

## INTRODUCTION

The United Nations Population Division has been preparing the official United Nations estimates and projections of the world's population since 1951. The *2000 Revision* is the seventeenth set of global estimates and projections completed by the Population Division since that date. Until 1978, revisions of the global set of population projections were published every five years, but since that date the Population Division has issued revisions of the estimates and projections for all the countries and areas of the world every two years. The results of this revision of *World Population Prospects*, denominated the *2000 Revision*, are being published in three volumes. Volumes I and II of this set were issued in 2001. The present volume, the third in the set, is devoted to the detailed analysis of the results of the *2000 Revision*. In addition, the results of the *2000 Revision* are available in digital form on CD-Rom. A form printed at the end of this volume contains instructions on how to obtain the data on CD.

The data produced for each revision of *World Population Prospects* represents a unique set of comprehensive, consistent and internationally comparable estimates and projections of population by age and sex as well as estimates and projections of mortality and fertility schedules by age and sex, and estimates of net international migration for each country. Such data serve as a basis for the elaboration of sectoral estimates and projections produced by the various agencies and bodies of the United Nations system. The population estimates and projections prepared by the Population Division not only provide a solid foundation for the derivation of sectoral projections but also for the global analysis of different aspects of population dynamics and for the analysis of interrelations between other socio-economic processes and population dynamics. Given the numerous uses of the United Nations Population Division's estimates and projections as well as the fact that future world population trends are inherently uncertain, it is important to ensure that the official set of population estimates and projections of the United Nations system are kept as up-to-date as possible. This goal is met by revising the

official set of projections every two years and, in the process, incorporating the most recent demographic information available for each country of the world.

For the 187 countries or areas of the world that had an estimated population of 140,000 inhabitants or more for 2000, the projections are carried out using the cohort-component method, which requires explicit assumptions on future fertility, mortality and migration trends for each country. For the 41 countries or areas that in 2000 had less than 140,000 inhabitants, projections of the total population are made on the basis of assumptions about the future rate of population growth. Such methodology does not require or produce information on future fertility, mortality and migration levels.

Estimates and projections are made and presented for each country separately. The estimates cover the period 1950-2000 and the projections the period 2000-2050. Results are also presented in terms of the world as a whole, its 21 regions and six major areas. The sets of countries that constitute each region and major area are presented in table 1. In addition, countries are organized by level of development. These sets of countries are grouped into more developed regions and less developed regions, as well as into the group of least developed countries. The more developed regions and less developed regions are mutually exclusive sets of countries that together constitute the whole world. The more developed regions include all countries in Europe and Northern America plus Australia, New Zealand and Japan (for a list of countries in Europe and Northern America, see table 1). The less developed regions include all other countries or areas in the world. The list of least developed countries as established by the United Nations General Assembly is presented in table 2.

Normally, the revisions of *World Population Prospects* have included the results of three projection variants prepared for each of the countries or areas whose populations are projected using the

TABLE 1. CLASSIFICATION OF COUNTRIES OR AREAS BY MAJOR AREA AND REGION OF THE WORLD

<b>Africa</b>			
<i>Eastern Africa</i>	<i>Middle Africa</i>	<i>Northern Africa</i>	<i>Western Africa</i>
Burundi	Angola	Algeria	Benin
Comoros	Cameroon	Egypt	Burkina Faso
Djibouti	Central African Republic	Libyan Arab Jamahiriya	Cape Verde
Eritrea	Chad	Morocco	Côte d'Ivoire
Ethiopia	Congo	Sudan	Gambia
Kenya	Democratic Republic of the Congo	Tunisia	Ghana
Madagascar	Equatorial Guinea	Western Sahara	Guinea
Malawi	Gabon	<i>Southern Africa</i>	Guinea-Bissau
Mauritius	Sao Tome and Principe*	Botswana	Liberia
Mozambique		Lesotho	Mali
Réunion		Namibia	Mauritania
Rwanda		South Africa	Niger
Seychelles*		Swaziland	Nigeria
Somalia			St. Helena*
Uganda			Senegal
United Republic of Tanzania			Sierra Leone
Zambia			Togo
Zimbabwe			
<b>Asia</b>			
<i>Eastern Asia</i>	<i>South-central Asia</i>	<i>South-eastern Asia</i>	<i>Western Asia</i>
China	Afghanistan	Brunei Darussalam	Armenia
China, Hong Kong SAR	Bangladesh	Cambodia	Azerbaijan
China, Macao SAR	Bhutan	East Timor	Bahrain
Democratic People's Republic of Korea	India	Indonesia	Cyprus
Japan	Iran (Islamic Republic of)	Lao People's Democratic Republic	Gaza Strip
Mongolia	Kazakhstan	Malaysia	Georgia
Republic of Korea	Kyrgyzstan	Myanmar	Iraq
	Maldives	Philippines	Israel
	Nepal	Singapore	Jordan
	Pakistan	Thailand	Kuwait
	Sri Lanka	Viet Nam	Lebanon
	Tajikistan		Oman
	Turkmenistan		Qatar
	Uzbekistan		Saudi Arabia
			Syrian Arab Republic
			Turkey
			United Arab Emirates
			Yemen

TABLE 1 (continued)

<b>Europe</b>			
<i>Eastern Europe</i>	<i>Northern Europe</i>	<i>Southern Europe</i>	<i>Western Europe</i>
Belarus	Channel Islands	Albania	Austria
Bulgaria	Denmark	Andorra*	Belgium
Czech Republic	Estonia	Bosnia and Herzegovina	France
Hungary	Faeroe Islands*	Croatia	Germany
Poland	Finland	Gibraltar*	Liechtenstein*
Republic of Moldova	Iceland	Greece	Luxembourg
Romania	Ireland	Holy See*	Monaco*
Russian Federation	Isle of Man*	Italy	Netherlands
Slovakia	Latvia	Malta	Switzerland
Ukraine	Lithuania	Portugal	
	Norway	San Marino*	
	Sweden	Slovenia	
	United Kingdom of Great Britain and Northern Ireland	Spain	
		The former Yugoslav Republic of Macedonia	
		Yugoslavia	
<b>Latin America and the Caribbean</b>			
<i>Caribbean</i>	<i>Central America</i>	<i>South America</i>	
Anguilla*	Belize	Argentina	
Antigua and Barbuda*	Costa Rica	Bolivia	
Aruba*	El Salvador	Brazil	
Bahamas	Guatemala	Chile	
Barbados	Honduras	Colombia	
British Virgin Islands*	Mexico	Ecuador	
Cayman Islands*	Nicaragua	Falkland Islands (Malvinas)*	
Cuba	Panama	French Guiana	
Dominica*		Guyana	
Dominican Republic		Paraguay	
Grenada*		Peru	
Guadeloupe		Suriname	
Haiti		Uruguay	
Jamaica		Venezuela	
Martinique			
Montserrat*			
Netherlands Antilles			
Puerto Rico			
Saint Kitts and Nevis*			
Saint Lucia			
Saint Vincent and the Grenadines*			
Trinidad and Tobago			
Turks and Caicos Islands*			
United States Virgin Islands*			

TABLE 1 (continued)

<b>Northern America</b>				
Bermuda*				
Canada				
Greenland*				
St. Pierre and Miquelon*				
United States of America				
<b>Oceania</b>				
<i>Australia/New Zealand</i>	<i>Melanesia</i>	<i>Micronesia</i>	<i>Polynesia</i>	
Australia	Fiji	Guam	American Samoa*	
New Zealand	New Caledonia	Kiribati*	Cook Islands*	
	Papua New Guinea	Marshall Islands*	French Polynesia	
	Solomon Islands	Micronesia*	Niue*	
	Vanuatu	(Federated States of)	Pitcairn*	
		Nauru*	Samoa	
		Northern Mariana Islands*	Tokelau*	
		Palau*	Tonga*	
			Tuvalu*	
			Wallis and Futuna Islands*	
<b>Sub-Saharan Africa</b>				
Angola	Côte d'Ivoire	Guinea	Niger	Sudan
Benin	Democratic	Guinea-Bissau	Nigeria	Swaziland
Botswana	Republic of the	Kenya	Réunion	Togo
Burkina Faso	Congo	Lesotho	Rwanda	Uganda
Burundi	Djibouti	Liberia	Saint Helena	United Republic
Cameroon	Equatorial	Madagascar	Sao Tome and	of Tanzania
Cape Verde	Guinea	Malawi	Principe	Zambia
Central African	Eritrea	Mali	Senegal	Zimbabwe
Republic	Ethiopia	Mauritania	Seychelles	
Chad	Gabon	Mauritius	Sierra Leone	
Comoros	Gambia	Mozambique	Somalia	
Congo	Ghana	Namibia	South Africa	

\*Countries or areas with a population smaller than 140,000 in 2000.

TABLE 2. LEAST DEVELOPED COUNTRIES\*

Afghanistan	Guinea	Niger
Angola	Guinea-Bissau	Rwanda
Bangladesh	Haiti	Samoa
Benin	Kiribati	Sao Tome and Principe
Bhutan	Lao People's Democratic	Sierra Leone
Burkina Faso	Republic	Solomon Islands
Burundi	Lesotho	Somalia
Cambodia	Liberia	Sudan
Cape Verde	Madagascar	Togo
Central African Republic	Malawi	Tuvalu
Chad	Maldives	Uganda
Comoros	Mali	United Republic of Tanzania
Democratic Republic of the Congo	Mauritania	Vanuatu
Djibouti	Mozambique	Yemen
Equatorial Guinea	Myanmar	Zambia
Eritrea	Nepal	
Ethiopia		
Gambia		

\*As of 28 February 2001, the group of least developed countries comprised 48 countries.

cohort-component method. These variants differ from one another only on the future course of fertility. That is, they all incorporate the same assumptions about future trends in mortality and international migration. These variants are known as the low-fertility, medium-fertility and high-fertility variants, or low, medium and high for short. In the *2000 Revision* four other projection variants have been calculated for each country. They are the instant-replacement, constant-fertility, constant-mortality and zero-migration variants. These variants have been produced for illustrative purposes, to permit an assessment of the effects that future assumptions on fertility, mortality and international migration in the medium variant have in relation to these variants. For that reason and in order to make clear that the new variants are illustrative and not adequate embodiments of what future trends might actually be, in this volume they will be referred to as “scenarios” instead of variants. The actual assumptions underlying these new scenarios will be described below.

The low, medium and high variants constitute the core of the official estimates and projections of the United Nations. They encompass the likely future path of population growth for each country or area of the world. The low and high variants provide lower and upper bounds for that growth. The medium variant is a useful central reference for trends over the longer term. The results for each variant reflect the assumptions that underlie it. These assumptions are described in section B of this introduction. The next section summarizes the key findings of the *2000 Revision*.

#### A. KEY RESULTS OF THE *2000 REVISION*

World population reached 6.1 billion in the middle of 2000 and is currently growing at a rate of 1.2 per cent annually, implying a net addition of 77 million people per year. Six countries account for half of that annual increment: India for 21 per cent; China for 12 per cent; Pakistan for 5 per cent; Nigeria for 4 per cent; Bangladesh for 4 per cent, and Indonesia for 3 per cent. By 2050, world population is expected to be between

7.9 billion (low variant) and 10.9 billion (high variant), with the medium variant producing 9.3 billion people (figure 1).

The population of more developed regions, currently 1.2 billion, is expected to change little during the next 50 years, although fertility levels are expected to remain below replacement level<sup>1</sup>. However, by 2050 the populations of 39 countries are projected to be smaller than today. Moreover, the populations of several developed countries are projected to be significantly larger by 2050 (e.g., Canada, 33 per cent larger; Australia, 38 per cent larger; and the United States, 40 per cent larger).

The population of the less developed regions is projected to rise steadily from 4.9 billion in 2000 to 8.2 billion in 2050 (medium variant). This projection assumes continuing declines in fertility. If such declines were less rapid than projected in the medium-variant, the population of the less developed regions could reach 11.9 billion instead of the projected 8.2 billion. Rapid population growth is expected among the group of 49 countries classified as the least developed. Although their fertility is projected to decline markedly in the future, their population is expected nearly to triple between 2000 and 2050, increasing from 658 million to 1.8 billion.

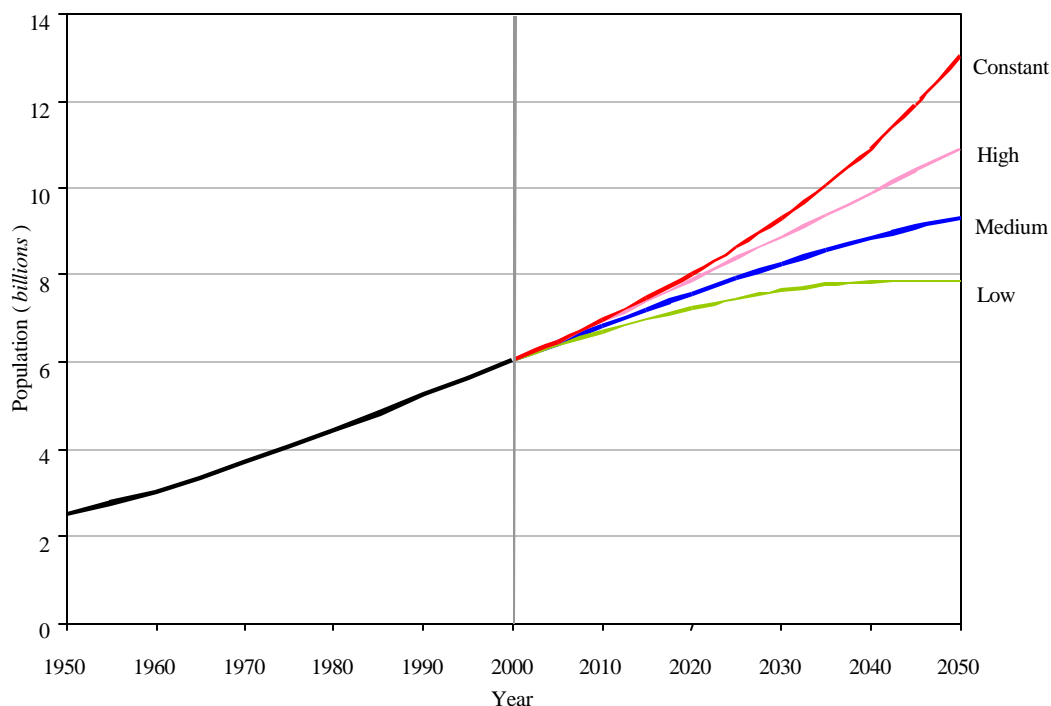
For 1995-2000, life expectancy at birth in the more developed regions is estimated to be 75 years. In the less developed regions, life expectancy was nearly 12 years lower, at 63 years. By 2045-2050 the more developed regions are expected to attain a life expectancy of 82 years, whereas in the less developed regions the projected level is 75 years, that is, the gap between the two groups will likely narrow.

The *2000 Revision* indicates that the impact of the HIV/AIDS epidemic will worsen, resulting in increased morbidity, mortality and population loss. Thus, during the next five years, the number of excess deaths due to AIDS among the 45 most affected countries (up from the 34 considered in the *1998 Revision*) is estimated at 15.5 million.

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<sup>1</sup>Replacement-level fertility is the level necessary to ensure that the population replaces itself over the long run. For populations with low mortality, replacement is ensured with a total fertility of 2.1 children per woman.

**Figure 1. Estimated and projected population of the world according to four different projection variants, 1950-2050**



Despite the devastating impact of the HIV/AIDS epidemic, the populations of the most affected countries are expected to be larger by mid-century than today, owing to the continuing high fertility of those countries. For the nine countries in Africa most affected by the epidemic (with HIV prevalence at or above 14 per cent), the population is projected to increase from 115 million in 2000 to 196 million in 2050. Even in Botswana, where HIV prevalence is 36 per cent, or in Swaziland and Zimbabwe, where it is above 25 per cent, the population is projected to increase significantly between 2000 and 2050: by 37 per cent in Botswana, 148 per cent in Swaziland and 86 per cent in Zimbabwe. Only in South Africa, where fertility is lower than that of Botswana or Zimbabwe, does the growth rate of the population become negative during 2010-2025, being positive thereafter.

Although the probability of being infected by HIV is assumed to decline significantly in the future (particularly after 2015), the long-term impact of the epidemic remains dire. For the 45 most affected countries, the expectation of life at birth

has already been reduced by nearly three years with respect to what it would have been without AIDS. By 2010-2015, expectation of life is projected to stand at 60 years, five years lower than it would have been in the absence of HIV/AIDS.

Globally the number of older persons (i.e., those aged 60 years or over) will more than triple, increasing from 606 million today to nearly 2 billion by 2050. The increase in the number of the oldest old (those aged 80 years or over) is expected to be even more marked, increasing from 69 million in 2000 to 379 million in 2050, more than a five-fold increase.

In the more developed regions, the population aged 60 years or over currently constitutes about 20 per cent of the population; by 2050 it will likely account for 33 per cent. The older population in those regions has already surpassed the child population (persons aged 0-14), and by 2050 there will be two older persons for every child. In the less developed regions, the proportion of the population aged 60 years or over will rise from 8 per cent in 2000 to close to 20 per cent in 2050.

International migration is projected to remain high during the twenty-first century. The more developed regions are expected to remain net receivers of international migrants, with an average gain of about 2 million per year over the next 50 years. Because of low fertility, this migration will have a significant impact on population growth. Without migration, the population of the more developed regions would start declining in 2003 rather than in 2025, and by 2050 it would be 126 million less than the 1.18 billion projected under the assumption of continued migration (figure 2).

## B. ASSUMPTIONS UNDERLYING THE 2000 REVISION

The 2000 Revision includes three projection variants and four scenarios. Five differ among themselves with respect to the assumptions made regarding the future course of fertility. The sixth differs with respect to the assumptions made about the future course of mortality and the seventh differs with respect to the future course of migration. To describe the different projection variants or scenarios, the various assumptions made regarding fertility, mortality and international migration are described first.

### 1. Fertility assumptions

Fertility assumptions are described in terms of the following groups of countries:

1. *High-fertility countries*: Countries that until 2000 have had no fertility reduction or only an incipient decline;
2. *Medium-fertility countries*: Countries where total fertility has been declining but whose level is still above replacement level (2.1 children per woman in 1995-2000);
3. *Low-fertility countries*: Those with total fertility at or below replacement level (2.1 children per woman in 1995-2000) plus a few with levels very close to replacement level that are judged ready to drop below replacement level in the near future (2000-2005).

### **Medium-fertility assumption:**

1. Total fertility in high-fertility countries is generally assumed to decline at an average pace of nearly one child per decade starting in 2005 or later. Consequently, some of these countries do not reach replacement level by 2050.
2. Total fertility in medium-fertility countries is assumed to reach replacement level before 2050.
3. Total fertility in low-fertility countries is generally assumed to remain below the replacement level during the projection period, reaching by 2045-2050 the total fertility of the cohort of women born in the early 1960s or, if that information is lacking, reaching 1.7 children per woman if current total fertility is below 1.5 children per woman or 1.9 children per woman if current total fertility is equal or higher than 1.5 children per woman.

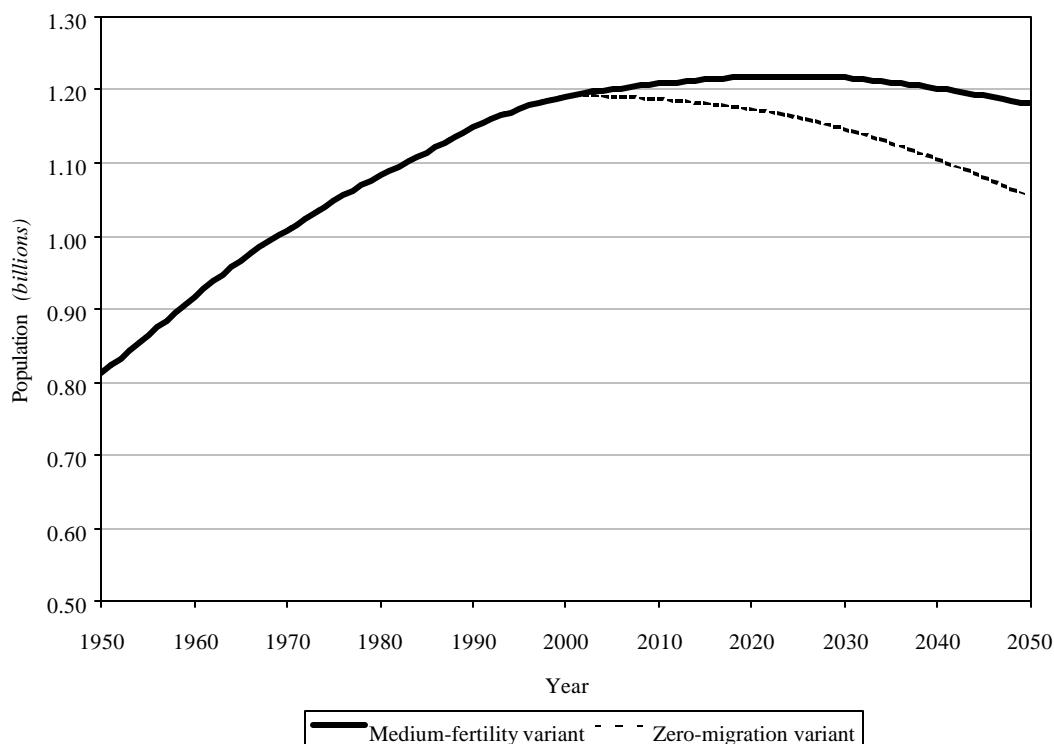
### **High-fertility assumption:**

1. Total fertility in high and medium-fertility countries remains above the total fertility in the medium-fertility assumption and eventually reaches a value 0.5 children above that reached by total fertility in the medium-fertility assumption in 2045-2050.
2. For low-fertility countries, total fertility eventually reaches a value 0.4 children above that reached by total fertility in the medium-fertility assumption in 2045-2050.

### **Low-fertility assumption:**

1. Total fertility in high and medium-fertility countries remains below the total fertility in the medium-fertility assumption and eventually reaches a value 0.5 children below that reached by total fertility in the medium-fertility assumption in 2045-2050.
2. For low-fertility countries, total fertility eventually reaches a value 0.4 children below that reached by total fertility in the medium-fertility assumption in 2045-2050.

**Figure 2. Population of more developed regions projected with and without migration, 1950-2050**



***Constant-fertility assumption:***

For each country, total fertility remains constant at the level estimated for 1995-2000.

***Instant-replacement assumption:***

For each country and each quinquennium of the projection period (2000-2050), total fertility is set to a level that ensures a net reproduction rate of one. That is, total fertility is set to the level that would ensure population replacement in the long run in light of the sex ratio at birth and level of mortality of the country concerned at each particular period.

*2. Mortality assumptions*

***Normal-mortality assumption:***

Mortality is projected on the basis of the models of change of life expectancy produced by the United Nations. In countries highly affected by the HIV/AIDS epidemic, estimates of the impact

of the disease are made explicitly through assumptions about the future course of the infection, that is, by projecting the yearly incidence of HIV infection.

***Constant-mortality assumption:***

For each country, mortality remains constant at the level estimated in 1995-2000.

*3. International migration assumptions*

***Normal-migration assumption:***

The future path of international migration is set on the basis of past international migration estimates and an assessment of the policy stance of countries with regard to future international migration flows.

***Zero-migration assumption:***

For each country, international migration is set to zero for the period 2000-2050.

Table 3 presents in a schematic way the different assumptions underlying the seven projection variants or scenarios produced under the *2000 Revision*. As indicated in table 3, the three fertility variants (low, medium and high) plus the constant-fertility and instant-replacement scenarios share the same assumptions regarding mortality and international migration. They differ among themselves only with respect to the assumptions regarding fertility. A comparison of their results allows therefore an assessment of the effects that different fertility paths have on other demographic parameters.

In addition, a constant-mortality scenario and a zero-migration scenario allow an assessment of the effects that the normal-mortality and the normal-migration assumptions have. They both have the same fertility assumption as the medium variant (i.e. the medium-fertility assumption). Furthermore, the constant-mortality scenario has the same international migration assumption as the medium variant. Consequently, the results of the constant-mortality scenario can be compared with those of the medium variant to assess the effect that changing mortality has on other demographic parameters. Similarly, the zero-migration scenario differs from the medium variant only with respect to the underlying assumption regarding migration. Therefore, the zero-migration scenario allows an assessment of the effect that the non-zero migration assumptions encompassed by the normal-migration assumption have on other demographic parameters.

### C. A COMPARISON OF THE *1998 REVISION* AND THE *2000 REVISION*

The medium variant of the *2000 Revision* projects a population of 9.3 billion for the world as a whole in 2050, a figure 413 million higher than the 8.9 billion projected by the *1998 Revision*. The major cause of this difference lies on changes made to the assumptions guiding the projection of fertility in different groups of countries. Using the naming conventions introduced in section B, the main differences in the assumptions underlying the *1998 Revision* and the *2000 Revision* are the following:

- In the *1998 Revision*, the total fertility of all the high-fertility countries was projected to reach replacement level (that is, 2.1 children per woman) on or before 2045-2050, whereas in the *2000 Revision* many of them do not reach replacement level even by 2045-2050.
- In the *2000 Revision*, more countries have net international migration that is non-zero during 2000-2050 than in the *1998 Revision*.
- In the *2000 Revision*, projections incorporating explicitly the effect of HIV/AIDS were produced for 45 countries, 11 more than in the *1998 Revision*.

Although the methodology used for the preparation of the *2000 Revision* was generally the same as that used in the *1998 Revision*, being based on

TABLE 3. PROJECTION VARIANTS AND SCENARIOS IN TERMS OF ASSUMPTIONS REGARDING FERTILITY, MORTALITY AND INTERNATIONAL MIGRATION

<i>Projection variant or scenario</i>	<i>Assumptions</i>		
	<i>Fertility</i>	<i>Mortality</i>	<i>International migration</i>
Low variant.....	Low-fertility	Normal-mortality	Normal-migration
Medium variant .....	Medium-fertility	Normal -mortality	Normal-migration
High variant .....	High-fertility	Normal -mortality	Normal-migration
Constant-fertility scenario .....	Constant-fertility	Normal -mortality	Normal-migration
Instant-replacement scenario .....	Instant-replacement	Normal -mortality	Normal-migration
Constant-mortality scenario .....	Medium-fertility	Constant -mortality	Normal-migration
Zero-migration scenario .....	Medium-fertility	Normal -mortality	Zero-migration

Source: United Nations Population Division.

the cohort component approach for 187 of the 228 countries or areas considered, the *2000 Revision* incorporated some changes and innovations that should be mentioned at the outset. They are the following:

- In the preparation of the population estimates for the *2000 Revision*, a more systematic analysis of available data on international migration was undertaken in order to produce estimates of past flows and to assess future prospects regarding levels of international migration for each country. Emphasis was placed on the analysis of data sources having information on both the origin and destination of international migrants including, in particular, the newly available historical database on refugee stocks produced by the Office of the United Nations High Commissioner for Refugees.
- In the *2000 Revision* the estimation and projection of the impact of HIV/AIDS was modified to take better account of population dynamics and of the feed-back mechanisms related to the epidemic. Assumptions about the future course of the epidemic were made on the basis of incidence taking into account the size of the population susceptible to contagion.
- In the *2000 Revision*, the populations of 187 countries with at least 140,000 inhabitants in 2000 were projected using the cohort-component method. In the *1998 Revision* the equivalent number was 184 and represented all countries with at least 150,000 inhabitants in 1995.
- In the *2000 Revision*, projections were made for the Occupied Palestinian Territory, which includes the Gaza Strip and the West Bank. In the *1998 Revision*, the population of the West Bank was projected together with that of Jordan.
- Lastly, the *1998 Revision* differs from the *2000 Revision* in the starting date of the projection period. In the *1998 Revision*, the projection period starts in 1995 mainly be-

cause the most recent data available for the estimation of past trends referred to the early 1990s. In comparison, the projection period for the *2000 Revision* begins in 2000, implying that past estimates are produced up to and including 1995-2000. Such extension of the estimation period was possible because of the availability of more information referring to 1995 or later years. Consequently, whereas in the *1998 Revision* the values for 1995-2000 resulted from the application of general assumptions made consistently for all countries, in the *2000 Revision* they represent the best estimates possible for that period on the basis of available, though often partial, information.

#### 1. Comparison with respect to the 2000 population

The differences resulting from the change in starting point for the projection period are generally small. At the world level, the *2000 Revision* estimated that there were 6.057 billion inhabitants in 2000, just 1.7 million more than the value projected by the medium-variant of the *1998 Revision*. This overall difference resulted from differences with opposite signs for the less developed and the more developed regions. Thus, whereas the population of the less developed regions was 1.8 million lower in the *2000 Revision* than projected in the *1998 Revision*, that of the more developed regions was 3.4 million higher, mostly as a result of the higher population estimated for Northern America in 2000 by the *2000 Revision* (table 4). For Europe as a whole, the estimated population in 2000 is lower according to the *2000 Revision* than according to the medium variant of the *1998 Revision* (by 1.6 million), mainly because of the lower population estimated for Eastern Europe in the *2000 Revision*.

In the less developed regions, the largest differences are found in Africa and Asia. Africa's population in 2000 is higher by 9.2 million according to the *2000 Revision* than according to the *1998 Revision*. Except for Middle Africa, all other regions of Africa had higher estimated populations in 2000 according to the *2000 Revision* than projected in the *1998 Revision*.

TABLE 4. COMPARISON OF THE POPULATION IN 2000 AND IN 2050 (MEDIUM VARIANT)  
IN THE 1998 REVISION AND THE 2000 REVISION

Major area or region	Population in 2000 (millions)		Difference in 2000 between the 2000 and the 1998 Revisions		Population in 2050 (millions)		Difference in 2050 between the 2000 and the 1998 Revisions	
	1998 Revision	2000 Revision	Absolute (millions)	Relative (percentage)	1998 Revision	2000 Revision	Absolute (millions)	Relative (percentage)
World .....	6 055	6 057	1.7	0.0	8 909	9 322	413	4.4
More developed regions .....	1 188	1 191	3.4	0.3	1 155	1 181	26	2.2
Less developed regions .....	4 867	4 865	-1.8	0.0	7 754	8 141	387	4.8
Least developed countries .....	645	658	13.5	2.1	1 495	1 830	335	18.3
Africa .....	784	794	9.2	1.2	1 766	2 000	234	11.7
Eastern Africa .....	247	250	3.3	1.3	596	691	96	13.8
Middle Africa .....	96	95	-0.2	-0.3	275	341	66	19.4
Northern Africa .....	173	174	0.9	0.5	304	304	0	-0.1
Southern Africa .....	47	50	2.7	5.4	66	57	-9	-15.1
Western Africa .....	222	224	2.5	1.1	527	608	82	13.4
Asia .....	3 683	3 672	-10.2	-0.3	5 268	5 428	160	2.9
Eastern Asia .....	1 485	1 481	-4.1	-0.3	1 676	1 665	-11	-0.7
South-central Asia .....	1 491	1 481	-9.9	-0.7	2 430	2 539	109	4.3
South-eastern Asia .....	519	522	3.6	0.7	786	800	15	1.8
Western Asia .....	188	188	0.3	0.1	377	424	47	11.2
Europe .....	729	727	-1.6	-0.2	628	603	-24	-4.0
Eastern Europe .....	307	304	-2.8	-0.9	252	223	-29	-13.1
Northern Europe .....	94	95	0.7	0.7	91	93	2	2.3
Southern Europe .....	144	145	0.8	0.5	115	117	2	2.0
Western Europe .....	183	183	-0.2	-0.1	171	171	0	0.2
Latin America and the Caribbean .....	519	519	-0.3	-0.1	809	806	-3	-0.4
Caribbean .....	38	38	-0.2	-0.5	52	50	-2	-4.4
Central America .....	135	135	-0.1	-0.1	223	220	-2	-1.0
South America .....	346	346	0.0	0.0	534	536	1	0.2
Northern America .....	310	314	4.5	1.4	392	438	46	10.5
Oceania .....	30	31	0.1	0.4	46	47	1	2.1
Australia/New Zealand .....	23	23	0.2	0.7	31	31	0	-0.2
Melanesia .....	6	6	0.0	0.2	13	14	1	10.5
Micronesia .....	1	1	0.0	-5.2	1	1	0	-23.0
Polynesia .....	1	1	0.0	-4.0	1	1	0	-17.9

In Asia, the lower 2000 population estimated by the *2000 Revision* resulted mostly from lower estimates for the populations of Eastern Asia and South-central Asia. Since Asia's 2000 population was estimated to be 10.2 million lower than that produced by the *1998 Revision*,

that difference more than counterbalanced the larger population estimated for Africa. For Oceania and Latin America and the Caribbean, the differences between the 2000 population in the two *Revisions* were considerably smaller in absolute terms.

Differences at the country level are even more varied. Among the 228 countries or areas considered, 206 had a population in 2000 according to the *2000 Revision* that differed by more than 100 persons from that projected by the medium variant of the *1998 Revision*. For 113 countries or areas, the 2000 population in the *2000 Revision* was lower than that in the *1998 Revision*, and for 93 it was higher. However, large differences in absolute terms occurred in relatively few countries. Table 5 shows all countries whose 2000 population according to the *2000 Revision* differs in absolute terms by more than 1 million persons from that projected by the medium variant of the *1998 Revision*. There are 14 countries where the difference is positive and 11 where the difference is

negative. In most of these cases, the differences between the two *Revisions* stem from a reassessment of past trends in light of new information that introduced changes not only relative to the 2000 population but also for estimates of the population at earlier periods. Thus, in all but four of these countries, the 1990 population according to the *2000 Revision* differed from that of the *1998 Revision* by at least 500,000 persons in absolute terms. The four exceptions were Algeria, China, Myanmar and the Russian Federation. For Algeria, data from the 1998 census, considered for the first time in the *2000 Revision*, indicated that fertility had been lower during 1990-2000 than in the *1998 Revision* and that emigration had been higher thus producing a smaller population in

TABLE 5. COUNTRIES WHOSE 2000 POPULATION ACCORDING TO THE *2000 REVISION* DIFFERS BY MORE THAN ONE MILLION PERSONS FROM THAT PROJECTED BY THE MEDIUM VARIANT OF THE *1998 REVISION*

<i>Country or area</i>	<i>Population in 2000, 2000 Revision</i>	<i>Difference between 2000 Revision and 1998 Revision</i>
1 Bangladesh.....	137.4	8.3
2 United States of America.....	283.2	4.9
3 South Africa.....	43.3	2.9
4 Iran (Islamic Republic of).....	70.3	2.6
5 Nigeria .....	113.9	2.4
6 Myanmar.....	47.7	2.1
7 Cambodia.....	13.1	1.9
8 Sudan .....	31.1	1.6
9 United Republic of Tanzania.....	35.1	1.6
10 Morocco.....	29.9	1.5
11 Uganda .....	23.3	1.5
12 Thailand .....	62.8	1.4
13 Zambia .....	10.4	1.3
14 Côte d'Ivoire .....	16.0	1.2
1 Pakistan.....	141.3	-15.2
2 India .....	1 008.9	-4.7
3 China .....	1 275.1	-2.4
4 Democratic People's Republic of Korea ...	22.3	-1.8
5 Jordan.....	4.9	-1.8
6 Viet Nam.....	78.1	-1.7
7 Russian Federation.....	145.5	-1.4
8 Mozambique .....	18.3	-1.4
9 Somalia .....	8.8	-1.3
10 Saudi Arabia .....	20.3	-1.3
11 Algeria .....	30.3	-1.2

2000 than projected by the *1998 Revision*. For China, the difference was the result of higher emigration during 1990-2000 estimated in the *2000 Revision*. In the case of Myanmar, the difference in the 2000 population resulted in large part from higher total fertility estimates in the *2000 Revision* than in the *1998 Revision*, and in the case of the Russian Federation, lower fertility during 1995-2000 and higher emigration during 1990-2000 in the *2000 Revision* contributed to produce a lower 2000 population than the medium variant of the *1998 Revision*.

Among the other 21 countries with large discrepancies in the 2000 population, Bangladesh and the United States displayed the largest positive differences, whereas Pakistan and India had the largest negative ones. In all these countries, past population estimates were revised in light of new information and the analysis of past trends. In the case of Bangladesh, the recent stagnation of fertility levels led to an upward revision of the fertility estimates for 1990-2000 in the *2000 Revision* and emigration levels for the same period were revised downward with respect to those in the *1998 Revision*. For the United States, the need to match the preliminary results of the 2000 census led to an upward revision of immigration levels for 1990-2000 and of the 1990 population. In the case of Pakistan, the results of the 1997 census indicated that the *1998 Revision* had overestimated the population in 1990 and it was therefore revised downward. In addition, emigration levels during 1990-2000 were increased, life expectancy estimates were decreased and fertility levels were revised upward. For India, the downward revision of the population was largely the result of higher emigration levels in the *2000 Revision*.

In addition to Bangladesh, Myanmar and the United States, 11 other countries displayed large positive differences with respect to the 2000 population. In seven of them, fertility levels in 1990-2000 were estimated to be higher in the *2000 Revision* than in the *1998 Revision*: Cambodia, Iran, Morocco, Nigeria, Sudan, Thailand and Zambia. Furthermore, higher net migration gains were estimated for Côte d'Ivoire, South Africa, Thailand, the United Republic of Tanzania and Zambia. For Uganda, lower mortality levels in the *2000 Revision*, estimated as a result of the de-

creasing proportion of persons infected by HIV, led to higher estimates of the 2000 population.

In addition to Algeria, China, India, Pakistan and the Russian Federation, the 2000 population of six other countries was lower in the *2000 Revision* than in the *1998 Revision* (table 5). In the case of Jordan the difference stemmed from the exclusion of the West Bank in the *2000 Revision* as compared to the *1998 Revision*. For the Democratic People's Republic of Korea, a downward revision of the 1990 population resulting from better estimates of population dynamics in the country, together with higher estimates of mortality during 1990-2000, produced a lower population in 2000 according to the *2000 Revision*. For Mozambique, Saudi Arabia, Somalia and Viet Nam as well, revisions of past population dynamics led to a lower 1990 population in the *2000 Revision* than in the *1998 Revision*. In the cases of Somalia and Viet Nam, higher levels of emigration after 1980 contributed to reduce the population in both 1990 and 2000. For Saudi Arabia, a reduction of the net migrant gains during the 1980s was largely responsible for the differences observed. In the case of Mozambique, changes in the estimates of net migration and higher mortality levels estimated in the *2000 Revision* for the 1990s were responsible for the resulting difference in population size in 2000.

In sum, the largest differences between 2000 population of countries according to the *2000 Revision* and according to the *1998 Revision* result from revisions made to several of the components of population growth. The re-estimation of net migration, in particular, often contributed to the differences observed. This finding reflects both the increasing importance of international migration as a component of population growth and the high levels of uncertainty surrounding the net migration estimates available. As more information on levels and trends of international migration is gathered and analysed, further revisions of past estimates will continue to be necessary. The other important source of change involves revisions of past fertility levels and trends. Both the paucity of recent information for many countries and the inconsistencies found in the data available increase the uncertainty regarding recent estimates and demand their reconsideration as new information

becomes available. The changes detected from one *Revision* to the next are largely the result of such ongoing analysis.

## 2. Comparison with respect to the 2050 population

As already noted, the medium variant of the 2000 *Revision* produced a 2050 population of 9.3 billion for the world as a whole, 413 million above the projected population of 8.9 billion yielded by the medium variant of the 1998 *Revision* (table 4). Most of that difference stems from the higher population projected in the 2000 *Revision* for the less developed regions and in particular for Africa and Asia, whose 2050 populations are, respectively, 234 million and 160 million higher according to the 2000 *Revision* than according to the 1998 *Revision*. The third most important difference is for the projected population of Northern America, which is 46 million higher in the 2000 *Revision*. In contrast, the population of Europe is 24 million lower in the 2000 *Revision* than in the 1998 *Revision*, and the populations of

Latin America and the Caribbean and Oceania are very similar to the ones projected by the 1998 *Revision*.

Within Africa, the largest differences are found in Eastern Africa, Western Africa and Middle Africa, regions where many countries have yet to show clear signs of experiencing a reduction of fertility or whose fertility levels have just begun to decline. Consequently, high fertility levels prevail today and, although they are projected to decline markedly according to the 2000 *Revision*, the pace of decline expected does not necessarily permit the attainment of replacement level fertility by 2045-2050. Table 6 lists the countries whose total fertility is not projected to reach replacement level by 2045-2050 in the 2000 *Revision* but whose total fertility was projected to decline to 2.1 children per woman in the 1998 *Revision*. Clearly, the change of assumptions regarding the future course of fertility results in more rapid population growth and a significantly larger 2050 population in the 2000 *Revision*. Thus, the 14 countries of Africa listed in table 6 are projected to have 188 million

TABLE 6. COMPARISON OF TOTAL FERTILITY IN 2045-2050 AND THE PROJECTED POPULATION IN 2050 ACCORDING TO THE MEDIUM VARIANTS OF THE 1998 AND THE 2000 REVISIONS

Major area and country	Total fertility 2045-2050			Population in 2050 (millions)		Difference (millions)
	1998 Revision	2000 Revision	Difference	1998 Revision	2000 Revision	
<b>Africa</b>						
Niger .....	2.10	3.82	1.72	32.0	51.9	19.8
Somalia .....	2.10	3.27	1.17	31.8	40.9	9.1
Angola.....	2.10	3.26	1.16	36.9	53.3	16.4
Uganda.....	2.10	2.85	0.75	64.9	101.5	36.7
Mali.....	2.10	2.85	0.75	31.4	41.7	10.4
Burkina Faso.....	2.10	2.82	0.72	35.5	46.3	10.8
Burundi.....	2.10	2.81	0.71	15.6	20.2	4.6
Liberia.....	2.10	2.81	0.71	10.0	14.4	4.4
Ethiopia.....	2.10	2.80	0.70	169.4	186.5	17.0
Malawi.....	2.10	2.63	0.53	29.0	31.1	2.1
Democratic Rep. the Congo .....	2.10	2.36	0.26	160.4	203.5	43.2
Chad.....	2.10	2.35	0.25	19.7	27.7	8.0
Sierra Leone.....	2.10	2.34	0.24	11.0	14.4	3.4
Congo.....	2.10	2.33	0.23	8.6	10.7	2.1
<b>Asia</b>						
Yemen .....	2.10	3.35	1.25	58.8	102.4	43.6
Afghanistan.....	2.10	2.82	0.72	61.0	72.3	11.3

additional inhabitants in 2050 according to the *2000 Revision* than according to the *1998 Revision*.

In Asia, the largest differences between the *2000 Revision* and the *1998 Revision* medium-variant projections to 2050 occur in South-central Asia and in Western Asia. In South-central Asia, both the 2000 populations of Bangladesh and India and their projected fertility are somewhat higher in the *2000 Revision* than in the *1998 Revision*, with the result that the 2050 populations of those two countries exceed by 53 million and 43 million, respectively, their projected populations in the *1998 Revision*. Moreover, the population of Afghanistan is also projected to be considerably higher in the *2000 Revision* because fertility levels for that country are projected to remain well above replacement level during 2000-2050 (table 6). Taken together, the cases of Afghanistan, Bangladesh and India account for 107 million of the 109 million by which the 2050 population of South-central Asia in the *2000 Revision* exceeds that of the *1998 Revision*.

In the case of Western Asia, the higher 2050 population projected by the *2000 Revision* is largely the result of the projections made for the population of Yemen whose fertility levels are not expected to reach replacement level during 2000-2050 (table 6). Consequently, the 2050 population of Yemen is 43 million higher in the *2000 Revision* than in the *1998 Revision*.

For Eastern Asia, it is worth noting that the somewhat lower population projected in the *2000 Revision* is largely the result of a reduction in the 2050 population projected for China (by nearly 16 million) and the latter is related to the higher net emigration levels projected for that country during 2000-2050.

In the case of Northern America, the larger population projected to 2050 in the *2000 Revision* is the result of the revised 2000 population for the United States and of the increases expected thereafter in the population of that country, largely because of the maintenance of a slightly higher total fertility during 2000-2050 and a higher and positive level of net international migration than projected in the *1998 Revision*.

The differences in the case of Europe contrast markedly with those arising for Northern America. Both Europe as a whole and Eastern Europe in particular are expected to have a lower population in 2050 according to the *2000 Revision* than according to the *1998 Revision*. That reduction is largely attributable to the lower levels of fertility projected during 2000-2040 for Eastern Europe in the *2000 Revision*.

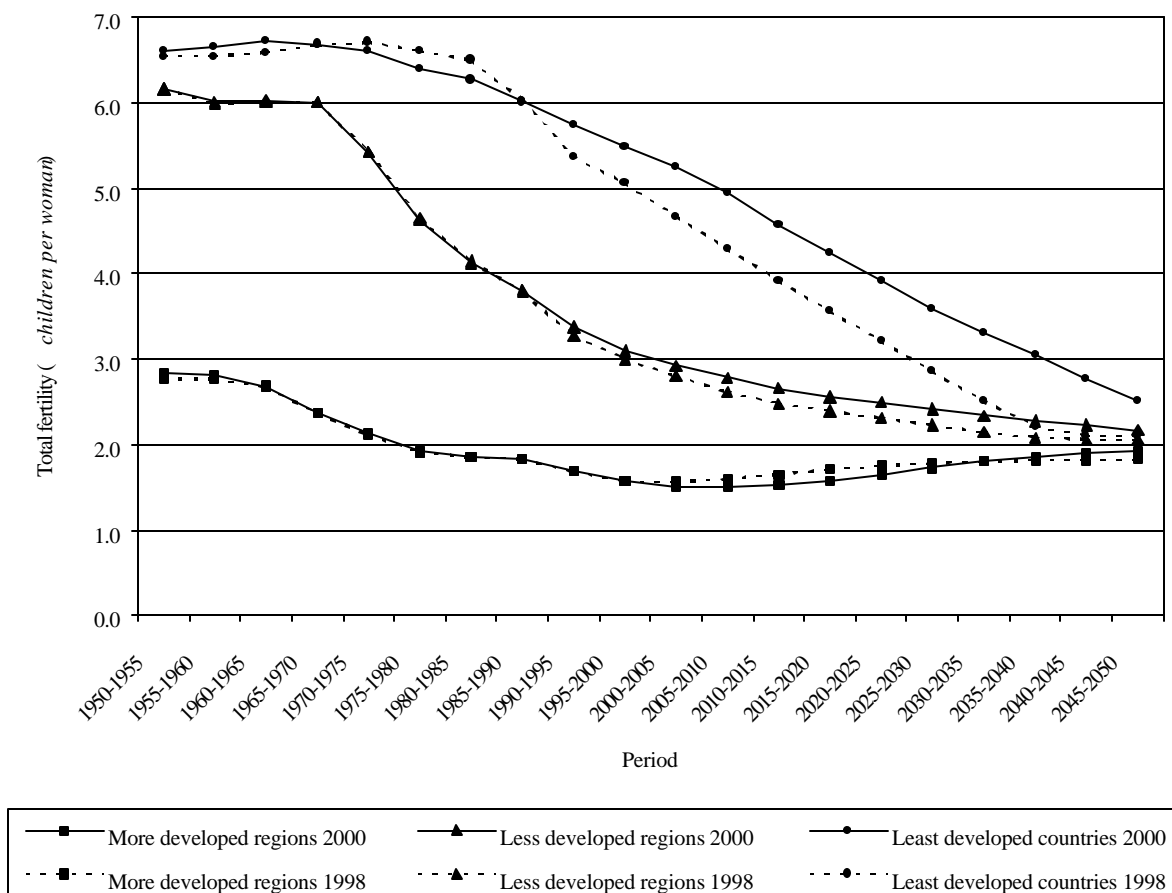
As in the case of the estimated population in 2000, changes in the projected population to 2050 from one *Revision* to another arise because of changes made in the components of population growth. It is of interest, therefore, to discuss the differences in those components over the projection period.

### 3. *Comparison of the components of population growth*

The major differences between the projected populations in the *1998* and *2000 Revisions* stem from changes in assumptions made, especially with regard to the future paths of fertility in high-fertility countries. Figure 3 illustrates the effects of those changes at the level of the major development groups, namely, the more developed regions, the less developed regions and the least developed countries. The latter group includes the majority of high-fertility countries and is therefore most affected by the higher fertility projected for those countries in the *2000 Revision*. As table 7 indicates, the total fertility of the least developed countries estimated for 1995-2000 is about 0.4 children higher in the *2000 Revision* than in the *1998 Revision*, and that difference increases to about 0.8 children per woman during the projection period (figure 3). However, by 2045-2050, the total fertility of the least developed countries is again about 0.4 children higher in the *2000 Revision* than in the *1998 Revision* (2.5 children per woman versus 2.1 children per woman).

Although the least developed countries are part of the less developed regions, their effect in increasing the fertility of the latter group is not large. Thus, for 1995-2000, the total fertility of the less developed regions is just 0.1 children higher in the *2000 Revision* than in the *1998 Revision* (3.1 children per woman versus 3 children

Figure 3. Total fertility in the 1998 and 2000 Revisions compared, estimates and medium variant, 1950-2050



per woman). That difference increases to about 0.2 children during the projection period but by 2045-2050 it amounts again to about 0.1 children per woman, making the total fertility of the less developed regions 2.17 children per woman in the 2000 Revision instead of 2.06 as in the 1998 Revision.

For the more developed regions, total fertility in the 2000 Revision is lower over much of the projection period than that of the 1998 Revision, but by 2045-2050, the medium variant of the 2000 Revision shows a slightly higher total fertility for the more developed regions than that of the 1998 Revision: 1.92 children per woman versus 1.82 children per woman. As a consequence of the changes in the future paths of fertility for the development groups, the total fertility of the world in the 2000 Revision remains between 0.1 and 0.2

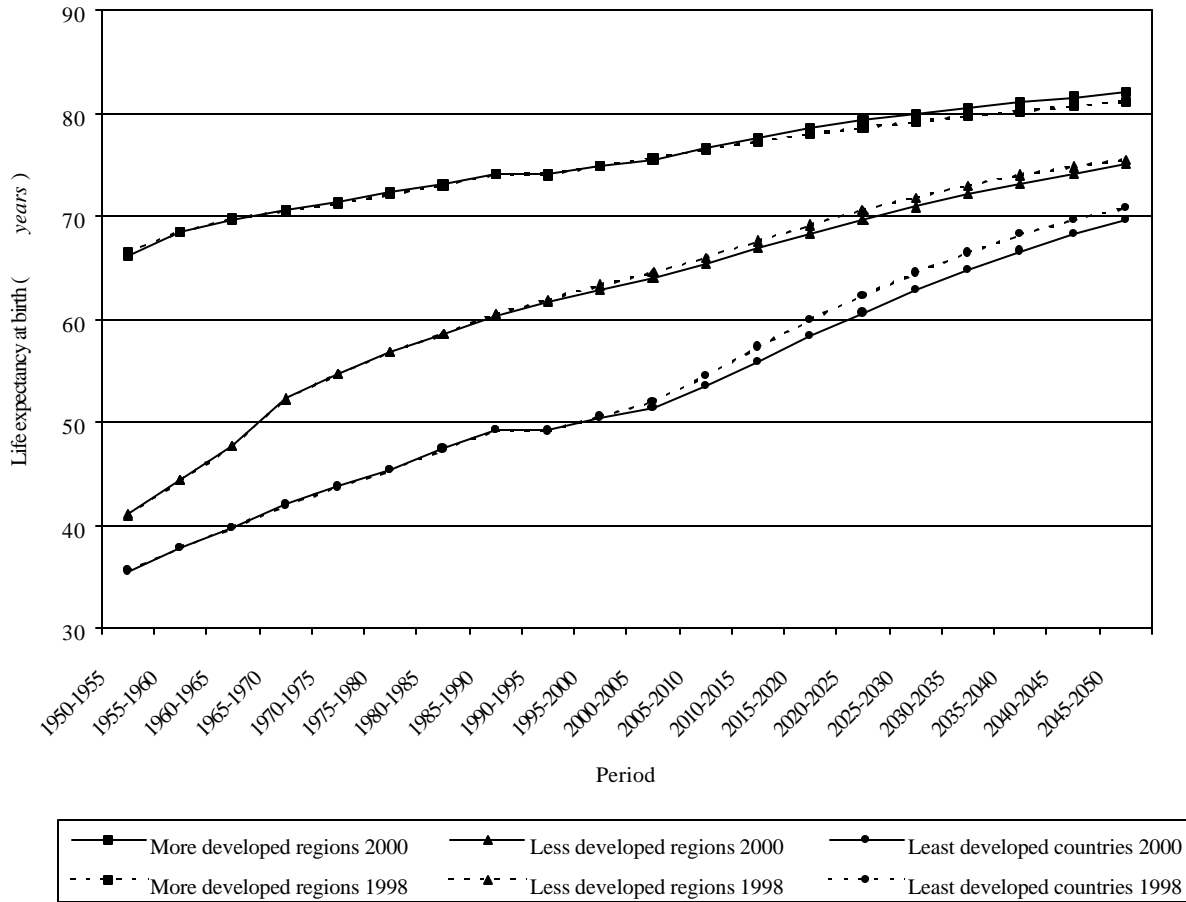
children above that of the 1998 Revision and it is that consistent positive difference that is largely responsible for the higher population projected by the 2000 Revision.

There are also differences between the Revisions in terms of future life expectancy. Figure 4 displays the graphical comparison of the assumptions regarding life expectancy made for the major development groups. Life expectancy estimates from 1950 to about 1990 are nearly the same for the 1998 and the 2000 Revisions. However, differences are evident after 2000. For both the least developed countries and the less developed regions, the 2000 Revision projects lower levels of life expectancy during most of the projection period than those projected by the 1998 Revision. This downward revision of the estimates is mostly driven by the impact of the growing AIDS

TABLE 7. COMPARISON OF ESTIMATED AND PROJECTED TOTAL FERTILITY  
IN THE 1998 AND 2000 REVISIONS, 1995-2000 AND 2045-2050

Major area or region	Total fertility in 1995-2000		Difference in 1995-2000 between the 2000 and the 1998 Revisions		Total fertility in 2045-2050		Difference in 2045-2050 between the 2000 and the 1998 Revisions	
	1998 Revision	2000 Revision	Absolute (millions)	Relative (percentage)	1998 Revision	2000 Revision	Absolute (millions)	Relative (percentage)
World .....	2.71	2.82	0.10	3.6	2.03	2.15	0.11	5.3
More developed regions .....	1.57	1.57	0.00	0.1	1.82	1.92	0.10	5.3
Less developed regions .....	3.00	3.10	0.10	3.2	2.06	2.17	0.11	5.0
Least developed countries .....	5.05	5.47	0.42	7.6	2.10	2.51	0.41	16.5
Less developed regions, excluding least developed countries .....	2.72	2.78	0.06	2.1	2.05	2.05	0.00	0.2
Africa .....	5.06	5.27	0.22	4.1	2.10	2.39	0.29	12.2
Eastern Africa .....	5.79	6.09	0.31	5.0	2.10	2.51	0.41	16.2
Middle Africa .....	6.17	6.41	0.24	3.7	2.10	2.46	0.36	14.6
Northern Africa .....	3.58	3.58	-0.01	-0.2	2.10	2.10	0.00	0.0
Southern Africa .....	3.43	3.29	-0.14	-4.2	2.10	2.10	0.00	0.0
Western Africa .....	5.47	5.95	0.47	8.0	2.10	2.36	0.26	11.1
Asia .....	2.60	2.70	0.10	3.7	2.03	2.08	0.04	2.0
Eastern Asia .....	1.77	1.76	-0.01	-0.4	1.89	1.90	0.01	0.5
South-central Asia .....	3.36	3.58	0.22	6.2	2.10	2.12	0.02	1.0
South-eastern Asia .....	2.69	2.83	0.14	4.9	2.08	2.08	0.00	-0.1
Western Asia .....	3.77	3.86	0.09	2.2	2.09	2.39	0.30	12.7
Europe .....	1.42	1.41	-0.01	-0.9	1.78	1.81	0.03	1.6
Eastern Europe .....	1.36	1.28	-0.08	-6.3	1.73	1.84	0.11	6.1
Northern Europe .....	1.69	1.67	-0.03	-1.5	1.91	1.94	0.03	1.8
Southern Europe .....	1.31	1.32	0.01	0.7	1.74	1.73	-0.01	-0.4
Western Europe .....	1.48	1.49	0.01	0.9	1.79	1.76	-0.03	-1.9
Latin America and the Caribbean .....	2.69	2.69	-0.01	-0.3	2.09	2.10	0.00	0.0
Caribbean .....	2.55	2.50	-0.05	-1.8	2.03	2.03	0.00	-0.2
Central America .....	3.05	3.04	0.00	-0.1	2.10	2.10	0.00	0.0
South America .....	2.58	2.57	-0.01	-0.2	2.10	2.10	0.00	0.0
Northern America .....	1.94	2.00	0.05	2.7	1.90	2.08	0.18	8.8
Oceania .....	2.38	2.41	0.03	1.2	1.99	2.06	0.07	3.4
Australia/New Zealand .....	1.83	1.80	-0.02	-1.3	1.93	2.03	0.10	5.2
Melanesia .....	4.28	4.39	0.11	2.6	2.10	2.10	0.00	0.0
Micronesia .....	4.08	4.26	0.18	4.2	2.04	2.09	0.05	2.6
Polynesia .....	3.38	3.22	-0.16	-5.0	2.10	2.09	-0.01	-0.6

Figure 4. Life expectancy in the 1998 and 2000 Revisions compared, 1950-2050



epidemic and the increasing number of countries that are highly affected by the disease.

In the more developed regions, in contrast, the 2000 Revision projects a slightly higher life expectancy for most of the projection period than that projected by the 1998 Revision. The increase in projected life expectancy is particularly marked in Western Europe, Northern Europe and Northern America (table 8) and it results in nearly a year difference between the 2045-2050 life expectancy projected by the 2000 Revision and that of the 1998 Revision: 82.1 years versus 81.2 years. However, it bears noting that not all regions of the developed world were expected to do better in the 2000 Revision than in the 1998 Revision: the life expectancy of Eastern Europe is projected to be considerably lower in the 2000 Revision than in the 1998 Revision, although the difference between the two narrows toward the end of the pro-

jection period. Yet, by 2045-2050, the life expectancy of Eastern Europe is still projected to be lower in the 2000 Revision than in the 1998 Revision.

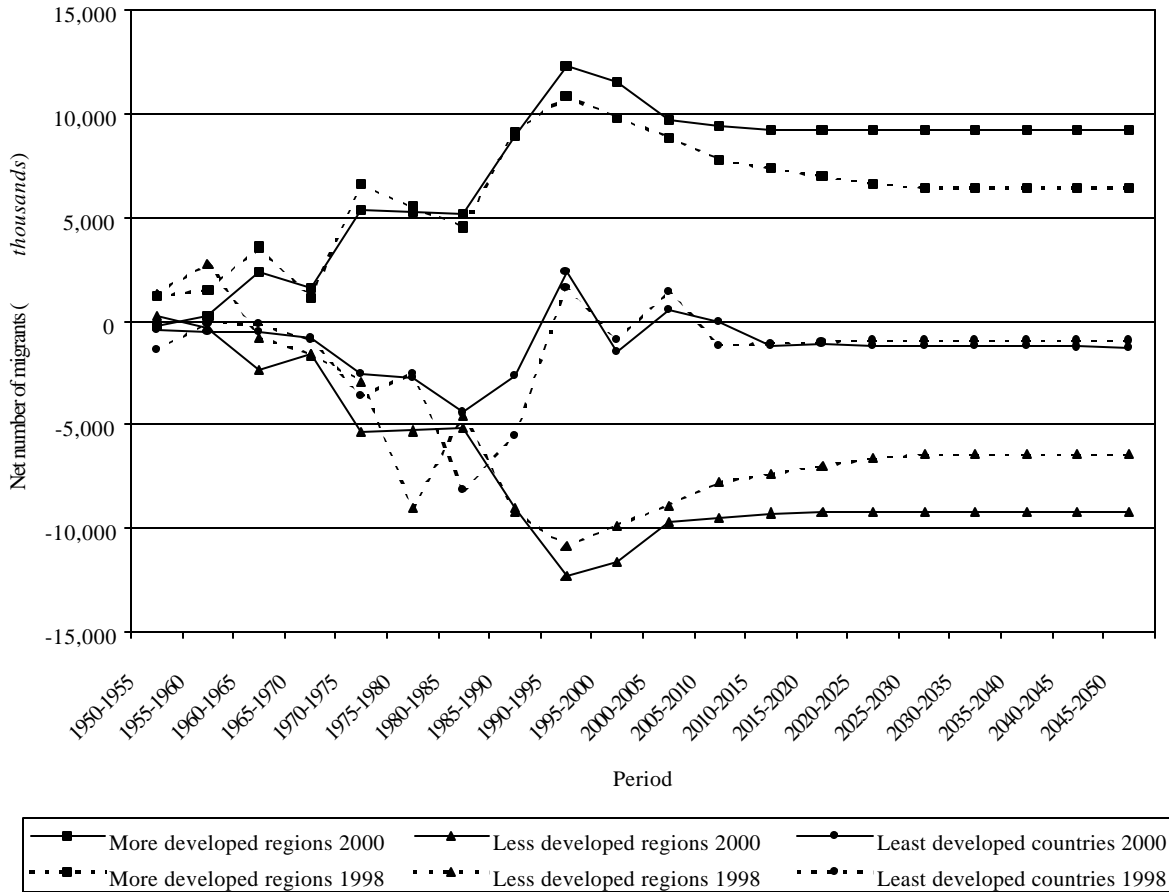
The third component of population growth, international migration, also changed considerably from the 1998 to the 2000 Revision. As figure 5 illustrates, the 1998 Revision projected considerably lower levels of net immigration to the more developed regions than the 2000 Revision and, consequently, lower absolute levels of net emigration from the less developed regions, since both numbers must cancel each other out. For the least developed countries, the levels of emigration projected were similar between the two Revisions.

As a consequence of the differences in the future paths of fertility, mortality and international migration projected by the medium variants of the

TABLE 8. COMPARISON OF ESTIMATED AND PROJECTED LIFE EXPECTANCY AT BIRTH  
IN THE 1998 AND 2000 REVISIONS, 1995-2000 AND 2045-2050

Major area or region	Life expectancy in 1995-2000		Difference in 1995-2000 between the 2000 and the 1998 Revisions		Life expectancy in 1995-2000		Difference in 2045-2050 between the 2000 and the 1998 Revisions	
	1998 Revision	2000 Revision	Absolute (millions)	Relative (percentage)	1998 Revision	2000 Revision	Absolute (millions)	Relative (percentage)
	World .....	65.4	65.0	-0.4	-0.6	76.3	76.0	-0.3
More developed regions .....	74.9	74.9	-0.1	-0.1	81.2	82.1	0.9	1.1
Less developed regions .....	63.3	62.9	-0.4	-0.7	75.5	75.0	-0.5	-0.7
Least developed countries .....	50.5	50.3	-0.2	-0.4	70.9	69.7	-1.2	-1.8
Less developed regions, excluding least developed countries .....	65.8	65.5	-0.3	-0.5	76.6	76.6	0.0	0.0
Africa .....	51.4	51.4	0.0	0.0	70.4	69.5	-0.9	-1.2
Eastern Africa .....	45.4	45.7	0.2	0.5	67.9	67.2	-0.7	-1.0
Middle Africa .....	50.1	48.9	-1.3	-2.6	71.3	69.0	-2.3	-3.3
Northern Africa .....	64.8	64.6	-0.3	-0.4	77.1	77.0	-0.1	-0.1
Southern Africa .....	54.4	55.4	1.0	1.7	63.3	66.2	2.9	4.4
Western Africa .....	49.9	50.0	0.1	0.2	70.0	69.0	-1.0	-1.4
Asia .....	66.3	65.8	-0.5	-0.8	77.2	77.1	-0.1	-0.1
Eastern Asia .....	71.0	70.9	-0.1	-0.1	79.3	79.7	0.3	0.4
South-central Asia .....	62.3	61.5	-0.9	-1.4	75.3	74.9	-0.4	-0.5
South-eastern Asia .....	65.7	65.3	-0.4	-0.6	77.5	77.3	-0.2	-0.3
Western Asia .....	68.0	67.9	-0.2	-0.2	78.6	78.5	-0.1	-0.1
Europe .....	73.3	73.2	-0.1	-0.1	80.3	80.8	0.5	0.6
Eastern Europe .....	68.5	68.2	-0.3	-0.4	78.0	77.8	-0.2	-0.2
Northern Europe .....	76.5	76.7	0.2	0.3	81.9	82.7	0.8	1.0
Southern Europe .....	76.9	77.0	0.0	0.1	81.9	81.9	0.0	0.0
Western Europe .....	77.6	77.7	0.1	0.2	82.2	83.5	1.3	1.6
Latin America and the Caribbean .....	69.2	69.3	0.0	0.0	77.6	77.8	0.2	0.2
Caribbean .....	68.6	67.5	-1.1	-1.6	77.4	75.1	-2.2	-3.0
Central America .....	71.2	71.0	-0.2	-0.2	78.4	78.3	-0.2	-0.2
South America .....	68.7	68.9	0.2	0.3	77.3	77.8	0.5	0.7
Northern America .....	76.9	76.7	-0.2	-0.3	81.9	82.7	0.8	0.9
Oceania .....	73.8	73.5	-0.3	-0.4	80.7	80.6	-0.2	-0.2
Australia/New Zealand .....	78.0	78.4	0.4	0.5	82.6	82.8	0.3	0.3
Melanesia .....	61.0	58.7	-2.3	-4.0	75.7	74.4	-1.2	-1.7
Micronesia .....	69.4	71.8	2.4	3.4	78.3	79.5	1.1	1.4
Polynesia .....	71.6	70.3	-1.3	-1.8	79.9	79.1	-0.8	-1.0

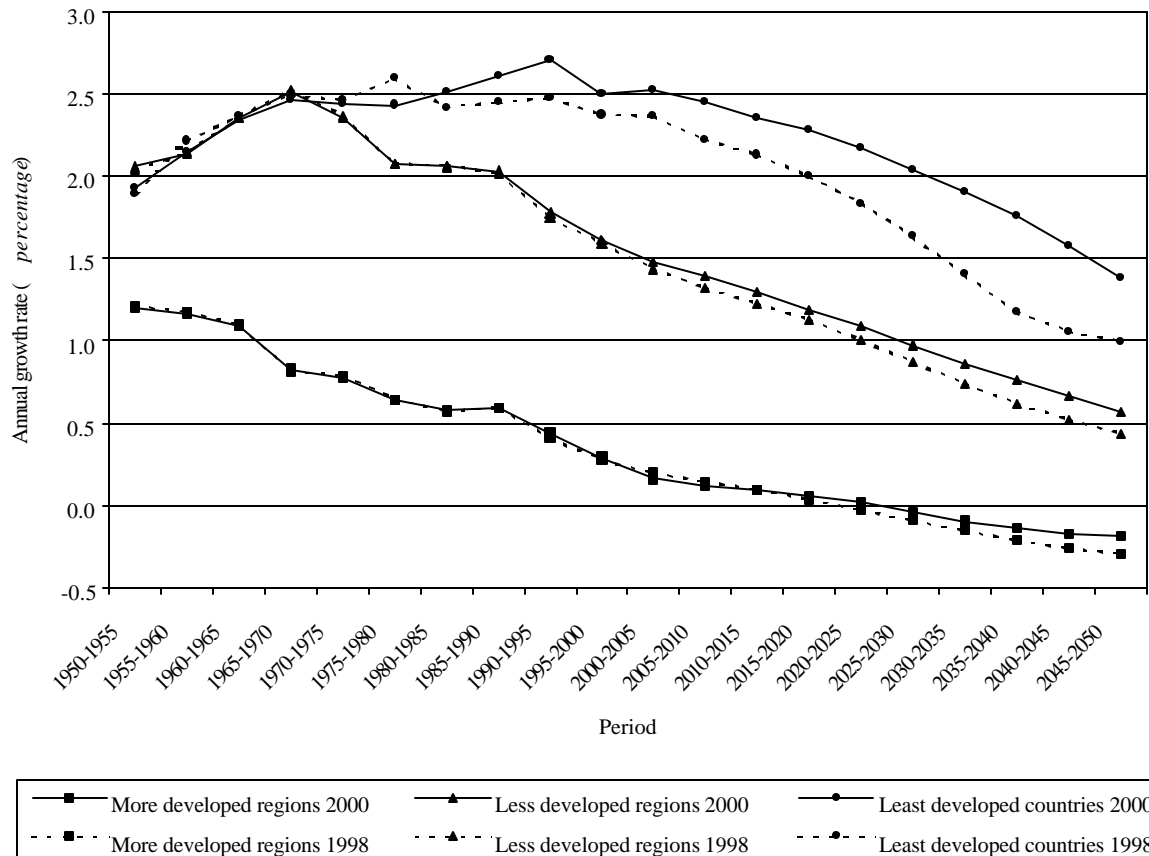
Figure 5. Net international migration in the 1998 and 2000 Revisions compared, 1950-2050



1998 and 2000 Revisions, respectively, the average annual growth rates in the two Revisions also differ over the projection period. Figure 6 illustrates the differences involved. The largest ones are evident for the group of least developed countries, whose projected growth rate is between 0.2 and 0.6 percentage points higher during the projection period according to the 2000 Revision than according to the 1998 Revision. Although those differences affect the ones observed for the group of less developed regions as a whole, they are considerably dampened in the larger group. Thus, for the less developed regions the average annual growth rate in the 2000 Revision is between 0.05 and 0.14 percentage points higher than the values projected in the 1998 Revision. Similar differences are noticeable in the case of the more developed regions after 2015. However, between 2000 and 2015, the growth rates projected under

the 2000 Revision for the more developed regions are lower than those projected under the 1998 Revision, as a result of maintaining over a longer period the very low fertility levels that are now being experienced by many developed countries. At the world level, the population growth rates projected by the 2000 Revision are similar to those of the less developed regions and deviate by at most 0.14 percentage points from those projected by the 1998 Revision. By 2045-2050, the projected rate of growth of the world's population is 0.47 per cent per year in the 2000 Revision instead of 0.34 per cent as projected in the 1998 Revision. Similar upward revisions affect the growth rates of the more developed and the less developed regions, for which the 2000 Revision's values are -0.19 per cent per year and 0.57 per cent per year, respectively, instead of -0.29 per cent per year and 0.44 per cent per year as in the 1998 Revision.

Figure 6. Average annual growth rate in the 1998 and 2000 Revisions compared, estimates and medium variant, 1950-2050



Aside from documenting the major differences between the two *Revisions*, these comparisons underscore the crucial importance of reducing population growth as early as possible since even the very modest differences in growth rates existing between the 1998 and the 2000 *Revisions* lead to striking differences in population size over the medium term (0.4 billion additional persons by 2050).

#### D. ORGANIZATION OF THE REST OF THE REPORT

The following chapters will present a detailed analysis of the results of the 2000 *Revision*. Their content is summarized below.

Chapter I is devoted to a discussion of the transition to low fertility. It reviews the situation in the past and makes an assessment of future prospects.

Chapter II focuses on the transition to low mortality and discusses the variation in projected levels of mortality at various levels of aggregation.

Chapter III is devoted to an analysis of the demographic impact of HIV/AIDS.

Chapter IV discusses the estimates and projections of net migration.

Chapter V focuses on the changing size and distribution of the population, analysing the dynamics of ageing populations.

Chapter VI presents in detail the methodology used in producing the 2000 *Revision* of the official United Nations population estimates and projections.

Chapter VII is devoted to a detailed description of the sources of information used as basis for revising the estimates for each country.