

Chapter I

THE DEMOGRAPHIC LANDSCAPE

1. By the end of the millennium, the world population had reached 6 billion persons. This is more than twice the world population half a century ago: the number of people was just 2.5 billion in 1950. These last 50 years have witnessed the highest rate of world population growth that has ever occurred or is ever likely to occur again. The high growth was produced during a period when humankind benefited from substantial gains in life expectancy - with children surviving in increasingly larger numbers to reach parenthood - but was not yet fully engaged in the global fertility decline that is now clearly under way¹. If current projections hold, the total number of persons in the world will continue to grow in the next 50 years, but only enough to add half again of the current population by 2050, when world population is expected to reach just over 9 billion.

2. The trajectory of the world population since 1950 has been influenced by several remarkable changes. Both mortality and fertility have undergone extraordinary and unique declines to new levels. In both cases, however, reversals have occurred that have had striking effects, although they have not altered the basic trend toward decline.

3. The last 20 years have played out and confirmed the trends in population growth, fertility and mortality that were already clearly under way two decades ago. When the peak in world population growth was reached in the late 1960s, it had the momentum to double in 35 years. Thereafter, the global decline could be discerned. The decline stalled between the 1970s and the late 1980s, when the world population could still double in 40 years, giving high levels of growth for another 15 vigorous years, but the longer-term trend to decline was decidedly in view. Countries of both the more developed regions and the less developed regions were showing the downward trend, and only the least developed countries had yet to join the global decline, in the 1990s.

4. At the same time that trends between 1980 and 2000 confirmed the tendencies established earlier, they also allowed differences between more developed, less developed and least developed regions to emerge more clearly, as each group of

countries established its pace of mortality decline, fertility decline and consequent population growth.

5. Differences in the rate of growth between developing and least developed countries were less than half of 1 per cent in 1980. Developing countries as a whole then engaged in a sustained decline in their rates of growth, that dominated and therefore paralleled the decline in the world growth rate. Growth rates of the least developed countries stayed high, however, and the gap between the least developed and all less developed countries grew, until it had doubled by 2000, after 20 years (see figure I.1).

6. A growing *divergence* between countries of the less developed regions as a whole and of the least developed regions characterizes their patterns of mortality and of fertility decline between 1980 and 2000. Over the same period, however, the countries of the less developed regions showed increasing *convergence* with the mortality and fertility patterns of the countries of the more developed regions.

7. In the 1950s, life expectancy, a major measure of mortality, ranged narrowly from an average of about 35 years to an average of about 40 years for the least and less developed countries, respectively. At the time, average life expectancy in the more developed countries had already reached 65 years. By 1980, the average life expectancy of least developed countries had risen rapidly but had still reached only about 48 years, whereas the life expectancy for less developed countries as a group was about 59 years. By that time, also, life expectancy for the more developed countries had increased slowly to about 73 years. By 2000, the gap between countries of the more and the less developed regions as a whole had *fallen* to about a dozen years: their expectancies had reached about 75 and 63 years, respectively, whereas increased life expectancy in the least developed countries slowed measurably after the mid-1980s, and the gap between the least developed and the less developed countries as a whole had *risen* to over a dozen years, at about 50 and 63 years, respectively (see figure I.2).

8. These long-term trends in mortality decline were marked by two reversals that substantially altered the trends in mortality in the last decade of the

Figure I.1

Figure I.2

twentieth century in both the more developed regions and the least developed regions.

9. The major reason for the reversal in the more developed regions was the remarkable downturn in life expectancy that occurred in the republics of the former Soviet Union as well as in parts of Eastern Europe. The trend was clearly under way in the former Soviet Union by 1986 or 1987 and particularly affected men in the prime ages; in the Russian Federation, where the trend was perhaps most remarkable, the life expectancy of the male population fell from nearly 65 years in 1986 to about 58 years in 1994. Female life expectancy did not decline so sharply, but it stagnated over the same period, from the late 1980s to about 1990, and then declined in these countries about 2 to 3 years in the period 1990-1995. The causes for these excess deaths were a sudden rise in circulatory disease mortality, accidents and violence, and a rise in deaths due to preventable and treatable communicable diseases, including tuberculosis and pneumonia, as well as deaths to malignant neoplasms in general.²

10. As a result, life expectancy was unchanged in the more developed regions as a whole from the late 1980s to the mid-1990s, arresting the long-term trend to improvements in the regions that had, as a group, the greatest resources for health and survival. Even worldwide trends to increased life expectancy were visibly slowed during this period by the reversal in the more developed regions, and by what was happening in the least developed regions in particular sub-Saharan Africa (see figure I.2).

11. The major reason for the stagnation in mortality improvements in the least developed countries has been the human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS) epidemic. Twenty-six of the 48 least developed countries are countries highly affected by HIV/AIDS. The HIV/AIDS epidemic has furthermore held back improvements for the region of sub-Saharan Africa as a whole, because 35 of the region's countries are among the 45 countries most affected by the HIV/AIDS epidemic worldwide³.

12. To gain further insight into the influence of the HIV/AIDS epidemic on mortality in these heavily affected countries, it is useful to compare the expectation of life projected by the United Nations in the presence, and assuming the absence of the epidemic. The difference in life expectancy estimates for 1995-2000 with and without HIV/AIDS mortality is on the order of 18 to 33 years in the 4 most affected countries of sub-Saharan Africa, namely, in Botswana, South Africa, Swaziland and Zimbabwe. For the 35 affected countries in sub-Saharan Africa as a whole, the difference is estimated at 6.5 years for

1995-2000 and projected to reach 8.9 years in the period 2000-2005 (see United Nations, 2001). In the 9 African countries with an estimated national prevalence of HIV/AIDS of 14, the difference in life expectancy is estimated at over 12 years currently, and to exceed 18 years for the group as a whole for the period 2000-2005.

13. Global fertility trends show noticeable downward change relative to trends that prevailed 50 years ago, and even 20 years ago. The decline in fertility that clearly took hold in less developed countries after 1970 established itself in the least developed countries by the late 1970s, causing a convergent worldwide trend. Today, virtually all more developed countries have fertility that is currently below the replacement level of 2.1 live births per woman. In the period 1995-2000, the less developed countries reached a fertility level on average of 3.1 births per woman, still 50 per cent above replacement. Among them, however, the 48 least developed countries had very high total fertility, at about 5.5 births per woman, whereas the fertility in the other less developed countries had fallen to about 2.8 live births on average. In view of the convergence of the global downward trend in fertility, however, projections anticipate that the entire world population will reach the level of replacement fertility in the next 50 years, by 2045-2050 (see figure I.3).

14. Largely due to the decline in fertility decline but also in smaller part to the extension of life in most parts of the world, and furthermore despite the grave setback to mortality due to the HIV/AIDS epidemic, the global population noticeably engaged in a process of ageing over the last 50 years, and the pace of this ageing is projected to accelerate over the next 50 years.

15. The proportion of children aged less than 15 declined globally from 34 per cent to 30 per cent in the last 50 years, and it is expected to decline by virtually a third, to 21 per cent, by 2045-2050. In parallel, the world proportion of persons 60 years and over increased just 2 per cent, from 8 to 10 per cent, but is projected to more than double in the next 50 years, reaching 21 per cent in 2045-2050. Over 100 years, the relation of young to old in the world population will then have passed from 4:1 to 1:1, thereby profoundly altering the age profile of our societies. In more developed regions, the proportion of persons 60 years and over is expected to be twice that of children less than 15 years, and the median age of the population is projected to exceed 46 years.

16. These shifts are likely to be experienced gradually over a period when policies will be designed and implemented to address them. At their

Figure I.3

term, however, they imply such radical alterations of social structures worldwide that policies would best be put in place in anticipation of the multiple results of such changes: at the least, it is likely that no society will be able to afford to delay appropriate responses to the ageing of their populations.

NOTES

¹ The peak period of world growth was 1965-1970, when it exceeded 2 per annum, but it remained persistently high, at about 1.7 per cent from the mid-1970s to the late 1980s. As world population growth is the difference between global mortality and global fertility and mortality was declining faster than fertility, children were surviving in larger numbers to adulthood, along with increased survival of all their elders. In the last decade, the fertility decline fully engaged in the least developed countries, and world growth resumed its decline, falling to an estimated 1.4 per cent in the last five years of the millennium.

² World Health Organization, *World Health Statistics Annuals* (1996), pp. B4-14; Becker and Bloom (eds.), *World Development*, Special Issue: *The Demographic Crisis in the Former Soviet Union*, vol. 26, No. 11 (1998).

³ For detailed information on the HIV/AIDS epidemic, the reader is referred to the most recent report published by the Joint United Programme on HIV/AIDS (UNAIDS) (see UNAIDS/WHO, 2000). At the end of 2000, an estimated 36 million persons were living with HIV or AIDS, and over 25 million of them were in sub-Saharan Africa, where the regional average adult (15-49 years) prevalence rate is the highest in the world, at 8.8, and four times the next highest prevalence rate, 2.3, currently found in the Caribbean.