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# **World Population Prospects The 2012 Revision**

Volume I: Comprehensive Tables



United Nations  
New York, 2013

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**Department of Economic and Social Affairs**  
Population Division

# **World Population Prospects**

## **The 2012 Revision**

Volume I: Comprehensive Tables



United Nations  
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# I. WORLD POPULATION TRENDS

## A. POPULATION SIZE AND GROWTH

In 2013 the world population reached 7.2 billion with 5.9 billion (or 82.5 per cent of the world's total) living in the less developed regions (table I.1). Out of these, 898 million reside in the 49 least developed countries and account for 12.5 per cent of the world population. More developed countries, whose total population amounts to 1.25 billion inhabitants, account for 17.5 per cent of the world population (table I.2).

According to the medium variant, the world population is projected to reach 9.6 billion persons by 2050, that is, 2.4 billion more than in 2013, an increase slightly under the combined populations of China and India today. Most of this growth is projected to come from developing countries. Between 2013 and 2050, the population of the more developed regions will remain largely unchanged at around 1.3 billion inhabitants, but the population of the less developed regions is projected to rise from 5.9 billion in 2013 to 8.3 billion in 2050. At the same time, the population of the least developed countries is projected to double, from 902 million inhabitants in 2013 to 1.8 billion in 2050. Consequently, by 2050, 86.4 per cent of the world population is expected to live in the less developed regions, including 19.0 per cent in the least developed countries, whereas only 13.6 per cent will live in the more developed regions.

According to the medium variant, the world population is projected to reach 10.9 billion persons by 2100, that is, 3.7 billion more than in 2013 and 1.3 billion more than in 2050. During the second part of the 21<sup>st</sup> century, the growth of the world population will continue to occur mainly in the less developed regions. The population of the more developed regions will remain relatively stable at 1.3 billion, but the population of the less developed regions is projected to rise from 8.3 billion in 2050 to 9.6 billion in 2100. The population growth in the less developed regions will predominantly occur in the least developed countries whose population is projected to increase by almost 1.1 billion between 2050 and 2100. By 2100, 88.2 per cent of the world population is expected to live in the less developed regions, including 27 per cent in the least developed countries; only 11.8 per cent will live in the more developed regions.

Contrasting population trends across major areas, it worth noting that Asia's population is expected to continue to grow during 2013-2050 while its population should decline in the second half of the century; yet, in Africa, the population is expected to grow by 1.8 billion during the second half of the century, substantially more than during the earlier period of 2013-2050, that is by 1.3 billion. During 2050-2100, Africa's population increase will surpass that of the world.

The world population in 2050 would be substantially higher if the decline in fertility projected in the medium variant fails to be realized. If fertility were to remain constant at current levels in all countries, world population would increase significantly, reaching 11.1 billion by 2050. In the high variant, where fertility is assumed to remain mostly half a child higher than in the medium variant, the world population in 2050 would reach 10.9 billion persons. In the low variant, where fertility is projected to be half a child lower than in the medium variant, world population would still grow, but only to reach 8.3 billion by 2050. According to the low variant, the population of the least developed countries would nearly double, to reach 1.6 billion by 2050, but the population of the more developed regions would decline to 1.15 billion.

TABLE I.1. POPULATION OF THE WORLD, DEVELOPMENT GROUPS AND MAJOR AREAS, 1950, 1980, 2013, 2050 AND 2100, ACCORDING TO DIFFERENT VARIANTS

Development group or major area	Population (millions)				Population in 2050 (millions)				Population in 2100 (millions)			
	1950	1980	2013	2013	Low	Medium	High	Constant-fertility	Low	Medium	High	Constant-fertility
World.....	2 526	4 449	7 162	8 342	9 551	10 868	11 089	11 089	6 750	10 854	16 641	28 646
More developed regions.....	813	1 083	1 253	1 149	1 303	1 470	1 268	1 268	801	1 284	1 960	1 152
Less developed regions.....	1 713	3 366	5 909	7 193	8 248	9 398	9 821	9 821	5 949	9 570	14 682	27 494
Least developed countries.....	195	393	898	1 594	1 811	2 043	2 552	2 552	1 944	2 928	4 266	13 590
Other less developed countries.....	1 518	2 973	5 011	5 599	6 437	7 355	7 269	7 269	4 005	6 642	10 416	13 904
Africa.....	229	478	1 111	2 119	2 393	2 686	3 210	3 210	2 826	4 185	6 007	17 221
Asia.....	1 396	2 634	4 299	4 482	5 164	5 912	5 805	5 805	2 739	4 712	7 558	8 971
Europe.....	549	695	742	622	709	804	673	673	383	639	1 005	508
Latin America and the Caribbean.....	168	364	617	674	782	902	885	885	420	736	1 215	1 298
Northern America.....	172	255	355	395	446	500	453	453	335	513	754	535
Oceania.....	13	23	38	50	57	64	62	62	46	70	102	114

Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat (2013). *World Population Prospects: The 2012 Revision*. New York: United Nations.

TABLE I.2. PERCENTAGE DISTRIBUTION OF THE WORLD POPULATION BY DEVELOPMENT GROUP AND MAJOR AREA, ESTIMATES AND PROJECTIONS ACCORDING TO DIFFERENT VARIANTS, 1950-2100

Development group or major area	1950				2013				2050				2100			
	1950	1980	2013	2013	Low	Medium	High	Constant-fertility	Low	Medium	High	Constant-fertility	Low	Medium	High	Constant-fertility
World.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
More developed regions.....	32.2	24.3	17.5	17.5	13.8	13.6	13.5	11.4	11.9	11.8	11.8	11.8	11.9	11.8	11.8	4.0
Less developed regions.....	67.8	75.7	82.5	82.5	86.2	86.4	86.5	88.6	88.1	88.2	88.2	88.2	88.1	88.2	88.2	96.0
Least developed countries.....	7.7	8.8	12.5	12.5	19.1	19.0	18.8	23.0	28.8	27.0	25.6	28.8	28.8	27.0	25.6	47.4
Other less developed countries.....	60.1	66.8	70.0	70.0	67.1	67.4	67.7	65.6	59.3	61.2	62.6	65.6	59.3	61.2	62.6	48.5
Africa.....	9.1	10.8	15.5	15.5	25.4	25.1	24.7	29.0	41.9	38.6	36.1	29.0	41.9	38.6	36.1	60.1
Asia.....	55.3	59.2	60.0	60.0	53.7	54.1	54.4	52.3	40.6	43.4	45.4	52.3	40.6	43.4	45.4	31.3
Europe.....	21.7	15.6	10.4	10.4	7.5	7.4	7.4	6.1	5.7	5.9	6.0	6.1	5.7	5.9	6.0	1.8
Latin America and the Caribbean.....	6.6	8.2	8.6	8.6	8.1	8.2	8.3	8.0	6.2	6.8	7.3	8.0	6.2	6.8	7.3	4.5
Northern America.....	6.8	5.7	5.0	5.0	4.7	4.7	4.6	4.1	5.0	4.7	4.5	4.1	5.0	4.7	4.5	1.9
Oceania.....	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.7	0.6	0.6	0.4

Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat (2013). *World Population Prospects: The 2012 Revision*. New York: United Nations.

Most of the world population lives in a few countries. In 2013, 37 per cent of the world population lived in China and India. A further eight countries accounted for a further 22 per cent of the earth's inhabitants, namely, the United States of America, Indonesia, Brazil, Pakistan, Nigeria, Bangladesh, the Russian Federation and Japan, in order of population size (tables *S.1* and *S.3*). However, most countries of the world have small populations. Seventy-five per cent of the 233 countries or areas covered by the *2012 Revision* had populations with fewer than 20 million inhabitants in 2013 and, as a group, they account for 10 per cent of the world's population.

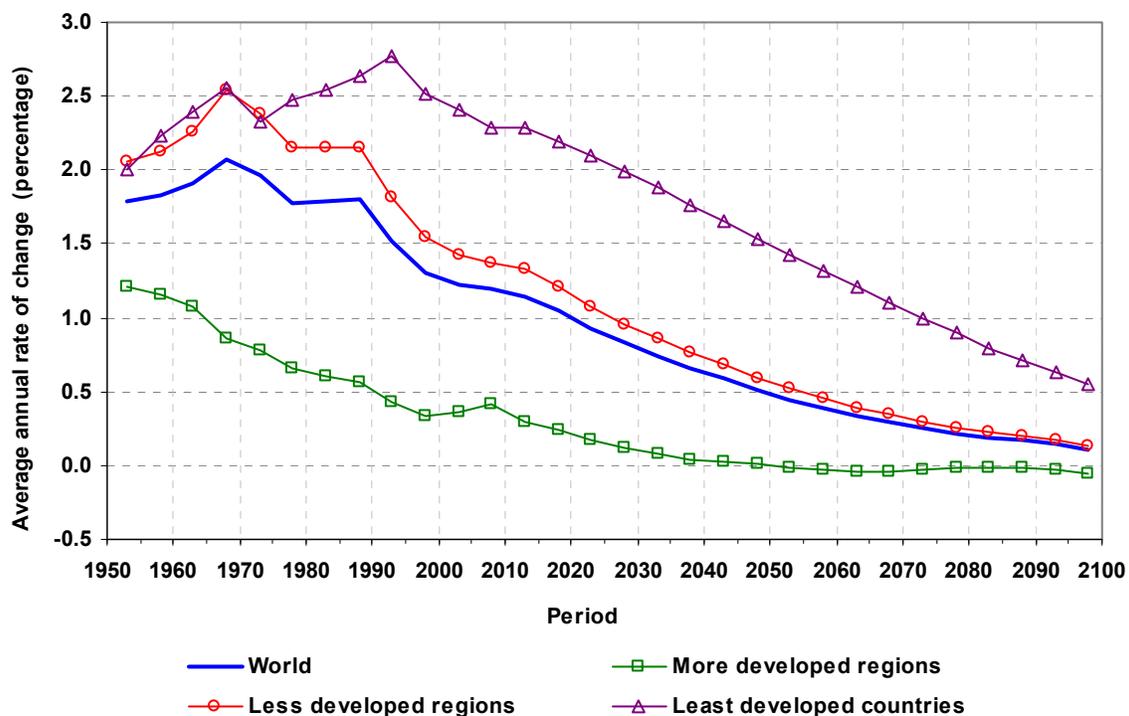
By 2028, the population of India is projected to surpass that of China and taken together the two countries will account then for about 35 per cent of the world population. By 2050, five least developed countries—Bangladesh, Ethiopia, the Democratic Republic of the Congo, the United Republic of Tanzania and Uganda—will be among the twenty most populous countries in the world. By 2100, among the twenty most populous countries in the world, eight will be least developed countries—the United Republic of Tanzania, the Democratic Republic of the Congo, Ethiopia, Uganda, Niger, Bangladesh, Sudan and Mozambique (tables *S.2* and *S.3*).

Increments in the world population are also largely concentrated in a few countries, generally the most populous. Thus, during 2005-2010, eight countries—India, China, Nigeria, Indonesia, Pakistan, the United States of America, Ethiopia, and Brazil, in order of population increment—accounted for just over half of the population increase at the world level (table *S.4*).

Over most of human history, the world population grew very slowly if at all. Growth rates began increasing slowly during the 17<sup>th</sup> or 18<sup>th</sup> centuries as mortality started to decline. With accelerating gains in longevity, the growth rate of the world population increased, especially during the 20<sup>th</sup> century, when it reached a peak at 2.07 per cent per year in 1965-1970 (figure I.1). Since then, the speed of population growth has been decelerating, largely as a result of falling fertility in the developing world. By 2005-2010, the population growth rate at the world level had reached 1.20 per cent per year and is projected to decline to 0.51 per cent per year by 2045-2050 and to 0.11 by 2095-2100. As shown in table *S.5*, several countries both in the more developed regions and the less developed regions are expected to experience declining populations between 2013 and 2050.

However, because fertility decline has not occurred simultaneously in all countries, the pace of population growth still differs considerably among development groups. Thus, whereas the population of the more developed regions rose at an annual rate of 0.42 per cent during 2005-2010, that of the less developed regions increased more than three times faster, at 1.37 per cent annually, and the least developed countries as a group have experienced even more rapid population growth, at 2.28 per cent per year. Such differences are expected to persist in the future. According to the medium variant, the population of the more developed regions will be nearly stagnating by 2045-2050, whereas the population of the less developed regions will still be rising at an annual rate of 0.60 per cent per year (figure I.1). More importantly, the population of the least developed countries will likely be increasing at a robust annual rate of 1.54 per cent. By the end of the 21<sup>st</sup> century, the population of the less developed regions will reach a relatively low annual rate of population growth, similar to that of the more developed regions in earlier years. Yet, the population growth rate of the least developed countries, albeit declining, will still amount to 0.55 per cent per year in 2095-2100. Average annual rates of population change are also presented in table I.3 for selected periods, depicting in addition the different levels of population change across variants within the projections.

**Figure I.1. Average annual rate of population change for the world and development groups, 1950-2100**



Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat (2013). *World Population Prospects: The 2012 Revision*. New York: United Nations.

TABLE I.3. AVERAGE ANNUAL RATE OF POPULATION CHANGE FOR THE WORLD, DEVELOPMENT GROUPS AND MAJOR AREAS, FOR SELECTED PERIODS AND DIFFERENT VARIANTS (PERCENTAGE)

Development group or major area	1950-2013	1950-1980	1980-2013	2013-2050			2050-2100				
				Low	Medium	High	Constant-fertility	Low	Medium	High	Constant-fertility
World.....	1.65	1.89	1.44	0.41	0.78	1.13	1.18	-0.69	0.26	1.11	2.20
More developed regions.....	0.69	0.96	0.44	-0.23	0.11	0.43	0.03	-0.97	-0.03	0.82	-0.25
Less developed regions.....	1.97	2.25	1.71	0.53	0.90	1.25	1.37	-0.65	0.30	1.15	2.41
Least developed countries.....	2.42	2.33	2.51	1.55	1.89	2.22	2.82	0.14	0.96	1.71	4.03
Other less developed countries.....	1.90	2.24	1.58	0.30	0.68	1.04	1.01	-0.95	0.06	0.96	1.54
Africa.....	2.51	2.46	2.55	1.75	2.07	2.39	2.87	0.33	1.12	1.84	3.95
Asia.....	1.79	2.12	1.48	0.11	0.50	0.86	0.81	-1.27	-0.18	0.76	1.10
Europe.....	0.48	0.78	0.20	-0.48	-0.12	0.22	-0.26	-1.23	-0.21	0.70	-0.67
Latin America and the Caribbean.....	2.07	2.58	1.60	0.24	0.64	1.03	0.98	-1.24	-0.12	0.88	1.01
Northern America.....	1.16	1.32	1.01	0.29	0.62	0.93	0.66	-0.57	0.28	1.05	0.36
Oceania.....	1.76	1.98	1.55	0.74	1.07	1.38	1.31	-0.42	0.41	1.17	1.39

Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat (2013). *World Population Prospects: The 2012 Revision*. New York: United Nations.

## B. POPULATION AGE COMPOSITION

The primary demographic consequence of fertility decline, especially if combined with increases in life expectancy, is population ageing, a process whereby the proportion of older persons in the population increases and that of younger persons declines. In 1950, just 8 per cent of the world population was aged 60 years or over. By 2013 that proportion had risen to 12 per cent and it is expected to reach 21 per cent in 2050 (table I.4; see table S.6 for figures at the country level). Globally, the number of older persons (aged 60 years or over) will increase by a factor of 2.4, passing from 841 million in 2013 to more than 2 billion in 2050. In contrast, the number of children (persons under age 15) is projected to hardly increase over the next 37 years, passing from 1.88 billion in 2013 to 2.03 billion in 2050 and their share of the total population will drop from 26 per cent in 2013 to 21 per cent in 2050. During the second half of the 21<sup>st</sup> century, the number of older persons (aged 60 years or over) will increase by close to a billion, to reach almost 3 billion in 2100, and the number of children will decrease by 90 million, to reach 1.94 billion in 2100.

Increases in the median age, the age at which half the population is older and half is younger than that age, are indicative of population ageing (table I.5). In 2013, 30 countries or areas, almost all of them developed countries, had a median age higher than 40 years. Japan led the group with a median age of 45.9 years, followed closely by Germany, with median age of 45.5 years, and Italy, with median age of 44.3 years (tables S.7 and S.8). In contrast, the median ages of Niger, Uganda and Chad in 2013 were below 16 years, making their populations the youngest on the planet.

By 2050, close to 100 countries are expected to have a median age above 40 years, more than half of which will be countries located in the developing world. That is, population ageing, which is already pervasive in developed countries, is expected to be common in the developing world of the future and is projected to occur more rapidly in developing countries than it did in their developed counterparts. In 2100, it is anticipated that 158 countries will have a median age above 40 years, more than two thirds of which will be located in the developing world.

Despite the general trend toward population ageing, countries that still have relatively high fertility will have a younger population than the rest in 2050 (table I.5). Many least developed countries are in this group. In 2050, 24 countries are projected to have median ages below 25 years; among those, 20 are least developed countries. The youngest populations on Earth are expected to be in Niger, Mali, Zambia, and Somalia, in increasing order according to the value of their respective median ages (tables I.5 and S.7). Because the least developed countries are expected to continue having some of the highest fertility levels on Earth after 2050, several of these countries will remain with the youngest populations in 2100. By that date, the median ages of the populations of Zambia, Niger, Mali, Somalia, and several other countries are expected to be below 35 years.

TABLE I.4. DISTRIBUTION OF THE POPULATION OF THE WORLD, DEVELOPMENT GROUPS AND MAJOR AREAS BY BROAD AGE GROUPS, 2013, 2050 AND 2100 (MEDIUM VARIANT)

Development group or major area	Population in 2013 (millions)						Population in 2050 (millions)						Population in 2100 (millions)					
	0-14	15-24	25-59	60+	80+	Total	0-14	15-24	25-59	60+	80+	Total	0-14	15-24	25-59	60+	80+	Total
World	1 878	1 205	3 238	841	120	7 162	2 034	1 312	4 184	2 020	392	9 551	1 944	1 325	4 600	2 984	830	10 854
More developed regions	206	152	608	287	57	1 253	210	142	533	417	124	1 303	202	138	504	440	164	1 284
Less developed regions	1 672	1 053	2 630	554	63	5 909	1 825	1 169	3 651	1 603	268	8 248	1 743	1 187	4 096	2 544	666	9 570
Least developed countries	360	180	311	49	5	898	545	319	763	183	21	1 811	618	411	1 299	600	121	2 928
Other less developed countries	1 313	874	2 319	505	59	5 011	1 279	850	2 888	1 420	247	6 437	1 125	777	2 797	1 944	545	6 642
Africa	454	217	380	60	5	1 111	771	437	973	212	20	2 393	907	603	1 879	795	141	4 185
Asia	1 065	738	2 027	469	58	4 299	925	642	2 357	1 239	220	5 164	735	514	1 950	1 511	442	4 712
Europe	116	87	370	170	33	742	109	73	289	238	67	709	98	68	251	222	82	639
Latin America and the Caribbean	166	109	276	65	10	617	137	97	351	196	44	782	107	75	286	267	99	736
Northern America	68	49	168	71	13	355	80	55	189	122	36	446	85	57	204	167	58	513
Oceania	9	6	17	6	1	38	12	8	25	13	4	57	11	8	29	22	8	70
World	26	17	45	12	1.7	100	21	14	44	21	4.1	100	18	12	42	27	7.6	100
More developed regions	16	12	48	23	4.5	100	16	11	41	32	9.5	100	16	11	39	34	13	100
Less developed regions	28	18	45	9.4	1.1	100	22	14	44	19	3.2	100	18	12	43	27	7.0	100
Least developed countries	40	20	35	5.4	0.5	100	30	18	42	10	1.1	100	21	14	44	21	4.1	100
Other less developed countries	26	17	46	10	1.2	100	20	13	45	22	3.8	100	17	12	42	29	8.2	100
Africa	41	20	34	5.4	0.5	100	32	18	41	8.9	0.9	100	22	14	45	19	3.4	100
Asia	25	17	47	11	1.3	100	18	12	46	24	4.3	100	16	11	41	32	9.4	100
Europe	16	12	50	23	4.5	100	15	10	41	34	9.5	100	15	11	39	35	13	100
Latin America and the Caribbean	27	18	45	11	1.6	100	18	12	45	25	5.7	100	15	10	39	36	13	100
Northern America	19	14	47	20	3.7	100	18	12	42	27	8.1	100	17	11	40	33	11	100
Oceania	24	15	45	16	2.9	100	20	13	43	23	6.2	100	16	11	41	31	11	100

Percentage distribution by age group

Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat (2013). *World Population Prospects: The 2012 Revision*. New York: United Nations.

TABLE I.5. MEDIAN AGE FOR THE WORLD, DEVELOPMENT GROUPS AND MAJOR AREAS,  
1950, 1980, 2013, 2050 AND 2100, MEDIUM VARIANT

<i>Development group or major area</i>	<i>Median age (years)</i>				
	<i>1950</i>	<i>1980</i>	<i>2013</i>	<i>2050</i>	<i>2010</i>
World	23.5	22.6	29.2	36.1	41.2
More developed regions	28.5	31.9	40.5	44.5	46.3
Less developed regions	21.4	20.0	27.2	34.9	40.6
Least developed countries	19.3	17.6	19.7	26.4	35.9
Other less developed countries	21.6	20.3	28.7	37.6	42.8
Africa	19.2	17.6	19.4	24.7	34.9
Asia	22.0	21.0	29.7	39.8	45.4
Europe	28.9	32.7	40.9	45.7	46.8
Latin America and the Caribbean	19.9	19.8	28.3	40.6	48.1
Northern America	29.8	30.0	37.7	40.9	44.6
Oceania	27.9	26.4	32.6	37.0	44.1

*Source:* Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat (2013). *World Population Prospects: The 2012 Revision*. New York: United Nations.

NOTE: Only countries or areas with 90,000 persons or more in 2013 are considered.

The more developed regions have been leading the process of population ageing and their experience provides a point of comparison for the expected ageing of the population of the less developed regions. In 1950, the number of children (persons under age 15) in the more developed world was more than twice the number of older persons (those aged 60 years or over), with children accounting for 27 per cent of the total population and the older persons for only 12 per cent (table I.4; 1950 data not shown). By 2013, the proportion of older persons in the more developed regions had surpassed that of children (23 per cent versus 16 per cent) and in 2050, the proportion of older persons is expected to be double that of children (32 per cent versus 16 per cent). In 2050, the number of older persons in more developed regions is projected to be more than four times their number in 1950 (417 million versus 94 million) while the number of children is projected to decline slightly from 223 million in 1950 to 210 million in 2050. Because the fertility of the more developed regions is projected to increase, albeit slowly, over most of the projection period, population ageing will slow down. As a result, between 2050 and 2100 the number of older persons in the more developed regions is expected to increase by only 23 million, to reach 440 million and the number of children under age 15 is expected to remain fairly constant at just over 200 million.

Until 2013, population ageing had been considerably slower in the less developed regions where fertility has been still relatively high. The proportion of children declined from 38 per cent in 1950 to 28 per cent in 2013, while the proportion of older persons increased from 6 per cent to 9 per cent (table I.4; 1950 data not shown). However, a period of more rapid population ageing lies ahead for the less developed regions. By 2050, their proportion of older persons is projected to reach 19 per cent, whereas their proportion of children is projected to decline to 22 per cent. After 2050, population ageing in the less developed regions will continue but at a slower pace. By 2100, the proportion of older persons is projected to increase to 27 per cent and the proportion of children is projected to decline to 18 per cent.

Trends in the number of persons of working age (those aged 15 to 59 years) are particularly important for all countries. The proportion of the population in those ages is an important factor related to the potential for economic growth. In the more developed regions, the proportion of the population of working age decreased from 61 per cent in 1950 to 60 per cent in 1970 and then increased steadily to reach 63 per cent in 2005. Since then, that proportion has been declining. Its value is projected to drop

from 61 per cent in 2013 to 52 in 2050 and then reach 50 per cent in 2100 (table I.4). That is, the major change in the proportion of the population of working ages in the more developed regions will occur over the next 40 years if, as projected in the medium variant, the fertility of the more developed regions rises slowly for the rest of the century.

In the less developed regions, the proportion of the population of working age is expected to decline slightly, passing from 62 per cent in 2013 to 58 per cent in 2050 and 55 per cent in 2100. However, among the least developed countries, that proportion will rise from 55 per cent in 2013 to 60 per cent in 2050 and decline thereafter to 58 per cent in 2100, an increase that represents both an opportunity and a challenge: an opportunity to spur economic growth provided that the challenge of creating gainful employment for the growing numbers of persons of working age is met.

Among the older population, the number and proportion of the oldest-old, that is, persons aged 80 years or over, is rising. In 2013, there were 120 million oldest-old persons in the world, corresponding to 1.7 per cent of the world population (table I.4). By 2050, this segment of the population is projected to reach 392 million or 4.1 per cent of the world population and by 2100 it would ascend to 830 million or 7.6 per cent of the population. The group of oldest-old is the fastest growing segment of the world population. Particularly rapid increases in this group are expected in the less developed regions, where the oldest-old are projected to increase from 63 million in 2013 to 268 million in 2050 and to 666 million in 2100, implying an average annual rate of increase of 3.9 per cent during 2013-2050 and of 1.8 per cent per year during 2050-2100 (table I.6). Over half of the oldest-old already live in the less developed regions but they are expected to become increasingly concentrated in developing countries. Thus, in 2050, 68 per cent of all persons aged 80 or over are expected to live in developing countries and by 2100 80 per cent are expected to do so.

In 2013, 74 countries had populations where persons aged 80 years or older accounted for more than 1.68 per cent of the population (the proportion of oldest-old in the world). The oldest-old accounted for over 7.3 per cent of the population of Japan and for more than 5.5 per cent of the populations of Italy, France, Greece, Spain and Belgium, ordered according to the proportion of oldest-old (table S.6). By 2050, 103 countries are expected to have populations where persons aged 80 or over account for more than 4.10 per cent of the population (the proportion of the oldest-old at the global level in 2050). The oldest-old are projected to account for over 10 per cent of the population in 23 countries. In 2100, the proportion of the oldest-old is projected to exceed 7.83 per cent (their share of the world population) in 128 countries and in 109 of them, the proportion of persons aged 80 years or over is projected to exceed 10 per cent.

Just as the overall population, the oldest-old tend to be concentrated in the most populous countries. In 2013, 22.6 million lived in China, 11.9 million in the United States and 9.9 million in India. In 2050, those countries will still have the largest numbers of persons aged 80 years or over: 90.4 million in China, 37.2 million in India and 31.7 million in the United States. By 2100, China is projected to have 120 million persons of aged 80 or over, India 116 million and the United States 52 million.

TABLE I.6. AVERAGE ANNUAL RATES OF CHANGE OF THE TOTAL POPULATION AND THE POPULATION IN BROAD AGE GROUPS, BY DEVELOPMENT GROUP AND MAJOR AREA, 2013-2050 AND 2050-2100 (MEDIUM VARIANT)

Development group or major area	2013-2050					2050-2100					Total population
	0-14	15-59	60+	80+	Total population	0-14	15-59	60+	80+	Total population	
World	0.22	0.50	2.37	3.19	0.78	-0.09	0.13	0.78	1.50	0.26	
More developed regions	0.05	-0.29	1.01	2.10	0.11	-0.08	-0.09	0.11	0.56	-0.03	
Less developed regions	0.24	0.63	2.87	3.90	0.90	-0.09	0.15	0.92	1.82	0.30	
Least developed countries	1.12	2.00	3.59	4.12	1.89	0.25	0.83	2.37	3.53	0.96	
Other less developed countries	-0.07	0.33	2.79	3.88	0.68	-0.26	-0.11	0.63	1.58	0.06	
Africa	1.43	2.22	3.41	3.67	2.07	0.33	1.03	2.65	3.87	1.12	
Asia	-0.38	0.11	2.63	3.62	0.50	-0.46	-0.40	0.40	1.40	-0.18	
Europe	-0.16	-0.60	0.91	1.91	-0.12	-0.22	-0.24	-0.14	0.41	-0.21	
Latin America and the Caribbean	-0.51	0.27	2.96	4.11	0.64	-0.49	-0.45	0.62	1.60	-0.12	
Northern America	0.43	0.32	1.48	2.70	0.62	0.12	0.13	0.62	0.96	0.28	
Oceania	0.65	0.88	2.05	3.14	1.07	-0.04	0.21	1.03	1.54	0.41	

Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat (2013). *World Population Prospects: The 2012 Revision*. New York: United Nations.

NOTE: Only countries or areas with 90,000 persons or more in 2013 are considered.

## II. FERTILITY

According to the *2012 Revision*, total fertility—that is, the average number of children a woman would bear if fertility rates remained unchanged during her lifetime—is 2.53 children per woman in 2005-2010 at the world level (table II.1). This average masks the heterogeneity of fertility levels among countries and regions (figure II.1 and table S.9). In 2005-2010, 75 countries or areas (45 of them located in the more developed regions) have fertility levels below 2.1 children per woman, that is, below replacement level<sup>26</sup>, whereas 126 countries or areas, all of which, except for Iceland and New Zealand, are located in the less developed regions, and have total fertility levels at or above 2.1 children per woman. Among these 126 countries, 31 have total fertility levels at or above 5 children per woman, 28 of which are least developed countries (table II.2).

The 75 countries where total fertility is below replacement level in 2005-2010 account for 48.2 per cent of the world population or approximately 3.3 billion people. Countries with fertility at or above replacement level account for 3.5 billion people or 51.8 per cent of the world population.

Within the next decades, the number of countries with below-replacement fertility is expected to almost double to reach 139 in 2045-2050. This means that by mid-century 7.1 billion people or 75.2 per cent of the world population will be living in these countries. Under this medium fertility variant, it is assumed that 184 countries will reach below-replacement fertility by 2095-2100, and more than 81 per cent of the world population will be living in a country where the average number of children per woman will be below 2.1.

As in the 2010 revision of the *World Population Prospects*, the assumptions and the projection model used in this revision take into account the unique fertility decline experience of each country while also using the experience of all other countries to inform future potential fertility trajectories. Based on the historical experiences of fertility decline from all the countries and areas of the world since 1950, the projection results of the 2012 revision show that, by mid-century, 22 countries out of 75 currently are expected to still have on average 3 children or more per woman. By 2045-2050, 14.5 per cent of the world population is expected to live in such country compared to 18.4 per cent currently.

Since, 1974, when the first World Population Conference was held in Bucharest, Romania, fertility has declined by more than 20 per cent in 155 developing countries and by over 50 per cent in 40 of them. The fastest fertility reductions, among countries with fertility levels greater or equal to 4 children per woman in 1975-1980, occurred in countries in Asia, including the Islamic Republic of Iran, Viet Nam, United Arab Emirates, Maldives, Mongolia, Oman, Qatar, Bangladesh, Lebanon, Bhutan, Myanmar and Saudi Arabia. Fertility also declined rapidly in countries of Northern Africa, namely in Libya, Tunisia, Algeria, Morocco and Western Sahara as well as in Cape Verde and in Saint Lucia (table S.11). Among the countries that have experienced a decline of fertility by over 50 per cent within the past thirty years, current fertility levels are now on average 2.3 children per women instead of 5.6 in 1975-1980.

Although most developing countries are already far advanced in the transition from high to low fertility, twelve countries still have fertility levels of 6 children per woman or higher in 2005-2010 and in Niger and Somalia total fertility is greater than 7 children per woman (table II.2 and table S.10), and the fertility in these country has decreased at most by about 1.3 child within the last 30 years. Based on the experience of other countries with similar levels of fertility in the past, the fertility of those twelve countries is projected to decline after 2010, at a pace of less than one child per decade after 2020, and none, but one (Afghanistan), is expected to reach 2.1 children per woman by 2045-2050 in the medium variant. As a result, their average fertility is expected to be just below 3.5 children per woman and their

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<sup>26</sup> Replacement-level fertility is the level that needs to be sustained over the long run to ensure that a population replaces itself. For most countries having low or moderate mortality levels, replacement level is close to 2.1 children per woman.

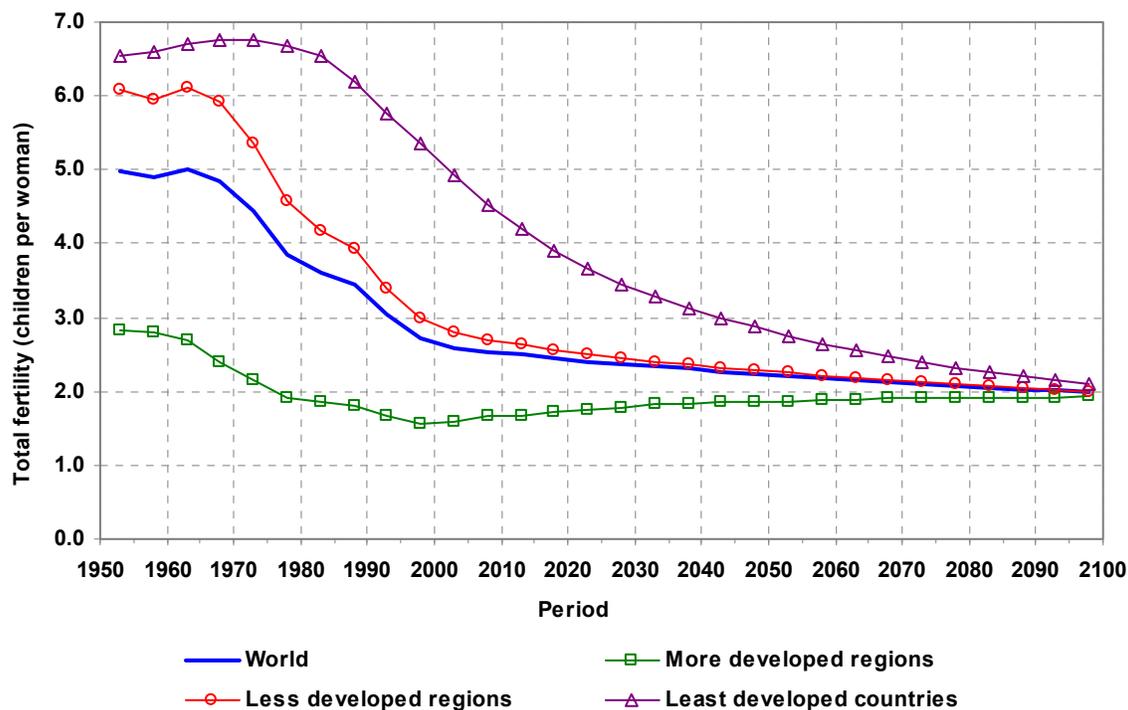
TABLE II.1. ESTIMATED AND PROJECTED TOTAL FERTILITY FOR THE WORLD, DEVELOPMENT GROUPS AND MAJOR AREAS, FOR SELECTED PERIODS AND DIFFERENT VARIANTS

	Total fertility (average number of children per woman)										
	1970-1975	1990-1995	2005-2010	2045-2050				2095-2100			
				Low	Medium	High	Constant-Fertility	Low	Medium	High	Constant-Fertility
World.....	4.44	3.04	2.53	1.78	2.24	2.71	3.28	1.51	1.99	2.47	4.61
More developed regions.....	2.15	1.67	1.66	1.36	1.85	2.35	1.74	1.43	1.93	2.43	1.84
Less developed regions.....	5.36	3.38	2.69	1.83	2.29	2.76	3.45	1.52	1.99	2.48	4.71
Least developed countries .....	6.75	5.77	4.53	2.40	2.87	3.34	5.17	1.63	2.11	2.60	5.76
Other less developed countries .....	5.18	3.08	2.40	1.62	2.09	2.57	2.85	1.45	1.93	2.42	3.73
Africa.....	6.66	5.71	4.88	2.61	3.09	3.58	5.30	1.64	2.12	2.61	5.71
Asia.....	4.99	2.96	2.25	1.39	1.89	2.38	2.58	1.35	1.85	2.35	3.16
Europe.....	2.17	1.57	1.54	1.31	1.80	2.30	1.56	1.39	1.89	2.40	1.63
Latin America and the Caribbean .....	5.02	3.02	2.30	1.34	1.83	2.33	2.44	1.35	1.85	2.34	2.70
Northern America .....	2.01	2.00	2.02	1.47	1.97	2.47	2.02	1.48	1.98	2.48	2.03
Oceania.....	3.23	2.49	2.47	1.60	2.09	2.59	2.70	1.41	1.91	2.40	3.22

Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat (2013). *World Population Prospects: The 2012 Revision*. New York: United Nations.

NOTE: Only countries or areas with 90,000 persons or more in 2013 are considered.

Figure II.1. Total fertility trajectories for the world and development groups, 1950-2100 (medium variant)



Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat (2013). *World Population Prospects: The 2012 Revision*. New York: United Nations.

TABLE II.2. DISTRIBUTION OF THE WORLD POPULATION AS WELL AS COUNTRIES AND AREAS ACCORDING TO THE LEVEL OF TOTAL FERTILITY IN SELECTED PERIODS (MEDIUM VARIANT)

Range of total fertility	World population (1 January)						
	1953	1973	1993	2008	2028	2048	2098
Greater or equal to 7 .....	108	182	188	24	—	—	—
Between 6 and less than 7 .....	1 060	525	288	336	32	—	—
Between 5 and less than 6 .....	589	995	248	268	300	65	—
Between 4 and less than 5 .....	36	1 086	300	225	447	85	—
Between 3 and less than 4 .....	285	92	1 480	390	590	1221	—
Between 2.1 and less than 3 .....	583	411	555	2 258	2 289	975	2 057
Between 1.85 and less than 2.1 .....	4	542	1 633	979	1 423	3531	4 748
Between 1.60 and less than 1.85 .....	—	85	335	1 427	2 728	3542	4 020
Between 1.40 and less than 1.60 .....	—	—	353	346	442	30	6
Between 1.20 and less than 1.40 .....	—	—	197	492	39	7	—
Less than 1.2 .....	—	—	—	7	—	—	—
Total population (millions) .....	2 665	3 919	5 578	6 753	8 290	9 456	10 831

	Percentage of the world population (1 January)						
	1953	1973	1993	2008	2028	2048	2098
Greater or equal to 7 .....	4.1	4.7	3.4	0.4	0.0	0.0	0.0
Between 6 and less than 7 .....	39.8	13.4	5.2	5.0	0.4	0.0	0.0
Between 5 and less than 6 .....	22.1	25.4	4.4	4.0	3.6	0.7	0.0
Between 4 and less than 5 .....	1.4	27.7	5.4	3.3	5.4	0.9	0.0
Between 3 and less than 4 .....	10.7	2.3	26.5	5.8	7.1	12.9	0.0
Between 2.1 and less than 3 .....	21.9	10.5	9.9	33.4	27.6	10.3	19.0
Between 1.85 and less than 2.1 .....	0.1	13.8	29.3	14.5	17.2	37.3	43.8
Between 1.60 and less than 1.85 .....	0.0	2.2	6.0	21.1	32.9	37.5	37.1
Between 1.40 and less than 1.60 .....	0.0	0.0	6.3	5.1	5.3	0.3	0.1
Between 1.20 and less than 1.40 .....	0.0	0.0	3.5	7.3	0.5	0.1	0.0
Less than 1.2 .....	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total of the world population .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0

	Number of countries						
	1950-1955	1970-1975	1990-1995	2005-2010	2025-2030	2045-2050	2095-2100
Greater or equal to 7 .....	29	32	11	2	—	—	—
Between 6 and less than 7 .....	72	50	23	10	1	—	—
Between 5 and less than 6 .....	37	31	24	19	3	1	—
Between 4 and less than 5 .....	17	22	25	19	15	2	—
Between 3 and less than 4 .....	17	15	28	21	29	19	—
Between 2.1 and less than 3 .....	25	31	35	55	40	40	17
Between 1.85 and less than 2.1 .....	4	16	17	23	41	51	98
Between 1.60 and less than 1.85 .....	—	4	20	15	49	85	85
Between 1.40 and less than 1.60 .....	—	—	12	20	19	2	1
Between 1.20 and less than 1.40 .....	—	—	6	15	4	1	—
Less than 1.2 .....	—	—	—	2	—	—	—
Total number of countries .....	201	201	201	201	201	201	201

Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat (2013). *World Population Prospects: The 2012 Revision*. New York: United Nations.

NOTE: Only countries or areas with 90,000 persons or more in 2013 are considered.

population is expected nearly to triple, passing from about 330 million in 2008 to close to 950 million in 2048, and could reach over 2 billion in 2098.

These twelve countries are least developed countries—Afghanistan, Angola, Burkina Faso, Burundi, Chad, the Democratic Republic of the Congo, Mali, Niger, Nigeria, Somalia, Timor-Leste, Uganda—and several are highly affected by the HIV/AIDS epidemic. Moreover, a number of them have been experiencing civil strife and political instability in recent years, factors that militate against the provision of basic services for the population. The continuation of rapid population growth poses serious challenges to their future development.

Despite the important contribution to population growth of countries with the highest fertility (those with a total fertility above 6 children per woman), these twelve countries account today for about 5.1 per cent of the world population and are expected to constitute respectively 10.2 and 19.3 per cent of the world population by 2048 and 2098, according to the medium variant. Countries with total fertility ranging from 4 to 6 children per woman account today for 7.0 per cent of the world population, and will account for about 12.1 per cent by 2048 (table II.2) because their fertility is expected to continue to decline from just 4.95 children per woman on average currently to 2.85 children per woman on average by 2045-2050, and to reach 2.1 children per woman by 2090-2095.

In 2008, the majority of people in the developing world live in the 74 countries with total fertility ranging from 2.1 to 4 children per woman, which account for 43.7 per cent of the world population. Most of those countries are projected to have a total fertility below replacement level by 2040-2045 or even earlier, according to the medium variant. Overall, 139 countries or areas are projected to have below-replacement fertility in 2045-2050, with 88 having a total fertility lower than 1.85 children per woman. As a result, according to the medium variant, 75.2 per cent of the world population is expected to live in countries with below-replacement fertility in 2045-2050. This percentage is expected to increase up to 81 per cent by the end of the century, but by then 98 countries are assumed to have reached a sub-replacement fertility level between 1.85 and 2.1 children per woman on average.

Fertility levels in developed countries, many of which experienced a “baby-boom” during the 1950s and 1960s, have generally declined since the early 1970s to below-replacement level. In fact, in 1975-1980, more than half of the 45 developed countries in the world already had below-replacement fertility. By 2005-2010, almost all developed countries had reached fertility levels below 2.1 children per woman (only Iceland and New Zealand have fertility levels equal or just above 2.1). Among them, 12 had reached historically unprecedented low fertility levels (below 1.4 children per woman), with Austria, Bosnia and Herzegovina, Germany, Hungary, Italy, Japan, Malta, Poland, Portugal, Romania, Slovakia and Ukraine exhibiting the lowest levels in the developed world. But the top five countries or areas experiencing in 2005-2010 the lowest fertility levels (below 1.3 children per woman) were Macao and Hong Kong (SARs of China), Bosnia and Herzegovina, the Republic of Korea and Singapore (table S.10).

At the world level, the medium variant projects total fertility to be 2.24 children per woman in 2045-2050 (table II.1), with a convergence between countries which leads to 1.85 children per woman in the more developed regions and 2.29 children per woman in the less developed regions. That is, although the difference in total fertility between the more and the less developed regions narrows considerably by mid-century, the less developed regions are still expected to have a higher total fertility than the more developed regions, and some regions like Africa to have on average a fertility more than one child higher than in Asia or Latin America. That difference persists in all projection variants. Total fertility in the low variant is expected to be 1.36 children per woman in the more developed regions and 1.83 children per woman in the less developed regions. In the high variant, total fertility is projected to be 2.35 children per woman in the more developed regions and 2.76 children per woman in the less developed regions.

### III. MORTALITY

#### A. TRENDS AND PROSPECTS IN WORLD MORTALITY

The twentieth century witnessed the most rapid decline in mortality in human history. In 1950-1955, life expectancy at the world level was 47 years and it had reached 69 years by 2005-2010. Over the next 40 years, life expectancy at birth at the global level is expected to reach 76 years in 2045-2050 and 82 years in 2095-2100 (table III.1 and figure III.1). The more developed regions already had a high expectation of life in 1950-1955 (64.7 years) and have since experienced further gains in longevity. By 2005-2010 their life expectancy stood at 76.9 years, 10 years higher than in the less developed regions where the expectation of life at birth was 67.0 years. Although the gap between the two groups is expected to narrow between 2005 and mid-century, in 2045-2050 the more developed regions are still expected to have considerably higher life expectancy at birth than the less developed regions (82.8 years versus 74.8 years). Throughout 2010-2100, systematic progress against mortality is further expected to increase life expectancy at birth up to 88.9 years in the more developed regions and 80.8 years in the less developed regions thereby further reducing the gap in mortality between the two groups.

TABLE III.1. LIFE EXPECTANCY AT BIRTH FOR THE WORLD, DEVELOPMENT GROUPS AND MAJOR AREAS, 2005-2010, 2045-2050 AND 2095-2100

<i>Major area</i>	<i>2005-2010</i>	<i>2045-2050</i>	<i>2095-2100</i>
World.....	68.7	75.9	81.8
More developed regions.....	76.9	82.8	88.9
Less developed regions.....	67.0	74.8	80.8
Least developed countries .....	58.4	70.4	77.6
Other less developed countries .....	68.8	76.0	82.2
Africa.....	55.6	68.9	77.1
Asia.....	70.3	76.9	83.0
Europe .....	75.3	81.3	87.9
Latin America and the Caribbean .....	73.4	81.8	87.9
Northern America.....	78.4	83.7	89.0
Oceania.....	76.8	81.7	86.6

*Source:* Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat (2013). *World Population Prospects: The 2012 Revision*. New York: United Nations.

The 49 least developed countries, which include 20 of the countries that are highly affected by HIV/AIDS, have been experiencing higher mortality than other development groups. Their life expectancy at birth was 58.4 years in 2005-2010 and is expected to remain relatively low, reaching 70.4 years in 2045-2050. During 2050-2100, provided a continued decline in mortality rates from HIV/AIDS as well as from other major causes of death, it is conceivable that life expectancy at birth will further climb to reach 77.6 years in 2095-2100. This gain is the most important factor in reducing gap in life expectancy between the more developed and the less developed groups of countries.

The general upward trend in life expectancy for the more developed and the less developed regions conceals different trends among the world's major areas (table III.1 and figure III.2). In Asia, Latin America and the Caribbean, Northern America and Oceania, life expectancy has been increasing at a steady pace. In contrast, Europe as a whole experienced a slowdown in the increase of life expectancy starting in the late 1960s and stagnating levels since the late 1980s. This trend is the result of severe reductions in life expectancy in countries of Eastern Europe, particularly in the Russian Federation and the Ukraine. The remaining regions of Europe have had increasing life expectancies which are currently equal to or higher than that of Northern America.

Figure III.1. Life expectancy at birth for the world and development groups, 1950-2100

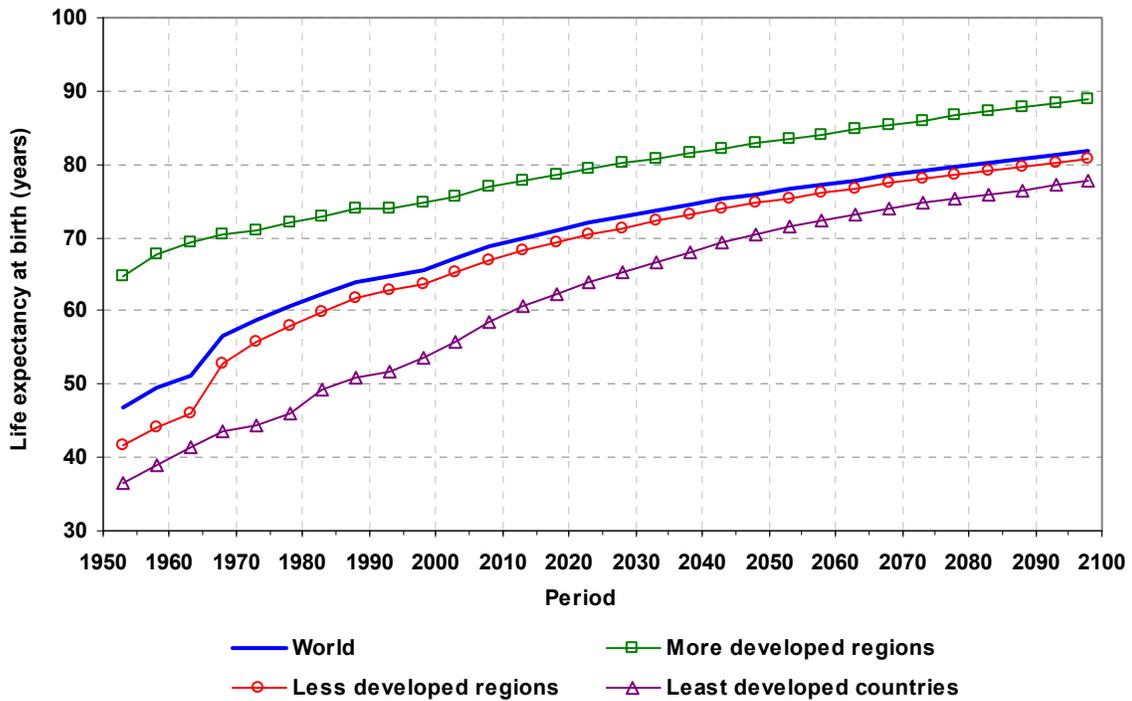
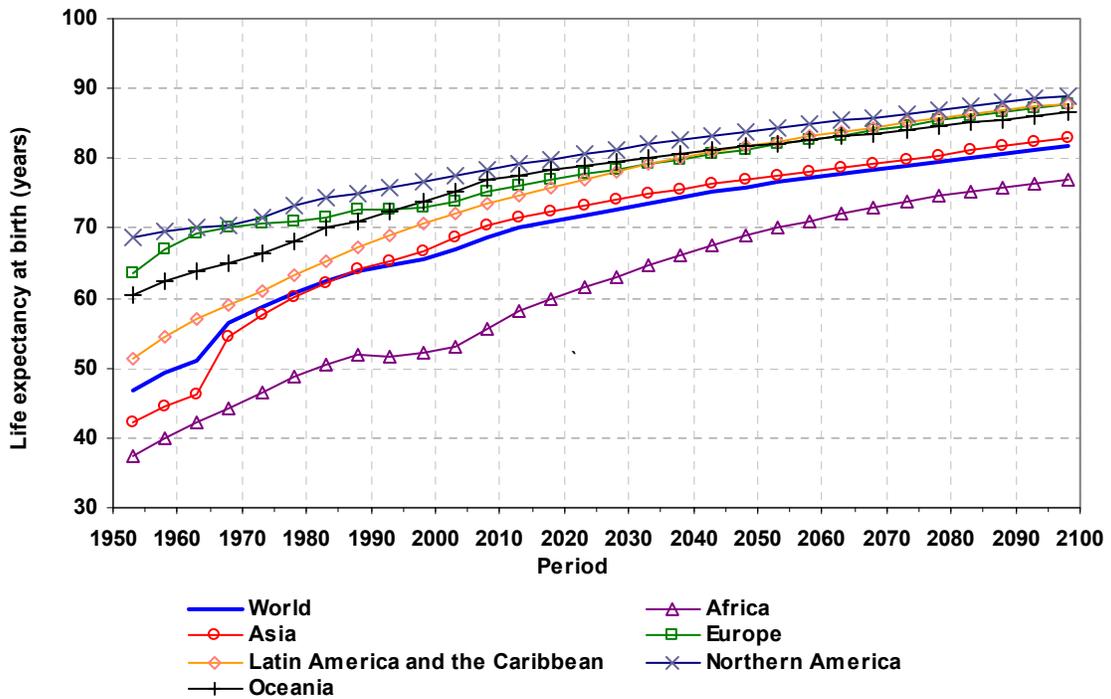


Figure III.2. Life expectancy at birth for the world and major areas, 1950-2100



Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat (2013). *World Population Prospects: The 2012 Revision*. New York: United Nations.

Africa has the lowest life expectancy levels of any major area. Furthermore, life expectancy in Africa has virtually stagnated since the late 1980s. While this trend is due in large part to the HIV/AIDS epidemic, other factors have also played a role, including armed conflict, economic stagnation, and resurgent infectious diseases such as tuberculosis and malaria. The recent negative developments in many countries of Africa represent major set backs in reducing mortality. Only in 2005-2010 is life expectancy expected to begin rising again and, provided efforts to reduce the expansion of the HIV/AIDS epidemic and to treat those affected by it succeed, it is expected to continue rising to reach 68.9 years in 2045-2050 and 77.1 in 2095-2100.

However, even if these gains materialize, by mid-century the population of Africa is still expected to be subject to the highest mortality levels in the world, with its overall life expectancy being 6 years lower than the next lowest one, that of Asia.

In nearly all countries of the world, female life expectancy at birth is higher than that of males. At the world level, females have a life expectancy of 71.0 years in 2005-2010, compared to 66.5 years for males (table III.2). The female advantage is considerably larger in the more developed regions (7 years) than in the less developed regions (3.6 years). The gap between male and female life expectancy is particularly narrow in the least developed countries (2.2 years). At the world level, a difference of 4.5 years between female and male life expectancy is expected to persist until 2045-2050, but whereas the female to male gap in life expectancy is expected to narrow in the more developed regions, it is expected to widen in the less developed regions. By 2095-2100, the gap between male and female life expectancy is expected to narrow on the world level and in all regions expect the least developed countries where it is expected to stabilize since 2045-2050 at about 4 years.

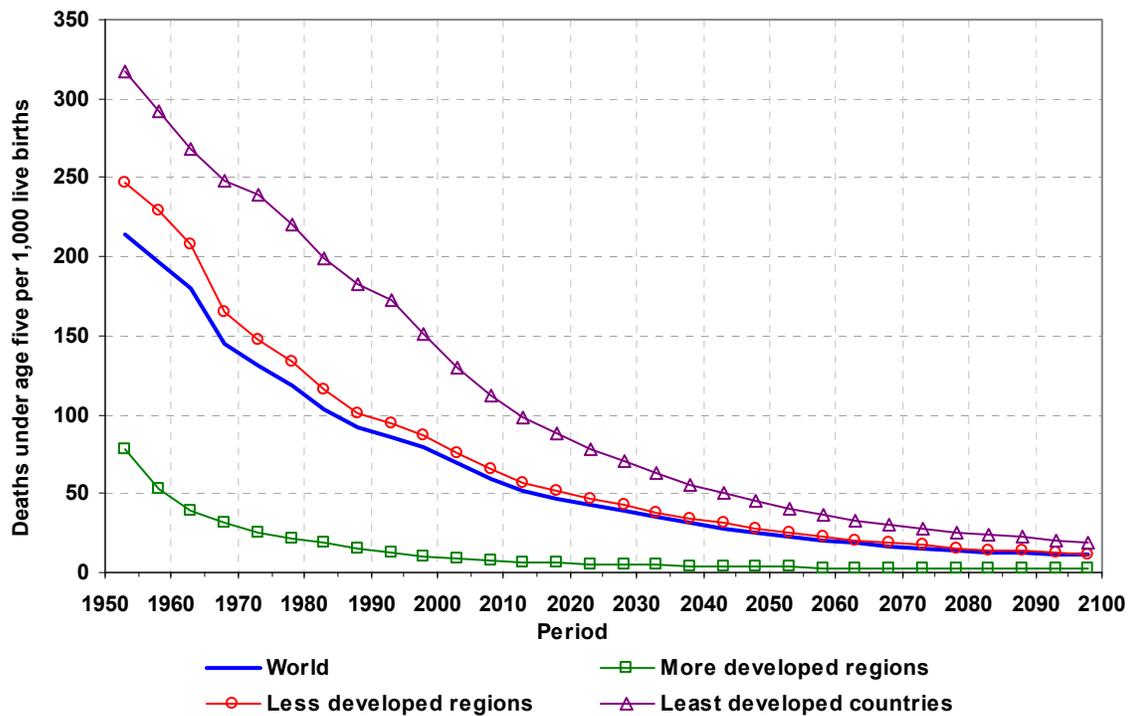
TABLE III.2. LIFE EXPECTANCY BY SEX FOR THE WORLD AND DEVELOPMENT GROUPS, 2005-2010, 2045-2050 AND 2095-2100

<i>Major area</i>	<i>Life expectancy at birth (years)</i>					
	<i>2005-2010</i>		<i>2045-2050</i>		<i>2095-2100</i>	
	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>
World .....	66.5	71.0	73.7	78.2	79.9	83.7
More developed regions .....	73.4	80.4	79.9	85.7	86.5	91.4
Less developed regions .....	65.2	68.8	72.7	76.8	79.1	82.7
Least developed countries .....	57.3	59.5	68.5	72.3	75.6	79.7

*Source:* Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat (2013). *World Population Prospects: The 2012 Revision*. New York: United Nations.

Under-five mortality, expressed as the probability of dying between birth and the exact age of five, is an important indicator of development and the well-being of children. In 1950-1955, 21 per cent (215 deaths per 1,000 births) of all children born worldwide did not reach their fifth birthday (figure III.3). By 2005-2010, this rate had fallen to 59 deaths per 1,000 births. It is expected to continue declining to 26 deaths per 1,000 births by the middle of the century and 11 deaths per 1,000 births by the end of the century. In more developed countries, children mortality rate dropped from 78 deaths per 1,000 births in 1950-55 to 8 deaths per 1,000 births in 2005-2010. It is expected to reach to 4 deaths per 1,000 births in 2045-2050 and 2 deaths per 1,000 by 2095-2100. However, this rate in least developed regions still remains at a relatively high level today, around 112 deaths per 1,000 births in 2005-2010, falling from 318 deaths per 1,000 births in 1950-55; it is expect to decrease to 45 deaths per 1,000 births in 2045-2050 and to 19 deaths per 1,000 births in 2095-2100. Children mortality rate in less developed regions as a whole were more or less close to that of the world: 247 deaths per 1,000 births in 1950-1955, 65 deaths per 1,000 births in 2005-2010, 35 deaths per 1,000 births in 2045-2050 and 12 deaths per 1,000 births in 2095-2100.

Figure III.3. Under-five mortality for the world and development groups, 1950-2100



Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat (2013). *World Population Prospects: The 2012 Revision*. New York: United Nations.

## B. THE DEMOGRAPHIC IMPACT OF HIV/AIDS

More than thirty years into the HIV/AIDS epidemic, its effects on the populations of the highly-affected countries is still evident. In the *2012 Revision*, the demographic impact of HIV/AIDS is explicitly modelled or estimated in 39 countries, down from 48 in the *2010 Revision*. In most of these countries, HIV prevalence reached 2 per cent or higher in the period from 1980 to 2011 among the population aged 15-49 years. Among the 39 highly affected countries, 32 are in Africa, one in Asia, and six in Latin America and the Caribbean.

In the *2012 Revision*, the estimated and projected long-term impact of HIV/AIDS is similar in most countries to that projected in the *2010 Revision*. In other words, we still assume that antiretroviral therapy will reach an ever increasing proportion of the persons who need it; and as a result, those persons will not only survive longer but will be less infectious. However, realization of these projections is contingent on sustained commitment by Governments to assure treatment for those infected and to promote preventive measures and behavioural changes among the uninfected.

The *2012 Revision* confirms yet again the devastating toll AIDS has in terms of increased morbidity, mortality and population loss. Life expectancy in the most affected countries already shows dramatic declines. In Botswana, where HIV prevalence is estimated at 23.4 per cent in 2011 among the population aged 15-49 years, life expectancy has fallen from 64 years in 1985-1990 to 47 years in 2005-2010. By 2015-2020, life expectancy is expected to increase again to 51 years as a result of declining HIV prevalence and increased access to antiretroviral therapy. In Southern Africa as a whole, where most of the worst affected countries are, life expectancy has fallen from 61 to 52 years over the last 20 years.

While the impact in Southern Africa is particularly stark, the majority of highly affected countries in Africa have experienced declines in life expectancy in the past twenty years because of the epidemic.

The toll that HIV/AIDS is taking is already retarding progress in reducing child mortality. The impact of HIV on child mortality is particularly dramatic in countries that had achieved relatively low levels of child mortality before the epidemic began. In Zimbabwe, for instance, where under-five mortality was one of the lowest in sub-Saharan Africa, it has risen from 87 child deaths per 1,000 births in 1985-1990 to 99 per 1,000 in 2000-2005 and is projected to decline to 53 per 1,000 in 2010-2015. In Swaziland, under-five mortality has risen from 108 to 127 deaths per 1,000 births between 1985-1990 and 2000-2005, and is expected to decline to 92 deaths per 1,000 in 2010-2015. The impact of HIV/AIDS on child mortality is projected to decrease in the future with improved prevention of mother-to-child transmission and expanding coverage for HIV/AIDS treatment.

Despite the effect of the epidemic on reducing population growth rates, the populations of affected countries are generally expected to be larger by mid-century than today, mainly because most of them maintain high to moderate fertility levels. In fact, owing to the downward revision of the prevalence of HIV/AIDS combined with the expected expansion of access to antiretroviral therapy and efforts to control the further spread of HIV, all the countries with the highest prevalence in 2011 are expected to experience positive population growth rates between 2005 and 2050.



## IV. INTERNATIONAL MIGRATION

International migration is the component of population change most difficult to measure and estimate reliably. Thus, the quality and quantity of the data used in the estimation and projection of net migration varies considerably by country. Furthermore, the movement of people across international boundaries, which is very often a response to changing socio-economic, political and environmental forces, is subject to a great deal of volatility. Refugee movements, for instance, may involve large numbers of people moving across boundaries in a short time. For these reasons, projections of future international migration levels are the least robust part of current population projections and reflect mainly a continuation of recent levels and trends in net migration. For those reasons, it was decided to provide an overview of the projections of migration until 2050.

Estimates of net migration between the development groups show that since 1960 the more developed regions have been net gainers of emigrants from the less developed regions (table IV.1). Furthermore, net migration to the more developed regions has been increasing steadily from 1960 to 2010. During 2000-2010, the level of net migration to the more developed regions as a whole reached a peak of 3.46 million migrants annually. Within that period, Europe was the major area that had the highest level of net migration (1.88 million annually). Over the projection period, net migration to the more developed regions is projected to decline smoothly to about 2.3 million per year during 2040-2050, while the number of net migrants in Northern America is projected to remain almost constant at 1.2 million. With respect to the other major areas, Asia was by far the major source of migrants during 2000-2010 (1.78 million annually), followed by Latin America and the Caribbean (1.16 million annually) and then Africa (0.39 million annually). Over the projection period, Asia alone accounts for over half of all the net number of emigrants from the less developed regions to the more developed regions.

At the country level, during 2000-2010, 32 of the 45 developed countries have been net receivers of international migrants. This group includes traditional countries of immigration such as Australia, Canada, New Zealand and the United States, most of the populous countries in Northern, Southern and Western Europe as well as the Russian Federation and Japan. The movement of people from less developed regions to more developed regions has dominated the world migration patterns for almost half a century, but flows among developing countries have also been important. Several developing countries or areas have been attracting migrants in large numbers, including, Israel, Kuwait, Malaysia, Qatar, Saudi Arabia, Singapore, South Africa, Thailand and the United Arab Emirates. Jordan and the Syrian Arab Republic have been the primary receivers of refugees from Iraq. Many African countries have been the destination of refugee flows from neighbouring countries. During 2000-2010, the countries having the highest levels of net emigration included Bangladesh, China, India, Indonesia, Mexico and the Philippines. Pakistan also registered high levels of net emigration, partly as a result of the repatriation of Afghani refugees.

Though the results are not portrayed in table IV.1, the assumption for international migration after 2050 is that net migration will gradually decline and reach zero by 2100 in each country. We realize that this assumption is very unlikely to be realized but it is quite impossible to predict the levels of immigration or emigration within each country of the world for such a far horizon. Sending countries of today may become receiving countries and vice versa.

