6	75.6

United Arab Emirates	**Medium variant**	1.8	1.6	3.3	390.5	275.0	243.8	77.1	79.4	82.5
	High variant	1.8	2.1	4.3	390.5	275.0	243.8	77.1	79.4	82.5
	Low variant	1.8	1.1	1.1	390.5	275.0	243.8	77.1	79.4	82.5
	Constant-mortality	1.8	1.6	3.3	390.5	275.0	243.8	77.1	77.1	77.1
Yemen	**Medium variant**	4.1	2.9	4.2	-112.5	-135.0	-97.5	64.7	67.5	70.4
	High variant	4.1	3.4	5.2	-112.5	-135.0	-97.5	64.7	67.5	70.4
	Low variant	4.1	2.4	1.6	-112.5	-135.0	-97.5	64.7	67.5	70.4
	Constant-mortality	4.1	2.9	4.2	-112.5	-135.0	-97.5	64.7	64.7	64.7

Source: DESA, *World Population Prospects* (2017).

Annex 2

Share of the population aged 60 years and above in 2050 based on three Scenarios on fertility, mortality and migration

Country	Sustainability Scenario				Continuation Scenario				Fragmentation Scenario			
	Share 60+	TFR[a]	E_0[b]	Mig[c]	Share 60+	TFR[a]	E_0[b]	Mig[c]	Share 60+	TFR[a]	E_0[b]	Mig[c]
Algeria	**30%**	1.3	85.9	-76	**26%**	1.8	81.5	-84	**21%**	2.5	76.4	-43
Bahrain	**31%**	1.3	88.0	136	**28%**	1.8	83.8	135	**26%**	2.4	79.2	87
Comoros	**13%**	1.5	71.3	-11	**10%**	2.1	66.8	-13	**8%**	3	60.7	-7
Djibouti	**18%**	1.4	78.8	0	**13%**	2	67.4	0	**11%**	2.6	57.9	0
Egypt	**24%**	1.4	84.6	-285	**20%**	1.9	80.3	-312	**16%**	2.5	75.3	-157
Iraq	**16%**	1.6	85.8	-210	**13%**	2.1	81.4	-234	**9%**	3.1	75.7	-125
Jordan	**20%**	1.4	86.6	123	**17%**	1.9	82.3	153	**14%**	2.5	77.4	104
Kuwait	**28%**	1.3	87.8	151	**24%**	1.7	83.5	171	**22%**	2.3	79.1	113
Lebanon	**32%**	1.2	85.5	22	**27%**	1.6	81.2	27	**23%**	2.2	76.3	18
Libya	**30%**	1.3	88.9	-8	**25%**	1.8	84.6	-8	**20%**	2.5	79.9	-3
Mauritania	**14%**	1.5	69.9	6	**11%**	2.1	65.4	8	**9%**	2.9	59.5	5
Morocco	**30%**	1.2	85.0	-408	**25%**	1.7	80.7	-466	**19%**	2.4	75.3	-248
Oman	**30%**	1.3	87.5	127	**27%**	1.7	82.7	126	**23%**	2.4	78.5	104

Palestine	**17%**	1.5	86.7	-113	**13%**	2.1	82.4	-127	**10%**	3	77.3	-69
Qatar	**37%**	1.3	90.4	244	**38%**	1.8	86.3	200	**36%**	2.3	81.7	138
Saudi Arabia	**25%**	1.4	86.6	884	**21%**	1.9	82.4	1044	**18%**	2.6	77.6	695
Somalia	**11%**	1.8	64.7	-368	**8%**	2.6	59.8	-436	**6%**	3.8	53.9	-237
Sudan	**14%**	1.5	72.1	100	**12%**	2.1	67.5	124	**10%**	2.9	61.7	80
Syria	**23%**	1.3	88.7	-70	**19%**	1.8	84.4	-73	**15%**	2.5	79.6	-33
Tunisia	**35%**	1.2	86.3	-7	**30%**	1.6	82.1	-8	**25%**	2.2	77.2	-4
U.A.E	**35%**	1.1	88.7	920	**34%**	1.5	84.4	850	**32%**	2	79.9	551
Yemen	**11%**	1.7	76.0	-264	**9%**	2.5	71.5	-301	**7%**	3.5	66	-153
Arab region	**22%**				**18%**				**14%**			

Notes: (a) TFR, total fertility rate.

(b) E_0 = life expectancy at birth for both sexes (in years).

(c) Net number of migrants in 2045-2050 (in thousands).

Source: ESCWA calculation based on Wittgenstein Centre for Demography and Global Human Capital, Wittgenstein Centre Data Explorer, 2015. Available at: http://www.wittgensteincentre.org/dataexplorer (accessed on 18 February 2018).

Annex 3

Population size (in thousands), 1970 - 2050

Region, subregion or country	1970	1980	1990	2000	2010	2015	2020	2030	2040	2050
World	3700578	4458412	5330943	6145007	6958169	7383009	7795482	8551199	9210337	9771823
More Developed Regions	1009082	1084244	1146999	1190505	1235143	1253207	1269277	1289937	1297496	1298069
Less Developed Regions	2691496	3374167	4183944	4954502	5723027	6129802	6526205	7261262	7912841	8473754
Least Developed Regions	308486	393279	510828	664805	848792	956631	1073984	1334196	1618985	1916742
High-Income Countries	851319	929939	1000109	1070130	1148592	1180061	1207775	1249896	1275679	1287798
Middle-Income Countries	2652001	3275988	4006282	4647490	5246882	5558264	5852576	6362054	6764840	7067079
Low-Income Countries	195911	250969	322686	425130	560007	641859	732133	935905	1166159	1413034
Algeria	14550	19338	25912	31184	36118	39872	43333	48822	53249	57437
Bahrain	213	360	496	665	1241	1372	1698	2013	2205	2327
Comoros	230	308	412	542	690	777	870	1062	1262	1463
Djibouti	160	359	590	718	851	927	1000	1133	1237	1308
Egypt	35046	44099	57412	69906	84108	93778	102941	119746	137066	153433
Iraq	9918	13653	17469	23565	30763	36116	41503	53298	66752	81490
Jordan	1719	2374	3561	5103	7182	9159	10209	11122	12680	14188
Kuwait	747	1372	2100	2051	2998	3936	4303	4874	5324	5644

Lebanon	2297	2605	2703	3235	4337	5851	6020	5369	5392	5412
Libya	2134	3219	4437	5356	6169	6235	6662	7342	7825	8124
Mauritania	1149	1534	2030	2709	3610	4182	4784	6077	7482	8965
Morocco	16000	20020	24879	28850	32410	34803	37071	40874	43714	45660
Oman	724	1154	1812	2268	3041	4200	5150	5897	6344	6757
Qatar	110	224	476	592	1780	2482	2792	3232	3537	3773
Saudi Arabia	5836	9741	16327	20764	27426	31557	34710	39480	42778	45056
Somalia	3445	6359	7397	9011	12053	13908	16105	21535	28146	35852
State of Palestine	1125	1509	2101	3223	4067	4663	5323	6739	8208	9704
Sudan	10282	14507	20148	27251	34386	38648	43541	54842	67357	80386
Syria	6351	8931	12446	16411	21019	18735	18924	26608	30799	34021
Tunisia	5060	6368	8233	9699	10640	11274	11903	12842	13435	13884
UAE	235	1042	1860	3155	8271	9154	9813	11055	12207	13164
Yemen	6194	8120	12057	17875	23607	26916	30245	36815	42986	48304
Arab Region	**123525**	**167196**	**224858**	**284133**	**356767**	**398545**	**438900**	**520777**	**599985**	**676352**
Arab Region/World (%)	**3.3**	**3.8**	**4.2**	**4.6**	**5.1**	**5.4**	**5.6**	**6.1**	**6.5**	**6.9**

Source: DESA, World Population Prospects (2017), Medium Variant.

Annex 4

Annual population growth rate (in %)

Region, subregion or country	1970-1980	1980-1990	1990-2000	2000-2010	2010-2015	2015-2020	2020-2030	2030-2040	2040-2050
World	1.88	1.80	1.43	1.25	1.19	1.09	0.93	0.75	0.59
More Developed Regions	0.72	0.56	0.37	0.37	0.29	0.26	0.16	0.06	0.00
Less Developed Regions	2.29	2.17	1.70	1.45	1.38	1.26	1.07	0.86	0.69
Least Developed Regions	2.46	2.65	2.67	2.47	2.42	2.34	2.19	1.95	1.70
High-Income Countries	0.89	0.73	0.68	0.71	0.54	0.47	0.34	0.20	0.09
Middle-Income Countries	2.14	2.03	1.50	1.22	1.16	1.04	0.84	0.62	0.44
Low-Income Countries	2.51	2.55	2.80	2.79	2.77	2.67	2.49	2.22	1.94
Algeria	2.89	2.97	1.87	1.48	2.00	1.68	1.20	0.87	0.76
Bahrain	5.40	3.26	2.97	6.44	2.03	4.36	1.72	0.92	0.54
Comoros	2.96	2.95	2.80	2.43	2.42	2.27	2.02	1.74	1.49
Djibouti	8.44	5.10	1.97	1.72	1.73	1.52	1.25	0.88	0.56
Egypt	2.32	2.67	1.99	1.87	2.20	1.88	1.52	1.36	1.13
Iraq	3.25	2.50	3.04	2.70	3.26	2.82	2.53	2.28	2.02
Jordan	3.28	4.13	3.66	3.48	4.98	2.19	0.86	1.32	1.13
Kuwait	6.27	4.34	-0.24	3.87	5.59	1.80	1.25	0.89	0.58

Lebanon	1.27	0.37	1.81	2.97	6.17	0.57	-1.14	0.04	0.04
Libya	4.20	3.26	1.90	1.42	0.21	1.33	0.98	0.64	0.37
Mauritania	2.93	2.84	2.93	2.91	2.99	2.72	2.42	2.10	1.82
Morocco	2.27	2.20	1.49	1.17	1.44	1.27	0.98	0.67	0.44
Oman	4.78	4.61	2.27	2.98	6.67	4.16	1.37	0.73	0.63
Qatar	7.41	7.85	2.20	11.63	6.87	2.38	1.47	0.91	0.65
Saudi Arabia	5.26	5.30	2.43	2.82	2.85	1.92	1.30	0.81	0.52
Somalia	6.32	1.52	1.99	2.95	2.90	2.98	2.95	2.71	2.45
State of Palestine	2.98	3.36	4.37	2.35	2.77	2.68	2.39	1.99	1.69
Sudan	3.50	3.34	3.07	2.35	2.36	2.41	2.33	2.08	1.78
Syrian Arab Republic	3.47	3.37	2.80	2.51	-2.27	0.20	3.47	1.47	1.00
Tunisia	2.33	2.60	1.65	0.93	1.16	1.09	0.76	0.45	0.33
United Arab Emirates	16.04	5.96	5.42	10.12	2.05	1.40	1.20	1.00	0.76
Yemen	2.75	4.03	4.02	2.82	2.66	2.36	1.99	1.56	1.17
Arab Region	**3.07**	**3.01**	**2.37**	**2.30**	**2.24**	**1.95**	**1.73**	**1.43**	**1.21**

Source: ESCWA calculations based on DESA, Population Division, *World Population Prospects (2017),* Medium Variant

Annex 5

Total fertility (children per woman)

Region, subregion or country	1970	1980	1990	2000	2010	2015	2020	2030	2050
World	4.7	3.7	3.2	2.7	2.5	2.5	2.5	2.4	2.2
More Developed Regions	2.3	1.9	1.7	1.6	1.7	1.7	1.7	1.8	1.8
Less Developed Regions	5.7	4.4	3.6	2.9	2.7	2.6	2.6	2.4	2.3
Least Developed Regions	6.8	6.6	6.0	5.2	4.5	4.2	3.9	3.4	2.9
High-Income Countries	2.5	2.0	1.8	1.7	1.7	1.7	1.7	1.8	1.8
Middle-Income Countries	5.3	4.1	3.4	2.6	2.4	2.4	2.3	2.2	2.1
Low-Income Countries	6.6	6.6	6.3	5.9	5.2	4.8	4.4	3.8	3.0
Algeria	7.6	6.7	4.7	2.6	2.8	2.8	2.5	2.2	2.0
Bahrain	6.5	4.9	3.7	2.8	2.2	2.1	1.9	1.8	1.7
Comoros	7.1	7.1	6.4	5.4	4.8	4.4	4.1	3.5	2.8
Djibouti	6.8	6.5	6.0	4.5	3.3	2.9	2.6	2.3	1.9
Egypt	6.2	5.6	4.6	3.3	3.2	3.3	3.1	2.7	2.3
Iraq	7.3	6.6	5.9	4.9	4.6	4.4	4.1	3.7	3.0
Jordan	7.9	7.2	5.5	4.1	3.7	3.4	3.1	2.7	2.2
Kuwait	7.1	5.3	3.1	2.8	2.2	2.0	1.9	1.9	1.8

Lebanon	4.9	4.0	3.0	2.2	1.6	1.7	1.7	1.7	1.7
Libya	8.0	7.2	5.0	2.9	2.4	2.3	2.1	1.9	1.8
Mauritania	6.8	6.5	6.0	5.5	5.0	4.7	4.4	3.9	3.2
Morocco	6.6	5.7	4.1	2.8	2.6	2.5	2.4	2.1	1.9
Oman	7.4	8.2	7.1	3.8	2.9	2.7	2.4	2.0	1.7
Qatar	6.9	5.8	4.1	3.2	2.1	1.9	1.8	1.7	1.6
Saudi Arabia	7.3	7.1	5.9	4.0	3.0	2.6	2.4	2.1	1.8
Somalia	7.2	7.0	7.4	7.6	6.9	6.4	5.9	5.0	3.7
State of Palestine	7.8	7.3	6.7	5.4	4.4	4.1	3.8	3.2	2.6
Sudan	6.9	6.8	6.2	5.5	4.9	4.6	4.3	3.8	3.0
Syrian Arab Republic	7.6	7.0	5.3	4.1	3.2	3.0	2.7	2.4	1.9
Tunisia	6.7	5.2	3.5	2.2	2.1	2.2	2.1	2.0	1.9
United Arab Emirates	6.6	5.5	4.4	2.7	1.9	1.8	1.7	1.6	1.6
Yemen	7.9	8.7	8.5	6.4	4.7	4.1	3.6	2.9	2.1
Arab Region	**6.9**	**6.3**	**5.2**	**3.9**	**3.5**	**3.4**	**3.2**	**2.8**	**2.4**

Source: ESCWA Calculations based on DESA, *World Population Prospects* (2017), Medium Variant

Annex 6

Proportion of the population age 75 years and above (in %)

Country	Variants			
		2015	2030	2050
Algeria	Medium variant	2.3	3.5	7.1
	High variant	2.3	3.4	6.4
	Low variant	2.3	3.7	7.9
	Constant-mortality	2.3	3.3	5.8
Bahrain	Medium variant	0.7	1.2	5.4
	High variant	0.7	1.2	4.9
	Low variant	0.7	1.3	5.9
	Constant-mortality	0.7	1.1	4.1
Comoros	Medium variant	0.9	1.0	1.6
	High variant	0.9	1.0	1.5
	Low variant	0.9	1.1	1.8
	Constant-mortality	0.9	1.0	1.5
Djibouti	Medium variant	1.2	1.7	3.3
	High variant	1.2	1.6	2.9
	Low variant	1.2	1.8	3.7
	Constant-mortality	1.2	1.7	3.1
Egypt	Medium variant	1.6	2.1	3.7
	High variant	1.6	2.0	3.3
	Low variant	1.6	2.2	4.1
	Constant-mortality	1.6	1.9	2.8
Iraq	Medium variant	1.0	1.2	2.0
	High variant	1.0	1.1	1.8
	Low variant	1.0	1.2	2.3
	Constant-mortality	1.0	1.1	1.7
Jordan	Medium variant	1.3	1.6	4.2

	High variant	1.3	1.6	3.8
	Low variant	1.3	1.7	4.7
	Constant-mortality	1.3	1.5	3.3
Kuwait	**Medium variant**	0.5	1.3	6.3
	High variant	0.5	1.3	5.7
	Low variant	0.5	1.4	7.0
	Constant-mortality	0.5	1.2	4.7
Lebanon	**Medium variant**	3.2	5.6	11.1
	High variant	3.2	5.3	9.9
	Low variant	3.2	5.9	12.6
	Constant-mortality	3.2	5.0	8.5
Libya	**Medium variant**	1.6	2.0	6.1
	High variant	1.6	1.9	5.4
	Low variant	1.6	2.0	6.8
	Constant-mortality	1.6	1.8	5.0
Mauritania	**Medium variant**	0.9	1.0	1.6
	High variant	0.9	1.0	1.5
	Low variant	0.9	1.0	1.8
	Constant-mortality	0.9	1.0	1.5
Morocco	**Medium variant**	2.4	3.7	8.0
	High variant	2.4	3.6	7.2
	Low variant	2.4	3.9	8.9
	Constant-mortality	2.4	3.3	5.7
Oman	**Medium variant**	0.8	1.3	5.1
	High variant	0.8	1.3	4.7
	Low variant	0.8	1.3	5.6
	Constant-mortality	0.8	1.2	3.8
Qatar	**Medium variant**	0.3	0.9	5.7
	High variant	0.3	0.9	5.3
	Low variant	0.3	1.0	6.2

	Constant-mortality	0.3	0.9	4.4
Saudi Arabia	**Medium variant**	1.0	1.7	6.4
	High variant	1.0	1.6	5.8
	Low variant	1.0	1.8	7.1
	Constant-mortality	1.0	1.5	4.9
Somalia	**Medium variant**	0.7	0.8	1.0
	High variant	0.7	0.8	0.9
	Low variant	0.7	0.9	1.1
	Constant-mortality	0.7	0.8	1.0
State of Palestine	**Medium variant**	0.9	1.2	2.5
	High variant	0.9	1.2	2.3
	Low variant	0.9	1.3	2.8
	Constant-mortality	0.9	1.1	1.9
Sudan	**Medium variant**	1.1	1.3	1.8
	High variant	1.1	1.3	1.7
	Low variant	1.1	1.4	2.0
	Constant-mortality	1.1	1.3	1.8
Syrian Arab Republic	**Medium variant**	1.5	2.1	4.4
	High variant	1.5	2.0	4.0
	Low variant	1.5	2.1	4.9
	Constant-mortality	1.5	1.9	3.3
Tunisia	**Medium variant**	3.1	4.3	8.8
	High variant	3.1	4.2	7.9
	Low variant	3.1	4.5	9.8
	Constant-mortality	3.1	3.9	6.6
United Arab Emirates	**Medium variant**	0.2	0.7	5.8
	High variant	0.2	0.7	5.4
	Low variant	0.2	0.7	6.3
	Constant-mortality	0.2	0.7	4.5
Yemen	**Medium variant**	0.8	1.0	1.5

	High variant	0.8	1.0	1.4
	Low variant	0.8	1.0	1.7
	Constant-mortality	0.8	1.0	1.4
Arab Region	**Medium variant**	1.5	2.0	4.0
	High variant	1.5	1.9	3.6
	Low variant	1.5	2.1	4.5
	Constant-mortality	1.5	1.9	3.2

Annex 7

Life expectancy at birth (both sexes, in years)

Region, Subregion or Country	1960	1970	1980	1990	2000	2010	2015	2020	2030	2050
World	50.3	56.8	61.2	64.1	66.4	69.9	71.4	72.4	74.3	77.3
More Developed Regions	68.6	70.7	72.4	74.1	75.2	77.7	78.9	79.7	81.3	84.2
Less Developed Regions	45.1	53.2	58.5	61.9	64.6	68.2	69.7	70.9	72.8	76.1
Least Developed Regions	39.8	43.8	47.3	51.1	55.1	61.2	63.6	65.3	68.1	72.6
High-Income Countries	68.0	70.4	73.1	75.4	77.7	79.9	80.8	81.6	83.1	85.7
Middle-Income Countries	46.9	54.9	60.0	63.3	65.8	69.1	70.5	71.6	73.5	76.7
Low-Income Countries	38.5	42.8	46.6	49.1	52.1	58.9	61.7	63.7	66.9	71.6
Algeria	46.1	50.5	58.3	66.5	70.3	74.6	75.8	76.9	78.9	82.3
Bahrain	51.9	63.2	69.4	72.4	74.4	76.0	76.8	77.4	78.8	81.4
Comoros	41.5	45.7	50.7	56.6	59.4	61.9	63.4	64.5	66.3	69.1
Djibouti	44.1	49.1	53.6	56.6	57.2	60.3	62.1	63.2	65.0	68.0
Egypt	47.8	52.3	58.3	64.5	68.5	70.4	71.3	72.2	73.8	76.7
Iraq	47.9	57.9	60.4	65.9	69.0	68.6	69.7	70.5	72.0	74.7
Jordan	52.6	60.1	66.1	69.8	71.7	73.4	74.2	74.9	76.3	79.0
Kuwait	60.1	65.9	69.5	72.0	73.1	74.0	74.6	75.2	76.3	78.8

Lebanon	63.2	66.0	68.0	70.3	74.4	78.3	79.4	80.3	82.0	85.2
Libya	42.9	55.9	64.0	68.4	70.5	71.6	71.9	72.6	74.1	76.8
Mauritania	43.5	49.1	54.2	58.3	60.1	62.0	63.0	63.8	65.1	67.4
Morocco	48.5	52.6	57.7	64.6	68.8	73.9	75.5	76.7	78.9	82.6
Oman	42.6	50.4	59.7	67.1	72.1	75.6	76.8	77.9	80.1	83.8
Qatar	61.1	68.2	72.6	74.9	76.3	77.3	78.0	78.8	80.3	83.3
Saudi Arabia	45.7	52.9	62.9	68.9	72.3	73.6	74.4	75.2	76.6	79.6
Somalia	37.0	40.9	44.6	45.7	50.6	54.0	55.9	57.9	61.5	66.8
State of Palestine	49.5	55.8	62.7	68.0	70.7	72.4	73.3	74.2	75.8	78.7
Sudan	48.2	52.1	54.2	55.6	58.5	62.5	64.2	65.3	67.3	70.5
Syrian Arab Republic	52.0	58.8	65.7	70.5	73.1	72.2	70.6	73.7	78.3	81.0
Tunisia	42.2	51.2	61.8	68.7	73.1	74.8	75.6	76.5	78.3	81.6
United Arab Emirates	52.2	61.6	67.6	71.5	74.2	76.3	77.1	77.9	79.4	82.5
Yemen	34.7	41.2	50.6	57.7	60.4	63.5	64.7	65.7	67.5	70.4
Arab Region	**46.8**	**52.5**	**58.5**	**64.2**	**67.6**	**70.0**	**71.0**	**72.0**	**73.7**	**76.4**
Source: ESCWA calculations based on DESA, *World Population Prospects* (2017), Medium Variant.										

Annex 8

Life expectancy at birth (males and females, in years)

Country	1970		1980		1990		2000		2010		2020		2030		2040		2050	
Sex	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Algeria	49.6	51.3	57.1	59.5	65.0	68.1	68.9	71.8	73.4	75.8	75.7	78.2	77.6	80.1	79.5	81.7	81.4	83.3
Bahrain	61.3	65.8	68.2	71.2	71.4	73.6	73.6	75.4	75.3	77.1	76.6	78.6	77.9	79.9	79.3	81.2	80.7	82.4
Comoros	44.1	47.3	49.1	52.3	55.0	58.1	57.9	61.0	60.3	63.5	62.7	66.3	64.4	68.3	65.6	70.0	66.8	71.6
Djibouti	47.7	50.5	52.1	55.2	55.0	58.2	55.6	58.7	58.8	61.9	61.5	64.9	63.1	66.9	64.4	68.7	65.7	70.4
Egypt	50.5	54.0	56.2	60.5	62.2	66.9	66.1	70.9	68.2	72.6	69.9	74.6	71.4	76.3	72.8	77.8	74.3	79.3
Iraq	58.1	57.7	57.2	64.2	62.4	69.5	66.7	71.4	66.0	71.3	68.2	72.9	69.5	74.6	70.7	76.1	72.0	77.5
Jordan	59.2	61.2	64.8	67.6	68.5	71.3	70.4	73.3	71.9	75.1	73.2	76.7	74.5	78.2	75.9	79.5	77.4	80.8
Kuwait	64.8	67.7	68.5	71.1	71.3	73.3	72.4	74.3	73.2	75.1	74.2	76.6	75.2	77.9	76.4	79.1	77.6	80.3
Lebanon	64.3	67.9	66.3	69.8	68.8	71.9	72.8	76.1	76.7	80.3	78.7	82.0	80.7	83.5	82.6	84.8	84.4	86.2
Libya	54.3	57.6	62.3	66.0	66.9	70.3	68.9	72.4	69.2	74.4	69.8	75.6	71.1	77.1	72.6	78.4	74.0	79.7
Mauritania	48.1	50.2	52.9	55.6	57.0	59.6	58.5	61.6	60.5	63.5	62.2	65.4	63.4	67.0	64.3	68.3	65.2	69.6
Morocco	51.6	53.6	56.4	58.9	63.0	66.2	67.2	70.3	72.5	75.2	75.5	77.9	77.6	80.1	79.6	81.8	81.6	83.5
Oman	49.2	51.6	58.0	61.3	65.3	69.1	70.3	74.4	73.8	78.1	76.3	80.3	78.5	82.2	80.7	83.7	82.9	85.3
Qatar	67.0	69.8	71.7	73.7	74.1	76.1	75.3	77.7	76.4	79.0	78.0	80.5	79.7	81.8	81.3	83.1	83.0	84.3
Saudi Arabia	51.0	54.9	61.1	64.8	67.4	70.9	70.8	74.2	72.3	75.2	73.9	77.0	75.4	78.6	76.9	80.0	78.4	81.3

Somalia	39.4	42.5	43.1	46.2	44.2	47.2	49.1	52.3	52.5	55.7	56.2	59.7	59.7	63.4	62.1	66.3	64.5	69.1
Palestine	54.0	57.7	61.0	64.4	66.4	69.5	69.1	72.4	70.7	74.3	72.2	76.2	73.7	77.9	75.3	79.3	76.8	80.7
Sudan	50.7	53.6	52.8	55.7	54.1	57.1	56.7	60.3	60.9	64.2	63.6	67.0	65.4	69.2	66.8	71.1	68.2	72.9
Syria	57.5	60.2	64.5	67.0	69.0	72.0	71.0	75.2	68.2	76.8	69.5	78.4	76.1	80.3	77.5	81.7	79.0	83.1
Tunisia	50.1	52.3	60.6	63.1	66.7	70.9	70.8	75.7	72.7	77.1	74.5	78.6	76.3	80.3	78.2	81.7	80.0	83.0
UAE	59.8	63.9	66.4	69.6	70.6	73.0	73.4	75.6	75.6	77.8	77.2	79.4	78.7	80.8	80.3	82.2	81.9	83.5
Yemen	39.9	42.6	49.0	52.0	56.1	59.1	59.1	61.9	62.1	64.9	64.2	67.3	65.7	69.3	67.0	70.9	68.2	72.6
Arab Region	**51.3**	**53.8**	**56.8**	**60.3**	**62.3**	**66.2**	**65.8**	**69.6**	**68.2**	**72.0**	**70.1**	**74.0**	**71.8**	**75.7**	**73.1**	**77.1**	**74.4**	**78.5**

Source: ESCWA calculations based on DESA *World Population Prospects* (2017), Medium Variant.

Annex 9

Life expectancy at age 60 (both sexes, in years)

Region, subregion or country	1970	1980	1990	2000	2010	2015	2020	2030	2050
World	16.3	17.2	18.0	18.8	20.0	20.5	20.9	21.7	23.1
More developed regions	18.0	19.0	19.9	20.7	22.5	23.2	23.7	24.8	26.8
Less developed regions	14.9	16.0	16.7	17.7	18.7	19.2	19.7	20.6	22.2
Least developed countries	13.6	14.3	15.0	16.0	17.1	17.6	18.0	18.7	20.3
High-income countries	18.0	19.2	20.5	22.0	23.6	24.2	24.8	25.8	27.8
Middle-income countries	15.3	16.3	16.9	17.6	18.7	19.2	19.6	20.5	22.2
Low-income countries	13.6	14.4	15.0	15.5	16.6	17.1	17.4	18.1	19.5
Algeria	14.7	15.8	17.2	18.9	21.2	21.8	22.3	23.2	25.1
Bahrain	15.3	16.3	17.4	18.3	19.2	19.7	20.2	21.1	23.3
Comoros	13.8	14.5	15.3	15.7	16.0	16.3	16.5	16.8	17.4
Djibouti	15.1	15.8	16.4	16.7	17.3	17.6	17.7	17.9	18.3
Egypt	16.5	16.8	17.0	17.1	17.2	17.4	17.8	18.8	20.6
Iraq	15.5	16.2	17.3	17.7	17.3	17.6	17.8	18.3	19.7
Jordan	15.7	16.7	17.5	18.1	18.8	19.2	19.6	20.4	22.2
Kuwait	15.9	16.3	16.6	17.0	17.5	17.8	18.2	19.0	21.0

Lebanon	16.7	17.0	17.6	19.2	21.6	22.4	23.0	24.3	26.9
Libya	14.9	16.2	17.1	17.6	18.2	18.4	18.7	19.4	20.9
Mauritania	14.1	15.0	15.7	16.0	16.4	16.5	16.6	16.8	17.3
Morocco	15.0	15.7	16.8	17.6	19.8	20.4	21.0	22.1	24.8
Oman	14.3	15.5	17.0	18.5	20.2	21.0	21.7	23.2	25.9
Qatar	17.9	18.9	19.5	19.8	20.3	20.9	21.4	22.6	25.0
Saudi Arabia	15.2	16.5	17.4	18.0	18.2	18.6	19.1	20.0	22.2
Somalia	13.6	14.4	14.6	15.5	16.0	16.2	16.4	16.7	17.2
State of Palestine	15.1	16.2	17.1	17.8	18.4	18.7	19.1	20.0	21.9
Sudan	15.6	16.0	16.3	16.8	17.5	17.8	17.9	18.0	18.4
Syrian Arab Republic	15.8	16.8	17.8	18.8	19.3	19.3	20.0	21.6	23.6
Tunisia	14.4	15.9	17.5	18.9	19.6	20.0	20.6	21.7	24.0
United Arab Emirates	15.5	16.4	17.5	18.5	19.6	20.1	20.6	21.8	24.3
Yemen	13.7	14.9	15.7	15.9	16.2	16.3	16.5	16.8	17.5
Arab Region	**15.5**	**16.2**	**16.9**	**17.6**	**18.5**	**18.9**	**19.3**	**20.2**	**22.0**

Source: ESCWA calculations based on DESA *World Population Prospects* (2017), Medium Variant

Annex 10

Number of migrants by age group in Arab countries (in thousands), 1990-2017

Year	Country of destination	Both Sexes					Males					Females				
		0-14	15-24	25-59	60+	Total	0-14	15-24	25-59	60+	Total	0-14	15-24	25-59	60+	Total
1990	Algeria	51399	42595	145217	34743	273954	29110	23344	77795	19985	150234	22289	19251	67422	14758	123720
1995	Algeria	47737	38960	141494	33841	262032	25682	20756	80951	16307	143696	22055	18204	60543	17534	118336
2000	Algeria	44087	35339	137752	32932	250110	23757	18852	78655	15894	137158	20330	16487	59097	17038	112952
2005	Algeria	33527	26302	111053	26540	197422	18100	14053	63282	12831	108266	15427	12249	47771	13709	89156
2010	Algeria	35314	26990	124838	29822	216964	18397	13897	68655	13778	114727	16917	13093	56183	16044	102237
2015	Algeria	38194	29078	140584	31617	239473	19813	14900	77192	14617	126522	18381	14178	63392	17000	112951
2017	Algeria	42181	23807	139810	42826	248624	21988	12255	76947	20002	131192	20193	11552	62863	22824	117432
1990	Bahrain	26972	19147	125418	1675	173212	13952	11472	96145	1161	122730	13020	7675	29273	514	50482
1995	Bahrain	37455	22113	139020	7391	205979	19076	12615	107565	4971	144227	18379	9498	31455	2420	61752
2000	Bahrain	42812	34530	147450	14569	239361	21877	19701	114065	9701	165344	20935	14829	33385	4868	74017
2005	Bahrain	48922	46934	298293	9869	404018	25198	27749	228950	6717	288614	23724	19185	69343	3152	115404
2010	Bahrain	65835	69700	514988	7333	657856	33802	44452	392602	5049	475905	32033	25248	122386	2284	181951
2015	Bahrain	87349	60771	531398	24619	704137	47338	37877	406724	17027	508966	40011	22894	124674	7592	195171
2017	Bahrain	90357	67297	534986	30009	722649	49215	42080	410352	20700	522347	41142	25217	124634	9309	200302
1990	Comoros	2497	2396	8395	791	14079	1045	1093	4163	416	6717	1452	1303	4232	375	7362
1995	Comoros	2424	2379	8330	806	13939	1031	1070	4091	422	6614	1393	1309	4239	384	7325
2000	Comoros	2356	2366	8276	801	13799	1016	1047	4021	427	6511	1340	1319	4255	374	7288
2005	Comoros	1681	2083	8232	1213	13209	734	926	3992	634	6286	947	1157	4240	579	6923
2010	Comoros	1489	1860	8012	1257	12618	663	840	3897	660	6060	826	1020	4115	597	6558

2015	Comoros	1466	1891	7922	1276	12555	663	861	3869	678	6071	803	1030	4053	598	6484
2017	Comoros	1394	1774	7978	1409	12555	629	806	3891	745	6071	765	968	4087	664	6484
1990	Djibouti	24406	37556	55339	4920	122221	14387	17605	29359	2891	64242	10019	19951	25980	2029	57979
1995	Djibouti	18764	26882	49664	4464	99774	11020	12456	26398	2602	52476	7744	14426	23266	1862	47298
2000	Djibouti	17608	22870	55037	4992	100507	10298	10433	29303	2886	52920	7310	12437	25734	2106	47587
2005	Djibouti	16837	20938	49300	5016	92091	10149	10432	27743	2991	51315	6688	10506	21557	2025	40776
2010	Djibouti	19343	23078	53156	5998	101575	10907	10818	28232	3338	53295	8436	12260	24924	2660	48280
2015	Djibouti	20790	24479	60191	6891	112351	11944	11567	31724	3846	59081	8846	12912	28467	3045	53270
2017	Djibouti	18628	23067	66269	8125	116089	10742	10855	34922	4506	61025	7886	12212	31347	3619	55064
1990	Egypt	56234	39241	66651	11582	173708	27547	21488	37627	5266	91928	28687	17753	29024	6316	81780
1995	Egypt	43919	37542	73961	11533	166955	21503	20691	40768	5583	88545	22416	16851	33193	5950	78410
2000	Egypt	26490	38456	95856	12650	173452	13298	21724	50378	6805	92205	13192	16732	45478	5845	81247
2005	Egypt	42098	61109	150696	20098	274001	22947	38294	85415	11621	158277	19151	22815	65281	8477	115724
2010	Egypt	41734	39685	187842	26453	295714	22211	24319	104629	14912	166071	19523	15366	83213	11541	129643
2015	Egypt	71833	91345	358236	44517	565931	38079	55948	198604	25193	317824	33754	35397	159632	19324	248107
2017	Egypt	60222	69386	307270	41432	478310	30478	41119	163581	22483	257661	29744	28267	143689	18949	220649
1990	Iraq	17763	21758	39580	4537	83638	11074	14064	27882	2731	55751	6689	7694	11698	1806	27887
1995	Iraq	33921	51497	103829	10213	199460	17397	28082	64283	5059	114821	16524	23415	39546	5154	84639
2000	Iraq	30709	54131	115320	10365	210525	15592	29179	70612	5081	120464	15117	24952	44708	5284	90061
2005	Iraq	19387	34175	72804	6549	132915	10660	19902	46880	3441	80883	8727	14273	25924	3108	52032

2010	Iraq	17121	30182	64296	5790	117389	9315	18504	42028	3118	72965	7806	11678	22268	2672	44424
2015	Iraq	34891	70111	231321	23058	359381	18418	40536	140032	10247	209233	16473	29575	91289	12811	150148
2017	Iraq	32435	61196	245442	27495	366568	17130	35415	148655	12218	213418	15305	25781	96787	15277	153150
1990	Jordan	453312	209087	408943	75007	1146349	231536	107083	209731	38123	586473	221776	102004	199212	36884	559876
1995	Jordan	605084	264420	567022	100571	1537097	304883	134132	294976	50734	784725	300201	130288	272046	49837	752372
2000	Jordan	756965	320389	724358	126133	1927845	378346	161798	379488	63345	982977	378619	158591	344870	62788	944868
2005	Jordan	913068	386460	873736	152150	2325414	458837	194069	454398	76341	1183645	454231	192391	419338	75809	1141769
2010	Jordan	1069171	452531	1023114	178167	2722983	539172	226449	529321	89371	1384313	529999	226082	493793	88796	1338670
2015	Jordan	1242101	464294	1168770	236861	3112026	620738	230269	598321	117849	1567177	621363	234025	570449	119012	1544849
2017	Jordan	1299086	493830	1179512	261125	3233553	649303	244921	604216	129937	1628377	649783	248909	575296	131188	1605176
1990	Kuwait	399295	182439	463620	29037	1074391	207788	99518	328883	18689	654878	191507	82921	134737	10348	419513
1995	Kuwait	287048	151639	453925	29342	921954	154995	87869	329324	19264	591452	132053	63770	124601	10078	330502
2000	Kuwait	280324	179789	629970	37557	1127640	161781	112185	462141	25405	761512	118543	67604	167829	12152	366128
2005	Kuwait	311621	207906	773588	40212	1333327	182393	132560	575392	28235	918580	129228	75346	198196	11977	414747
2010	Kuwait	420193	288072	1113531	49741	1871537	274519	198842	797398	39055	1309814	145674	89230	316133	10686	561723
2015	Kuwait	424374	277955	2065900	97907	2866136	251508	164349	1397717	74646	1888220	172866	113606	668183	23261	977916
2017	Kuwait	497737	331899	2177751	116044	3123431	381638	222150	1427509	91995	2123292	116099	109749	750242	24049	1000139
1990	Lebanon	181804	110173	203490	28226	523693	92514	56638	105138	13632	267922	89290	53535	98352	14594	255771
1995	Lebanon	208600	110335	256422	32946	608303	105800	56548	132432	15833	310613	102800	53787	123990	17113	297690
2000	Lebanon	235364	110274	309605	37670	692913	119073	56369	159830	18033	353305	116291	53905	149775	19637	339608

2005	Lebanon	257057	120437	338142	41148	756784	128701	63233	178264	20133	390331	128356	57204	159878	21015	366453
2010	Lebanon	296982	108609	364362	50702	820655	154230	57047	191468	24613	427358	142752	51562	172894	26089	393297
2015	Lebanon	764816	303673	794965	109750	1973204	364573	144917	387990	50945	948425	400243	158756	406975	58805	1024779
2017	Lebanon	696752	307919	811212	123329	1939212	332234	146951	395982	57282	932449	364518	160968	415230	66047	1006763
1990	Libya	92489	102121	245792	16673	457075	30373	39061	164520	8753	242707	62116	63060	81272	7920	214368
1995	Libya	102172	103601	281123	21145	508041	41876	46609	200228	12193	300906	60296	56992	80895	8952	207135
2000	Libya	113541	106655	321236	26004	567436	55525	55178	241842	16405	368950	58016	51477	79394	9599	198486
2005	Libya	117950	111538	363590	32134	625212	67946	67665	287726	22260	445597	50004	43873	75864	9874	179615
2010	Libya	129038	122025	397773	35162	683998	75393	75704	314115	24525	489737	53645	46321	83658	10637	194261
2015	Libya	145477	137571	448450	39648	771146	84335	84714	351602	28502	549153	61142	52857	96848	11146	221993
2017	Libya	153142	122155	461218	51904	788419	87947	74455	362143	36909	561454	65195	47700	99075	14995	226965
1990	Mauritania	34434	24381	49177	3658	111650	16855	11394	27680	1640	57569	17579	12987	21497	2018	54081
1995	Mauritania	28190	16297	42018	3057	89562	13448	7729	24295	1543	47015	14742	8568	17723	1514	42547
2000	Mauritania	18072	9376	27705	2213	57366	8835	4577	16518	1233	31163	9237	4799	11187	980	26203
2005	Mauritania	18010	9155	28371	2583	58119	9022	4626	17389	1551	32588	8988	4529	10982	1032	25531
2010	Mauritania	30381	15562	34736	4000	84679	16417	8999	21006	2183	48605	13964	6563	13730	1817	36074
2015	Mauritania	62601	32137	63802	8012	166552	33296	18348	38127	4299	94070	29305	13789	25675	3713	72482
2017	Mauritania	53509	30856	75203	8870	168438	28230	17502	44665	4739	95136	25279	13354	30538	4131	73302
1990	Morocco	11335	8109	26543	8908	54895	6379	4627	14128	3890	29024	4956	3482	12415	5018	25871
1995	Morocco	10152	7214	24975	8019	50360	5548	4100	13153	3463	26264	4604	3114	11822	4556	24096

2000	Morocco	10541	7329	26735	8429	53034	5594	4115	13913	3611	27233	4947	3214	12822	4818	25801
2005	Morocco	10807	7514	27410	8648	54379	5584	4116	14144	3699	27543	5223	3398	13266	4949	26836
2010	Morocco	12644	9741	38109	10415	70909	6471	5168	19593	4506	35738	6173	4573	18516	5909	35171
2015	Morocco	15942	12855	51579	12048	92424	8076	6629	26396	5286	46387	7866	6226	25183	6762	46037
2017	Morocco	16726	12459	53980	12670	95835	8476	6427	27634	5562	48099	8250	6032	26346	7108	47736
1990	Oman	35336	25616	240944	2104	304000	18527	18571	203961	1418	242477	16809	7045	36983	686	61523
1995	Oman	62729	45473	427705	3736	539643	29341	31479	354248	2376	417444	33388	13994	73457	1360	122199
2000	Oman	76599	55869	482015	9125	623608	46087	36959	398547	6796	488389	30512	18910	83468	2329	135219
2005	Oman	76796	57257	522483	9624	666160	45579	37891	437130	7242	527842	31217	19366	85353	2382	138318
2010	Oman	81143	96585	626010	12483	816221	49499	78307	521598	9342	658746	31644	18278	104412	3141	157475
2015	Oman	90979	144274	1554004	25334	1814591	46685	115129	1318740	20068	1500622	44294	29145	235264	5266	313969
2017	Oman	93371	177087	1772306	30528	2073292	49405	147256	1519948	24717	1741326	43966	29831	252358	5811	331966
1990	Qatar	70950	37973	196098	4732	309753	39823	25118	157867	3124	225932	31127	12855	38231	1608	83821
1995	Qatar	84087	45108	225857	6621	361673	52007	31038	182095	4832	269972	32080	14070	43762	1789	91701
2000	Qatar	49360	47372	258011	4954	359697	30116	29605	210871	3650	274242	19244	17767	47140	1304	85455
2005	Qatar	117326	88928	428105	11667	646026	79194	64563	345641	9030	498428	38132	24365	82464	2637	147598
2010	Qatar	140645	206268	1092737	16763	1456413	87926	162012	943912	12721	1206571	52719	44256	148825	4042	249842
2015	Qatar	204107	207474	1259544	16515	1687640	156809	172877	1072409	14266	1416361	47298	34597	187135	2249	271279
2017	Qatar	210956	214937	1249747	45752	1721392	164476	172649	1070729	36834	1444688	46480	42288	179018	8918	276704
1990	Saudi Arabia	1094888	562577	3276209	64771	4998445	492571	337674	2455837	38791	3324873	602317	224903	820372	25980	1673572

1995	Saudi Arabia	1046859	604459	3391343	80041	5122702	485119	353081	2527470	50815	3416485	561740	251378	863873	29226	1706217
2000	Saudi Arabia	1051095	563868	3557796	90628	5263387	496273	317848	2644888	58759	3517768	554822	246020	912908	31869	1745619
2005	Saudi Arabia	1256050	793492	4334430	117847	6501819	633337	473231	3283608	79629	4469805	622713	320261	1050822	38218	2032014
2010	Saudi Arabia	1651432	830256	5787414	160854	8429956	883959	490633	4447474	111215	5933281	767473	339623	1339940	49639	2496675
2015	Saudi Arabia	1937051	1082058	7542625	209632	10771366	992308	617538	5709912	141744	7461502	944743	464520	1832713	67888	3309864
2017	Saudi Arabia	2191322	1224096	8532719	237147	12185284	1094198	684651	6404405	158310	8341564	1097124	539445	2128314	78837	3843720
1990	Somalia	200677	75233	189913	12471	478294	95727	32500	108924	7050	244201	104950	42733	80989	5421	234093
1995	Somalia	8111	3070	7816	530	19527	4003	1383	4595	301	10282	4108	1687	3221	229	9245
2000	Somalia	6432	3173	9726	756	20087	3115	1403	5685	419	10622	3317	1770	4041	337	9465
2005	Somalia	6541	3138	10167	824	20670	3196	1441	5944	466	11047	3345	1697	4223	358	9623
2010	Somalia	7528	3525	11972	970	23995	3697	1667	6989	561	12914	3831	1858	4983	409	11081
2015	Somalia	13197	6008	20481	1892	41578	6282	2772	11753	1097	21904	6915	3236	8728	795	19674
2017	Somalia	13523	6623	22195	2527	44868	6380	3031	12680	1458	23549	7143	3592	9515	1069	21319
1990	State of Palestine	72382	61194	112168	42588	288332	37353	29036	45699	20013	132101	35029	32158	66469	22575	156231
1995	State of Palestine	92337	58341	82054	49035	281767	47602	27589	32383	20754	128328	44735	30752	49671	28281	153439
2000	State of Palestine	63026	64636	103237	44303	275202	32817	31065	42108	18565	124555	30209	33571	61129	25738	150647
2005	State of Palestine	33897	81934	100854	49932	266617	17384	41365	40418	20454	119621	16513	40569	60436	29478	146996

2010	State of Palestine	32188	69965	109013	46866	258032	16542	34767	44440	18939	114688	15646	35198	64573	27927	143344
2015	State of Palestine	27389	64014	120360	43744	255507	14153	31578	50104	17402	113237	13236	32436	70256	26342	142270
2017	State of Palestine	22232	55336	135818	40349	253735	11605	27540	57055	16252	112452	10627	27796	78763	24097	141283
1990	Sudan	536136	255598	490018	121144	1402896	270374	124674	239192	62145	696385	265762	130924	250826	58999	706511
1995	Sudan	394274	190740	365969	102413	1053396	199255	94093	179630	52723	525701	195019	96647	186339	49690	527695
2000	Sudan	285275	150481	280804	85323	801883	144812	75166	139057	44013	403048	140463	75315	141747	41310	398835
2005	Sudan	181174	104824	191745	64251	541994	92565	53321	96566	33463	275915	88609	51503	95179	30788	266079
2010	Sudan	183435	113719	210270	70939	578363	93795	58010	106171	36806	294782	89640	55709	104099	34133	283581
2015	Sudan	188943	122284	235122	77529	623878	96009	61354	116788	39377	313528	92934	60930	118334	38152	310350
2017	Sudan	189508	140617	323604	82092	735821	96088	70370	160319	41605	368382	93420	70247	163285	40487	367439
1990	Syrian Arab Republic	105850	83156	518700	6434	714140	53446	40060	267658	2913	364077	52404	43096	251042	3521	350063
1995	Syrian Arab Republic	129722	73010	616424	11454	830610	64857	34853	318297	5108	423115	64865	38157	298127	6346	407495
2000	Syrian Arab Republic	133524	65186	615257	18306	832273	66704	31466	320224	8239	426633	66820	33720	295033	10067	405640
2005	Syrian Arab Republic	141586	68469	636125	30230	876410	70622	33289	331740	13819	449470	70964	35180	304385	16411	426940
2010	Syrian Arab Republic	259712	234390	1264288	26725	1785115	130221	115104	654032	12399	911756	129491	119286	610256	14326	873359

2015	Syrian Arab Republic	145515	126991	698733	22701	993940	72926	62681	361448	10605	507660	72589	64310	337285	12096	486280
2017	Syrian Arab Republic	148971	120575	706237	38035	1013818	74670	59530	365845	17768	517813	74301	61045	340392	20267	496005
1990	Tunisia	6188	6036	22359	3401	37984	3115	3147	11089	1549	18900	3073	2889	11270	1852	19084
1995	Tunisia	5831	5505	22693	3838	37867	2975	2906	11384	1780	19045	2856	2599	11309	2058	18822
2000	Tunisia	5374	4945	22648	3479	36446	2773	2638	11477	1635	18523	2601	2307	11171	1844	17923
2005	Tunisia	4979	4542	21849	3670	35040	2606	2443	11199	1752	18000	2373	2099	10650	1918	17040
2010	Tunisia	6192	5784	27234	3962	43172	3249	3110	13979	1898	22236	2943	2674	13255	2064	20936
2015	Tunisia	7872	7058	35069	6702	56701	4171	3799	18143	3238	29351	3701	3259	16926	3464	27350
2017	Tunisia	8107	6774	35086	7696	57663	4301	3652	18172	3724	29849	3806	3122	16914	3972	27814
1990	United Arab Emirates	262851	186798	844867	12058	1306574	139583	121489	663173	7801	932046	123268	65309	181694	4257	374528
1995	United Arab Emirates	366969	260790	1179521	16838	1824118	198625	171599	928702	11026	1309952	168344	89191	250819	5812	514166
2000	United Arab Emirates	416571	348923	1659204	21977	2446675	220994	224669	1296657	14824	1757144	195577	124254	362547	7153	689531
2005	United Arab Emirates	487058	454568	2311184	28226	3281036	261315	292453	1814883	19627	2388278	225743	162115	496301	8599	892758
2010	United Arab Emirates	820502	985098	5443181	67830	7316611	352642	652045	4411343	47485	5463515	467860	333053	1031838	20345	1853096
2015	United Arab Emirates	958473	806091	6107232	123330	7995126	476215	543909	4859712	90474	5970310	482258	262182	1247520	32856	2024816

2017	United Arab Emirates	1040155	893654	6241978	136737	8312524	547913	620159	4936792	102460	6207324	492242	273495	1305186	34277	2105200
1990	Yemen	47100	22966	44900	3897	118863	23124	13612	28469	1805	67010	23976	9354	16431	2092	51853
1995	Yemen	48919	22949	58296	6351	136515	24153	13655	37035	2989	77832	24766	9294	21261	3362	58683
2000	Yemen	41844	30096	66177	5378	143495	22277	16791	37810	2797	79675	19567	13305	28367	2581	63820
2005	Yemen	47825	26765	87380	9103	171073	26318	15383	51746	4932	98379	21507	11382	35634	4171	72694
2010	Yemen	73095	38982	153429	20331	285837	37959	20985	85925	9841	154710	35136	17997	67504	10490	131127
2015	Yemen	96939	50789	202834	29337	379899	48703	26523	110529	13644	199399	48236	24266	92305	15693	180500
2017	Yemen	101688	47509	202661	32463	384321	51161	24823	110631	15105	201720	50527	22686	92030	17358	182601

Source: ESCWA calculations based on United Nations, Department of Economic and Social Affairs. Population Division (2017). Trends in International Migrant Stock: The 2017 revision (United Nations database, POP/DB/MIG/Stock/Rev.2017).

Annex 11

Net number of migrants (both sexes, in thousands)

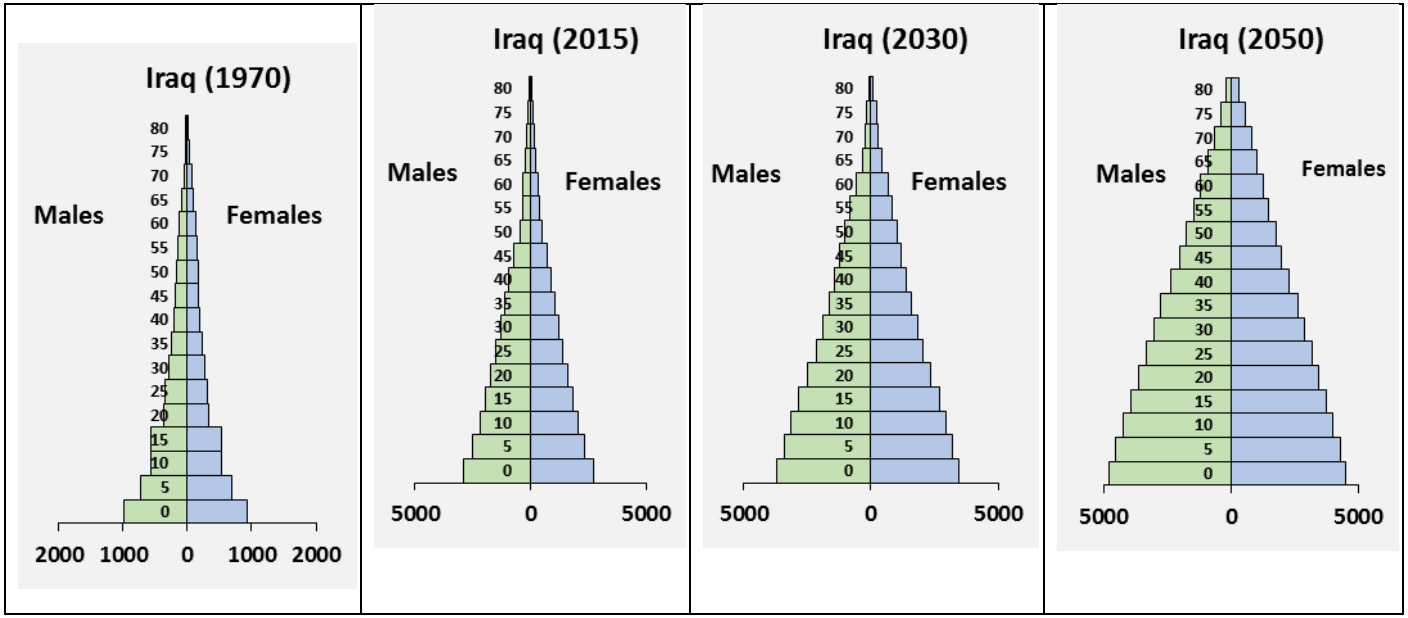
Region, Subregion or Country	1970	1980	1990	2000	2010	2015	2020	2030	2050
More developed regions	5120.9	6269.9	9148.6	14529.9	13790.4	11560.5	11629.9	11718.7	11428.0
Less developed regions	-5120.9	-6269.9	-9148.6	-14529.9	-13790.4	-11560.5	-11629.9	-11718.7	-11428.0
Least developed countries	-2812.7	-4965.3	-1258.9	-3976.3	-7650.3	-5548.7	-4714.4	-4278.4	-4149.5
High-income countries	6138.8	7210.0	10070.1	16360.9	19152.8	15257.3	13611.4	12957.6	12412.0
Middle-income countries	-5403.1	-3115.2	-9054.6	-14984.2	-16538.0	-13079.9	-11464.2	-10749.7	-10247.8
Low-income countries	-681.1	-4104.3	-1042.4	-1446.3	-2586.0	-2167.1	-2164.8	-2231.5	-2187.9
Algeria	-184.6	-152.9	-111.0	-184.8	-250.3	-96.6	-50.0	-50.0	-48.8
Bahrain	5.5	26.1	9.2	97.3	157.0	138.5	155.0	47.5	19.5
Comoros	-5.5	2.8	-3.8	-8.0	-10.0	-10.0	-10.0	-10.0	-9.8
Djibouti	30.0	50.6	22.5	0.5	2.3	5.3	4.5	4.5	4.4
Egypt	-393.2	-476.7	-336.3	-142.7	-279.3	-275.0	-275.0	-225.0	-219.4
Iraq	-7.7	-123.9	-392.1	-142.1	3.2	251.4	-6.5	-56.2	-29.3
Jordan	112.3	0.4	291.5	-122.0	812.6	487.6	-300.0	-295.0	-19.5
Kuwait	121.2	128.2	-267.6	134.3	574.8	385.0	85.0	65.0	43.9
Lebanon	-40.0	-242.2	-69.0	260.3	716.7	550.0	-425.0	-310.0	-19.5

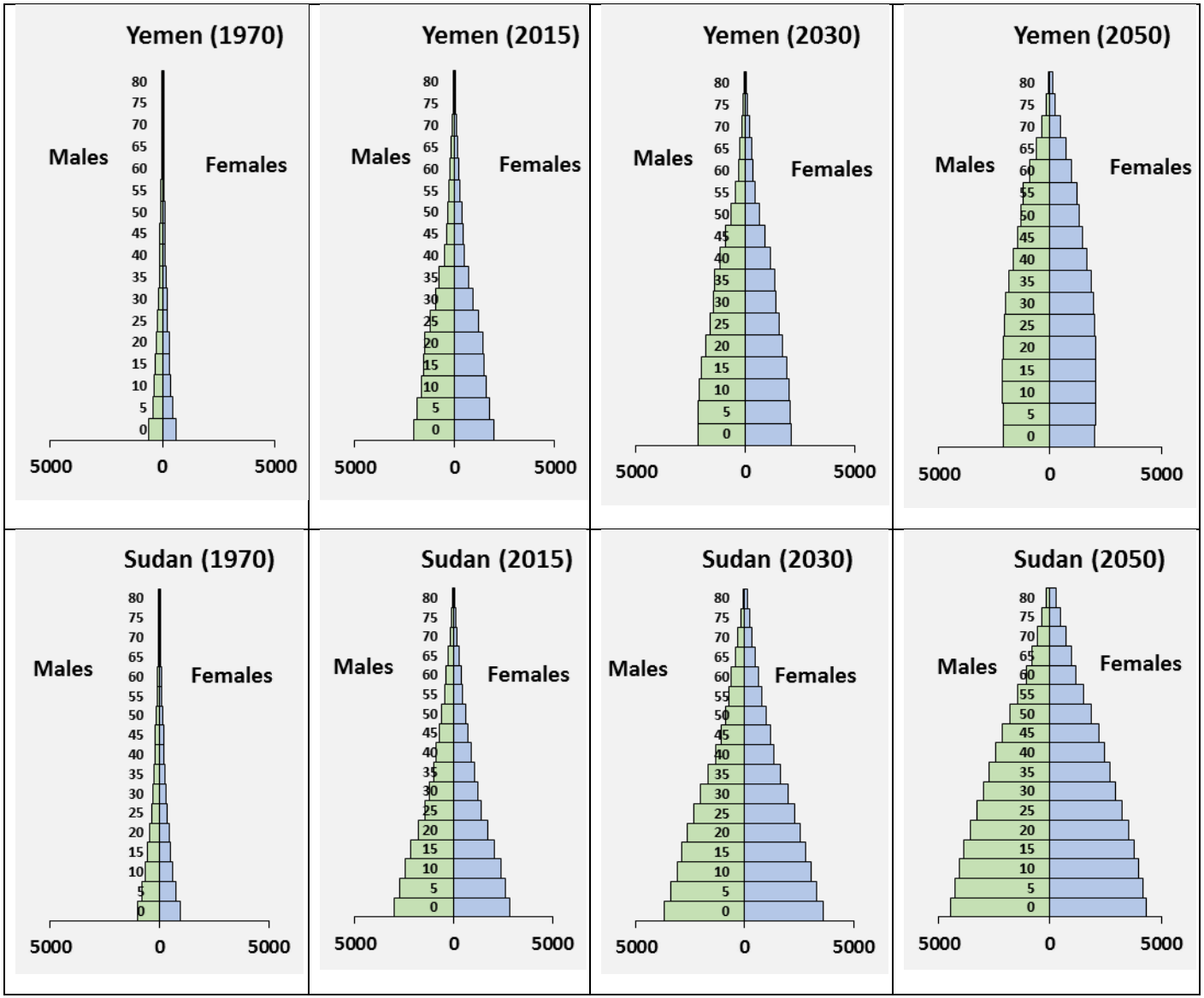
Libya	53.3	85.5	4.7	-39.0	-276.0	-221.7	-10.0	-10.0	-9.7
Mauritania	-4.4	-12.9	-30.1	10.0	25.0	32.8	22.9	15.3	14.9
Morocco	-487.7	-307.0	-442.6	-607.1	-436.1	-282.1	-257.1	-257.1	-250.7
Oman	10.2	79.0	57.9	-89.2	542.3	711.3	357.5	30.0	19.5
Qatar	27.7	65.2	23.7	121.7	721.7	401.0	165.0	95.0	58.5
Saudi Arabia	339.4	1106.5	310.0	190.0	1292.5	1090.0	445.0	300.0	195.0
Somalia	1.0	734.7	-603.0	-142.4	-206.6	-213.3	-174.8	-149.8	-146.1
St. of Palestine	-157.9	-72.6	-2.2	-60.0	-66.9	-38.3	-28.9	-25.0	-24.4
Sudan	10.0	200.0	401.7	-589.5	-833.8	-419.7	-150.0	-50.0	-48.8
Syria	-48.8	-124.3	-108.3	-255.0	-1893.9	-2698.9	770.0	715.0	-48.7
Tunisia	-96.8	6.8	94.7	-87.9	-49.5	-43.0	-20.0	-20.0	-19.5
UAE	159.5	286.0	314.7	822.7	1905.5	390.5	295.5	275.0	243.8
Yemen	-299.3	-62.5	282.5	-106.1	-70.4	-112.5	-150.0	-135.0	-97.5
Arab Region	**-855.7**	**1196.8**	**-552.7**	**-938.9**	**2380.7**	**32.1**	**443.1**	**-45.8**	**-392.1**

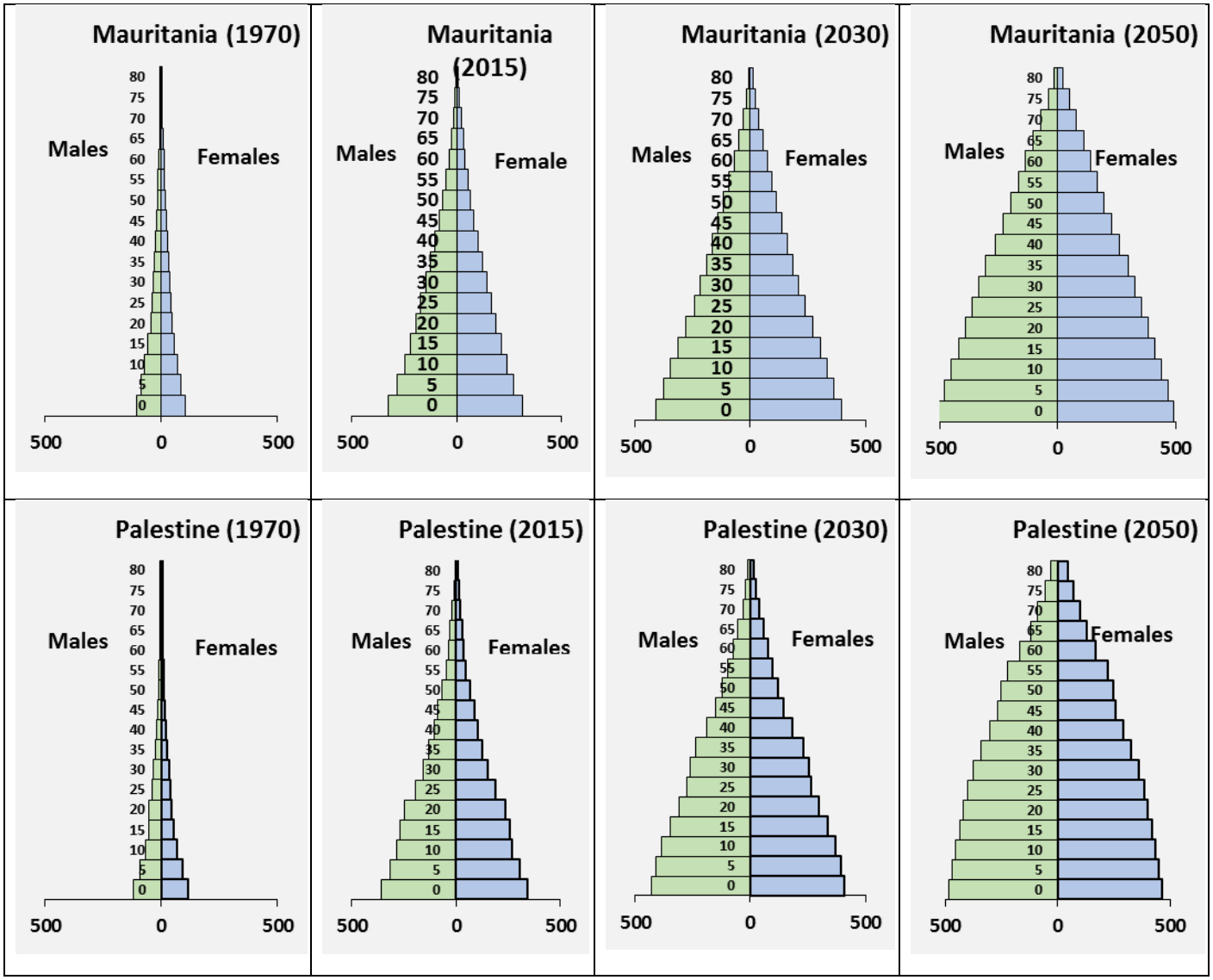
Source: ESCWA calculations based on DESA *World Population Prospects* (2017), Medium Variant

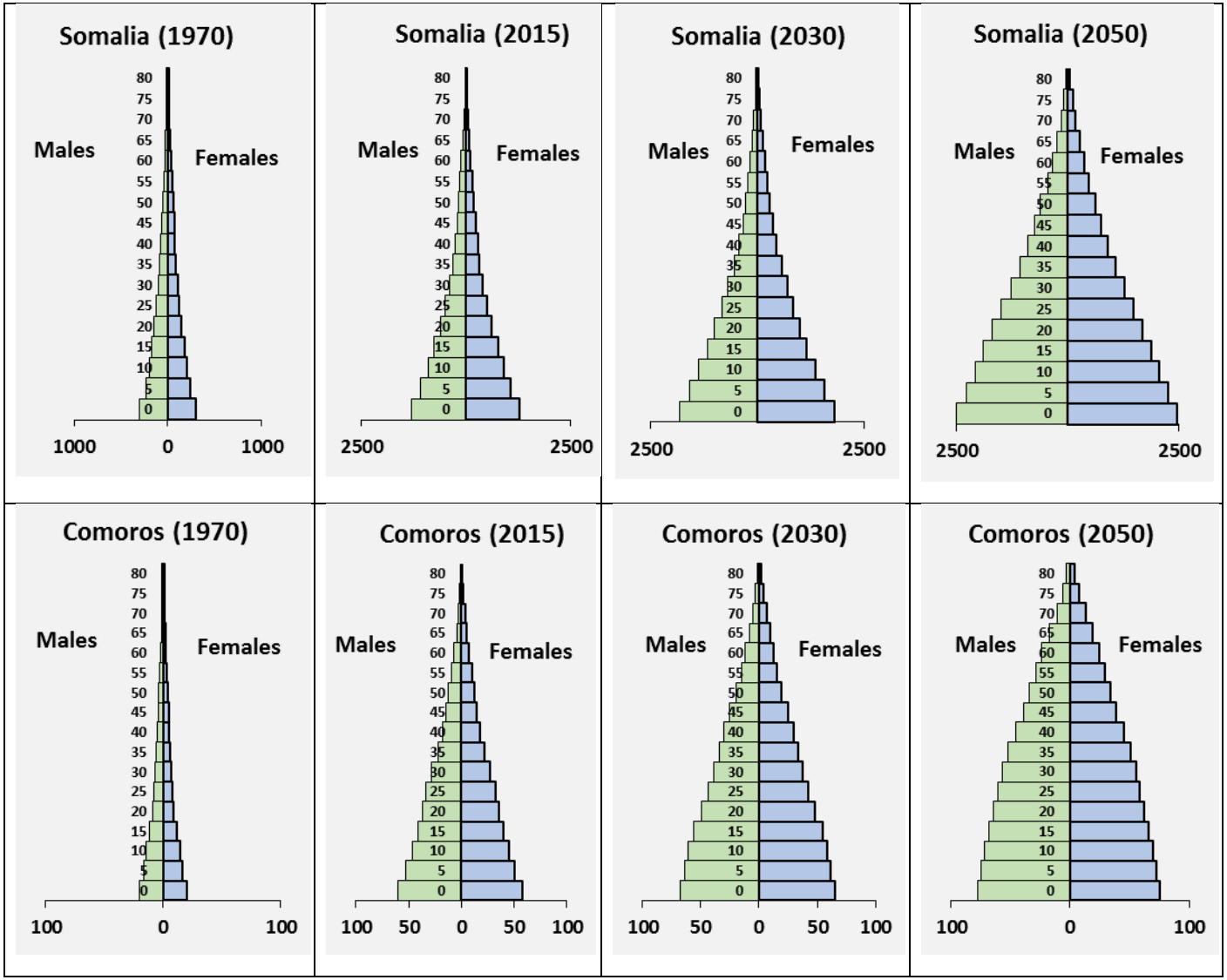
Annex 12

Age pyramids of select youthful countries in the Arab region: 1970, 2015, 2030 and 2050




Yemen (1970)
Yemen (2015)
Yemen (2030)
Yemen (2050)
Sudan (1970)
Sudan (2015)
Sudan (2030)
Sudan (2050)
Males
Females
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
0
5000
0
5000


Mauritania (1970)
Males
Females
80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0
500 0 500
Mauritania (2015)
Males
Female
80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0
500 0 500
Mauritania (2030)
Males
Females
80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0
500 0 500
Mauritania (2050)
Males
Females
80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0
500 0 500
Palestine (1970)
Males
Females
80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0
500 0 500
Palestine (2015)
Males
Females
80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0
500 0 500
Palestine (2030)
Males
Females
80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0
500 0 500
Palestine (2050)
Males
Females
80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0
500 0 500


Somalia (1970)
Males
Females
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
0
1000
0
1000
Somalia (2015)
Males
Females
2500
2500
Somalia (2030)
Males
Females
2500
2500
Somalia (2050)
Males
Females
2500
2500
Comoros (1970)
Males
Females
100
0
100
Comoros (2015)
Males
Females
100
50
0
50
100
Comoros (2030)
Males
Females
100
50
0
50
100
Comoros (2050)
Males
Females
100
0
100

Annex 13

Population size by age group (both sexes, in thousands)

Country	1970				2015				2030				2050			
	0-14	15-24	25-59	60+	0-14	15-24	25-59	60+	0-14	15-24	25-59	60+	0-14	15-24	25-59	60+
Algeria	6818	2688	4215	829	11424	6615	18268	3564	12049	8423	21872	6478	11444	7195	25576	13222
Bahrain	95	38	71	9	286	181	849	57	336	245	1247	185	313	247	1362	405
Comoros	103	40	76	12	312	154	274	37	378	209	410	64	440	260	630	133
Djibouti	72	30	51	6	297	191	383	57	300	193	537	103	271	194	640	203
Egypt	14717	6569	11449	2311	31075	16343	39134	7226	35282	21817	50817	11831	39047	23637	67061	23689
Iraq	4424	1784	3060	650	14685	7103	12515	1812	19800	10331	19994	3172	26385	14724	32927	7454
Jordan	791	310	533	85	3300	1758	3596	506	3317	2064	4771	970	3387	2197	6426	2178
Kuwait	329	136	260	22	822	447	2506	160	929	651	2707	588	964	646	2876	1158
Lebanon	963	422	739	173	1404	1140	2637	671	1013	603	2731	1022	746	622	2356	1688
Libya	987	354	690	103	1783	1080	2969	402	1651	1212	3673	806	1475	999	3801	1848
Mauritania	529	210	361	50	1683	811	1482	206	2221	1170	2308	377	2843	1615	3718	789
Morocco	7614	2666	4871	849	9626	6045	15668	3464	9549	6370	18519	6435	8503	5774	20406	10977
Oman	335	134	217	38	931	617	2490	161	1116	813	3547	422	997	701	3686	1373
Qatar	40	23	44	3	343	363	1718	58	427	376	2151	278	428	360	2296	689

Saudi Arabia	2581	1072	1868	316	8204	4881	16819	1653	8656	5465	21003	4356	7567	5255	21911	10323
Somalia	1491	645	1127	181	6490	2767	4049	602	9513	4313	6747	962	13666	7138	13166	1883
State of Palestine	556	208	312	49	1871	1014	1566	211	2391	1291	2634	423	2763	1675	4245	1022
Sudan	4760	1916	3116	490	16034	7772	12764	2078	20122	10834	20343	3544	25287	14713	33685	6700
Syrian Arab Republic	3053	1193	1783	321	7136	3712	6695	1192	7488	5099	11536	2486	7456	5084	16021	5461
Tunisia	2302	892	1577	290	2671	1753	5534	1316	2753	1862	5953	2273	2470	1617	6122	3675
United Arab Emirates	83	48	100	5	1262	934	6779	179	1336	1290	7532	896	1583	1200	7920	2461
Yemen	2772	1198	1921	304	10920	5917	8866	1213	12551	7392	14951	1921	12368	8291	22887	4758
Arab region	**55413**	**22575**	**38440**	**7095**	**132562**	**71598**	**167560**	**26826**	**153179**	**92023**	**225980**	**49594**	**170404**	**104144**	**299715**	**102087**

Source: DESA, *World Population Prospects* (2017), Medium Variant.

Annex 14

Population growth rate

Table A14.I Annual growth rate of population aged 60 years and above (in %), 1970 - 2015

Country	1970-2015	1970-1980	1980-1990	1990-2000	2000-2010	2010-2015
Algeria	**3.2**	2.1	2.8	3.9	3.5	4.7
Bahrain	**4.2**	4.3	3.2	3.2	5.5	5.0
Comoros	**2.5**	3.1	2.3	2.3	1.9	3.3
Djibouti	**4.9**	7.7	5.7	3.2	3.6	3.0
Egypt	**2.5**	2.6	2.9	2.2	2.3	2.6
Iraq	**2.3**	2.6	1.4	2.3	1.8	4.3
Jordan	**4.0**	2.8	4.2	3.9	4.4	5.2
Kuwait	**4.4**	4.5	3.0	2.6	5.2	8.9
Lebanon	**3.0**	1.0	2.7	3.0	4.3	5.3
Libya	**3.0**	3.4	4.2	3.3	1.8	1.8
Mauritania	**3.2**	3.8	3.3	2.8	2.7	3.4
Morocco	**3.1**	1.9	4.6	3.1	2.3	4.3
Oman	**3.2**	2.6	2.7	3.4	2.7	6.2
Qatar	**6.2**	5.2	6.1	4.8	6.2	11.6
Saudi Arabia	**3.7**	3.7	4.3	2.7	2.9	5.9
Somalia	**2.7**	5.9	0.5	1.1	2.9	3.1
State of Palestine	**3.3**	0.8	3.0	5.2	3.8	3.6
Sudan	**3.2**	3.1	3.2	3.4	3.0	3.4
Syria	**2.9**	2.4	3.6	2.9	3.1	2.1
Tunisia	**3.4**	2.8	4.7	4.2	1.7	3.5
United Arab Emirates	**7.7**	13.2	5.6	4.1	8.6	6.8

Yemen	**3.1**	1.8	2.5	5.0	2.9	3.2
Arab region	**3.0**	2.6	3.2	2.9	2.8	3.5
Source: ESCWA calculations based on DESA, *World Population Prospects* (2017), medium variant.						

Table A14.II Prospective annual growth rate of population aged 60 years and above (in %), 2015-2050

Country	2015-2050	2015-2020	2020-2030	2030-2040	2040-2050
Algeria	**3.7**	2.5	3.9	3.8	3.4
Bahrain	**5.6**	9.0	7.1	5.3	2.5
Comoros	**3.7**	2.9	3.7	3.5	3.7
Djibouti	**3.6**	2.7	3.9	3.5	3.3
Egypt	**3.4**	2.1	3.3	3.5	3.5
Iraq	**4.0**	1.4	4.3	4.8	3.8
Jordan	**4.2**	2.5	4.5	4.6	3.5
Kuwait	**5.7**	9.8	8.0	5.0	1.8
Lebanon	**2.6**	1.3	2.6	2.2	2.8
Libya	**4.4**	1.7	5.4	5.4	2.9
Mauritania	**3.8**	3.0	4.1	3.9	3.4
Morocco	**3.3**	3.4	3.8	2.8	2.5
Oman	**6.1**	4.9	6.6	6.4	5.4
Qatar	**7.1**	10.7	10.1	5.5	3.6
Saudi Arabia	**5.2**	5.0	6.8	5.6	3.0
Somalia	**3.3**	2.2	3.1	3.1	3.6
State of Palestine	**4.5**	2.7	5.0	4.5	4.3
Sudan	**3.3**	2.4	3.6	3.3	3.1
Syria	**4.3**	2.4	5.5	4.2	3.7
Tunisia	**2.9**	2.3	3.6	2.5	2.3

United Arab Emirates	**7.5**	11.2	10.5	6.7	3.4
Yemen	**3.9**	2.2	3.0	4.0	5.1
Arab region	**3.8**	2.7	4.2	4.0	3.3
Source: ESCWA calculations from the United Nations World Population Prospects (2017), Medium Variant.					

Annex 15

Sex ratio at age 60 and above (males per 100 females), 1970 – 2050

Country	1970	1980	1990	2000	2010	2015	2020	2030	2040	2050
Algeria	90	85	88	94	94	98	99	96	95	95
Bahrain	118	128	116	103	124	128	136	134	151	140
Comoros	82	81	81	83	86	87	87	88	87	87
Djibouti	84	83	85	88	89	88	90	93	91	90
Egypt	77	78	79	80	81	84	85	85	86	86
Iraq	90	92	90	88	86	84	81	79	82	83
Jordan	99	101	100	103	94	93	90	94	96	94
Kuwait	108	119	145	137	140	170	174	141	122	104
Lebanon	92	90	98	93	105	98	99	115	109	96
Libya	107	101	102	100	92	89	86	86	87	83
Mauritania	90	84	82	79	76	80	84	88	90	91
Morocco	86	86	86	81	87	90	92	91	85	86
Oman	92	84	73	99	122	107	121	168	178	170
Qatar	106	139	193	200	216	278	317	340	321	214
Saudi Arabia	90	92	100	105	114	131	148	166	144	124
Somalia	83	95	90	90	95	97	97	91	86	83
State of Palestine	100	89	82	89	95	92	90	88	88	89
Sudan	88	89	89	89	89	89	89	88	85	84
Syrian Arab Republic	103	94	95	89	95	87	83	83	83	84
Tunisia	99	106	97	100	88	87	87	85	82	83
United Arab Emirates	118	144	141	163	257	236	254	249	193	145
Yemen	81	77	74	94	91	90	88	82	87	87
Arab Region	**86**	**86**	**87**	**88**	**90**	**92**	**94**	**97**	**96**	**93**

Source: ESCWA calculations based on DESA, *World Population Prospects* (2017), Medium Variant.

Annex 16

Total dependency ratio (in %)

Country	1970	1980	1990	2000	2010	2015	2020	2030	2040	2050
Algeria	101.5	98.9	87.7	62.9	48.5	52.7	57.6	51.4	49.1	58.5
Bahrain	89.8	57.8	53.5	48.4	28.9	30.2	26.4	28.8	33.2	36.1
Comoros	90.9	92.3	96.4	88.7	78.6	75.5	72.8	65.2	59.0	55.9
Djibouti	91.6	95.4	90.8	78.5	62.6	56.5	51.8	47.9	44.9	44.5
Egypt	86.0	82.9	83.5	70.8	58.4	61.8	62.6	56.3	53.8	56.3
Iraq	94.6	103.8	98.7	86.6	81.8	77.7	76.2	68.7	65.3	62.7
Jordan	97.1	109.1	95.9	74.0	68.5	66.1	62.2	54.4	52.9	53.5
Kuwait	84.9	72.3	56.8	42.8	33.7	29.8	32.1	34.6	42.3	48.7
Lebanon	88.5	80.0	66.8	55.6	47.3	47.3	44.7	48.7	52.3	59.0
Libya	97.1	102.6	81.4	60.2	48.4	49.1	46.8	40.8	44.1	53.3
Mauritania	94.2	93.1	91.8	86.2	79.5	76.5	73.9	67.8	62.9	59.8
Morocco	104.2	87.2	77.3	63.4	53.0	51.6	52.3	52.9	52.8	57.9
Oman	97.9	91.6	90.6	65.4	39.6	32.4	31.1	30.5	30.9	39.9
Qatar	61.5	54.4	42.0	37.8	16.5	17.5	18.7	21.7	27.1	31.6
Saudi Arabia	91.1	87.2	81.2	70.1	48.7	40.9	39.0	39.9	42.3	50.3
Somalia	86.8	88.5	89.0	99.2	101.2	97.4	95.3	88.7	79.4	70.7
State of Palestine	109.5	108.8	102.8	100.4	82.2	75.8	72.5	65.2	58.3	55.1
Sudan	97.2	100.1	93.9	88.2	86.2	81.6	76.8	69.1	64.0	58.8
Syria	105.8	108.0	100.4	79.7	66.2	72.8	64.2	52.6	49.9	50.4
Tunisia	96.0	83.9	72.6	56.9	44.5	45.6	49.2	51.2	51.5	60.2
UAE	57.4	41.7	47.3	37.1	16.5	17.4	18.0	19.8	27.7	34.7
Yemen	91.6	109.8	119.1	105.9	82.4	76.8	71.9	60.0	50.1	46.1
Arab Region	**94.5**	**92.3**	**87.5**	**74.7**	**62.7**	**62.0**	**61.3**	**56.6**	**54.5**	**56.2**

Source: DESA, *World Population Prospects* (2017)

Notes: 1) Total Dependency Ratio= (Age 0-14 + Age 65+) / (Age 15-64).

2) De facto population as of 1 July of the year indicated.

Annex 17

Child dependency ratio (in %)

Country	1970	1980	1990	2000	2010	2015	2020	2030	2040	2050
Algeria	94.4	92.0	81.3	55.8	40.4	43.8	46.8	37.4	30.5	31.6
Bahrain	85.0	54.6	50.2	44.7	26.2	27.1	23.1	21.5	20.5	18.3
Comoros	85.2	86.1	90.3	83.0	73.3	70.5	67.4	58.8	51.8	47.0
Djibouti	87.0	90.8	85.9	73.1	56.6	50.1	45.1	39.2	33.8	29.9
Egypt	78.1	74.8	75.3	62.4	50.8	53.6	53.9	46.1	41.4	39.8
Iraq	86.8	95.5	91.1	80.2	75.8	72.3	70.3	62.7	57.2	52.7
Jordan	90.7	102.4	89.7	68.6	62.4	59.8	55.9	46.1	40.3	36.6
Kuwait	81.4	69.5	54.7	40.5	31.0	27.1	28.2	25.7	24.4	25.4
Lebanon	79.0	70.3	56.9	44.6	34.9	35.3	31.3	28.0	25.1	21.9
Libya	91.2	97.0	75.7	54.2	42.2	42.6	40.0	31.7	27.6	27.8
Mauritania	89.4	87.6	85.8	80.3	73.9	71.0	68.3	61.3	55.3	50.7
Morocco	97.2	81.0	70.4	54.8	43.6	41.9	40.7	35.7	31.0	29.4
Oman	91.6	86.4	86.2	61.4	35.9	29.4	27.9	24.7	20.3	20.6
Qatar	58.3	52.0	40.2	35.4	15.2	16.3	16.6	16.1	15.1	14.9
Saudi Arabia	84.5	81.5	76.1	65.0	44.3	36.6	33.7	30.7	25.7	25.2
Somalia	80.9	82.5	83.4	93.9	95.9	92.1	89.9	83.4	74.0	65.1
State of Palestine	103.6	104.1	98.5	95.8	77.3	70.5	67.0	58.6	49.8	44.2
Sudan	91.3	94.2	88.3	82.5	80.1	75.4	70.3	62.1	56.1	49.9
Syria	98.9	101.8	94.3	73.7	60.4	65.8	56.2	42.9	37.4	33.0
Tunisia	89.2	76.8	64.2	46.3	33.7	34.5	36.0	32.4	27.4	28.5
UAE	55.2	39.7	45.6	35.6	15.6	16.2	16.4	14.5	15.5	16.2
Yemen	85.7	103.9	113.7	100.1	77.4	71.7	66.7	54.5	44.1	37.4
Arab Region	**87.4**	**85.5**	**80.8**	**67.8**	**56.0**	**55.1**	**53.6**	**46.9**	**42.0**	**39.6**

Source: The United Nations World Population Prospects (2017)
Notes: 1) Child Dependency Ratio (Age 0-14 / Age 15-64) *2) De facto population as of 1 July of the year indicated.*