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WORLD DEMOGRAPHIC TRENDS
(E/CN.9/2011/6)

Report of the Secretary-General

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Mr. Chairman, distinguished Delegates, ladies and gentlemen,

I have the honour to introduce the report entitled “World demographic trends” (E/CN.9/2011/6), which takes a long view to illustrate the sensitivity of future population trends to small changes in fertility. By considering the long-term consequences of current conditions, challenges are revealed and policy imperatives are identified.

Population dynamics are in constant change: Families are formed, children are born, people die, people move from a village to a city or from one country to another. As a consequence, populations increase or decrease in size, become younger or older, change their composition. Those ongoing changes and their reflection in population aggregates are not only significant when they occur. Women giving birth today were born 15 to 49 years ago; in low mortality countries, the bulk of health services are consumed by people born decades ago. For those reasons, we need to consider past trends and extrapolate into the future. The scenarios presented in the report on World Demographic Trends represent different types of extrapolations meant to illustrate how decisions made today can have a major and long-lasting impact in the future.

Today, the world population is still 6.9 billion but will soon cross the 7 billion mark. Since 1950, when the world population stood at 2.5 billion, 4.4 billion people have been added to the world’s population. This unprecedented growth came about despite significant reductions in fertility.

Between 1950 and today, fertility dropped from almost 5 children per woman to 2.5 children per woman. Fertility declined more markedly among the group of developing countries which, in this case, exclude the least developed countries. Developing countries, which comprise the majority of the world's population, achieved an impressive reduction of fertility: from 6 to 2.5 children per woman. In contrast, the least developed countries saw their fertility drop very slowly, to just 4.4 children today. Consequently, the difference in fertility levels between the least developed countries and the other developing countries increased.

One of the driving forces of fertility decline was the reduction of mortality. Between 1950 and 2010, the world experienced a momentous increase in life expectancy, from just 47 years in 1950 to 68 years in 2010. Thus, the world average today is comparable with the level of mortality that developed countries had in the early 1950s. The least developed countries are lagging behind in their effort to reduce mortality. Nevertheless, as a group, their life expectancy rose from 36 years in 1950 to 56 years in 2010. Life expectancy also rose in developed countries, although it started at a high of 66 years in 1950. By 2010, it stood at 77 years. As a result of these changes, the gap between developed and developing countries narrowed, but that between the least developed countries and the other developing countries widened, partly because of the disproportionate impact of the HIV/AIDS pandemic on the least developed countries.

Mr. Chairman,

One of the objectives of the Programme of Action of the International Conference on Population and Development is the stabilization of world population, a stabilization that would contribute to attain sustainable development and maintain economic growth. What are the prospects for achieving a stable, that means, unchanging population? The report of the Secretary-General examines a number of scenarios of future population dynamics to illustrate the options.

First, the report asks: what would happen over the long run if today's levels of fertility and mortality remained unchanged at the country level? Such a scenario produces a world population of 3.5 trillion people in 2300, a figure too large to plot in a graph showing the results of other scenarios and so utterly impossible that it indicates that current levels of fertility and mortality are not sustainable. Looking at the results with more detail, we find that the high fertility of countries in Africa, when maintained over nearly 300 years, leads to a 2300 population of 3.1 trillion for that continent alone. Therefore, it is the major cause of the staggering population numbers at the world level. In contrast, under constant fertility and mortality, Europe's population would shrink from 733 million inhabitants today to just 100 million in 2300.

The report then asks what would happen if all countries instantly attained replacement level fertility, that is, the fertility required to ensure that every woman is eventually replaced by a daughter, which is usually close to 2.1 children per woman when mortality is low. In that scenario, the fertility of developed countries increases from the low current levels by about half a child and the fertility of the least developed countries drops from the current 4.4 children per woman to about 2.2 children per woman. Fertility in the rest of the developing countries declines by just 0.4 children per woman. The somewhat surprising result of this instant-replacement scenario produces a world population that continues to grow until 2300. There are two reasons for this outcome: Populations that have had high fertility continue to grow because of population momentum even after their fertility reaches replacement level. Population momentum arises because the population has too many people of reproductive age. It takes about two generations after replacement level is attained for momentum to cease. The second reason that population growth continues in the instant-replacement scenario is that mortality is assumed to decline continuously, leading to more survivors over time.

According to the instant-replacement scenario, the world population increases from about 7 billion today to about 9 billion in 2050, attains 10 billion around the end of this century and continues rising to reach 11.5 billion in 2300. By 2300, the instant-replacement scenario produces a doubling of the populations of Africa and Oceania; the population of

Northern America increases by 90 per cent; those of Asia and Latin America and the Caribbean increase by 60 per cent, and the population of Europe increases by a third.

Mr. Chairman,

The report then presents a range of plausible future trends by considering three scenarios named low, medium and high.

The medium scenario is built on the assumption that all countries will experience a sustained period of below-replacement fertility, an assumption based on the recent experience of developed countries. After that period, fertility returns to replacement level. In this scenario, world population increases at an ever-slowing pace until 2070, when it reaches 9.4 billion. At that point, because the fertility of every country is projected to remain below replacement level for a century, the medium scenario produces a declining world population that reaches a temporary minimum at 7.9 billion in 2195. The eventual return of fertility to replacement level in all countries stops the decline and leads to a slowly increasing population that reaches 8.3 billion in 2300.

The high and low scenarios reveal the sensitivity of long-range projections to small variations in fertility. With a fertility that stays just a quarter of a child above the fertility of the medium scenario over most of the projection period (2050-2300), the high scenario produces an ever-increasing population that reaches nearly 30 billion in 2300. Its counterpart, the low scenario, has fertility that remains a quarter of a child below the fertility of the medium scenario from 2050 to 2300. This scenario produces a world population that reaches a maximum at 8 billion in 2040 and then declines steadily to 1.6 billion in 2300.

The two scenarios indicate that even relatively small deviations from replacement-level fertility maintained over the long run can lead to dramatic changes in the size of the world population. The high scenario, in particular, suggests that even in countries where fertility has already declined markedly from 1950 levels but is still above replacement

level, additional reductions are necessary to avoid large population increases over the long run. The population of India, for instance, reaches 2.3 billion in 2100 in the high scenario, a population 0.9 billion higher than that projected by the medium scenario (1.4 billion). By 2300, the difference between the two is even higher (3.1 billion), with the high scenario producing a total population for India alone of 4.4 billion.

Mr. Chairman,

As Niels Bohr remarked: “Prediction is very difficult, especially about the future.” Acknowledging the impossibility of predicting the future, the report of the Secretary General on World Demographic Trends uses a variety of scenarios to illustrate the implications of future variations in fertility. Together, the scenarios reveal that current levels of fertility and mortality in countries with above replacement fertility are not sustainable. Fertility levels have to be brought down at least to replacement level to avoid an explosion of the world population. Even the attainment and maintenance of replacement-level fertility by all countries would result in a slowly growing population over the long run because of the projected sustained increase in longevity. To avoid sustained growth, fertility would have to drop below replacement level for long periods in every country, as it does in the medium scenario.

Thank you Mr. Chairman.