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## A “Snapshot” of Populations in Asia

Asia-Pacific Population & Policy summarizes research on population and reproductive health for policymakers and others concerned with the Asia-Pacific region.

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Over the past 50 years, there has been a fundamental shift in population dynamics in Asia. Fueled by economic growth and the diffusion of new ideas and health and family planning technologies, both mortality and fertility have declined in every country of the region. This demographic transition, in turn, has provided favorable conditions for accelerated social and economic development.

The demographic transition has been more rapid and more dramatic in Asia than in any other part of the world. Between 1950 and 2000, life expectancy in East Asia rose from 43 to 72 years, and fertility dropped from more than five to less than two children per woman. The countries of Southeast and South and Central Asia have begun the transition to low mortality and fertility, but most are not as far advanced. Yet even in the less developed countries of the region, death and birth rates have fallen, and population growth rates and structures are changing.

This issue of *Asia-Pacific Population & Policy* provides a quick snapshot of population dynamics in Asia as a whole and in Asia's three subregions—East, Southeast, and South and Central Asia. It is based on *The Future of Population in Asia*, a special East-West Center publication (2002) supported by the Bill and Melinda Gates Foundation.

The discussion uses statistics published by the United Nations Department of Economic and Social Affairs in *World Population Prospects: The 2000 Revision* (2001). The United Na-

tions (2002) has recently indicated that the next round of world population projections may be revised somewhat downward, but this is still a matter of some debate.

### LIFE EXPECTANCY, FERTILITY, AND POPULATION GROWTH

In Asia, as elsewhere in the world, economic development, social modernization, and access to new technology caused a drop in death rates well before they had an effect on birth rates. Mortality fell especially rapidly in the decade after World War II when new medical and public-health technology—such as vaccinations and pesticides—were imported into Asia from Europe and North America.

During the second half of the 20<sup>th</sup> century, life expectancy in Asia as a whole increased by more than 20 years (Table 1). In East Asia, Japan now has the highest life expectancy in the world, at 81 years, and Hong Kong, Macao, and Singapore are not far behind (United Nations 2001). At the other extreme, life expectancies are particularly low (in the 50s) in Laos, Cambodia, Myanmar, and Nepal. Afghanistan, at 43 years, has one of the lowest life expectancies in the world. Life expectancy is 71 in China and 64 in India, the largest two countries in the region.

Economic development and access to new technologies have led to at least some level of fertility decline in every Asian country. The rate of decline has

Table 1 Population trends in Asia and in Asia's three subregions and two largest countries: 1950–2050

| Region, subregion, or country and year | Population (1,000s) | Percent of Asia's population (world) | Total fertility rate (TFR) <sup>a</sup> | Life expectancy at birth <sup>a</sup> | Percent age 0–14 | Percent age 65+ | Dependency ratio |
|--|---------------------|--------------------------------------|---|---------------------------------------|------------------|-----------------|------------------|
| <b>Asia</b>                            |                     |                                      |   |                                       |                  |                 |                  |
| 1950                                   | 1,348,923           | 54                                   | 5.89                                    | 41.3                                  | 36               | 4               | 0.68             |
| 1975                                   | 2,297,685           | 57                                   | 4.18                                    | 44.8                                  | 40               | 4               | 0.78             |
| 2000                                   | 3,484,065           | 58                                   | 2.49                                    | 67.7                                  | 30               | 6               | 0.56             |
| 2025                                   | 4,472,895           | 56                                   | 2.11                                    | 73.8                                  | 22               | 10              | 0.48             |
| 2050                                   | 5,004,281           | 54                                   | 2.05                                    | 76.9                                  | 19               | 17              | 0.57             |
| <b>East Asia</b>                       |                     |                                      |   |                                       |                  |                 |                  |
| 1950                                   | 672,483             | 50                                   | 5.71                                    | 42.9                                  | 34               | 4               | 0.63             |
| 1975                                   | 1,096,726           | 48                                   | 3.13                                    | 46.7                                  | 38               | 5               | 0.74             |
| 2000                                   | 1,481,075           | 43                                   | 1.76                                    | 72.3                                  | 24               | 8               | 0.46             |
| 2025                                   | 1,685,206           | 38                                   | 1.89                                    | 77.3                                  | 18               | 14              | 0.48             |
| 2050                                   | 1,665,197           | 33                                   | 1.9                                     | 79.7                                  | 16               | 24              | 0.66             |
| <b>Southeast Asia</b>                  |                     |                                      |   |                                       |                  |                 |                  |
| 1950                                   | 178,073             | 13                                   | 6.03                                    | 40.5                                  | 39               | 4               | 0.74             |
| 1975                                   | 321,268             | 14                                   | 4.81                                    | 43.6                                  | 42               | 4               | 0.84             |
| 2000                                   | 522,121             | 15                                   | 2.52                                    | 67.0                                  | 32               | 5               | 0.59             |
| 2025                                   | 692,228             | 15                                   | 2.09                                    | 74.0                                  | 23               | 8               | 0.47             |
| 2050                                   | 800,302             | 16                                   | 2.08                                    | 77.3                                  | 20               | 16              | 0.56             |
| <b>South and Central Asia</b>          |                     |                                      |   |                                       |                  |                 |                  |
| 1950                                   | 498,367             | 37                                   | 6.08                                    | 39.3                                  | 39               | 4               | 0.73             |
| 1975                                   | 879,691             | 38                                   | 5.24                                    | 42.8                                  | 41               | 4               | 0.80             |
| 2000                                   | 1,480,868           | 43                                   | 3.25                                    | 63.3                                  | 35               | 5               | 0.66             |
| 2025                                   | 2,095,462           | 47                                   | 2.24                                    | 70.9                                  | 26               | 7               | 0.49             |
| 2050                                   | 2,538,781           | 51                                   | 2.12                                    | 74.9                                  | 21               | 13              | 0.51             |
| <b>China</b>                           |                     |                                      |   |                                       |                  |                 |                  |
| 1950                                   | 554,760             | 41                                   | 6.22                                    | 40.8                                  | 34               | 4               | 0.61             |
| 1975                                   | 927,808             | 40                                   | 3.32                                    | 65.3                                  | 39               | 4               | 0.78             |
| 2000                                   | 1,275,133           | 37                                   | 1.80                                    | 71.2                                  | 25               | 7               | 0.46             |
| 2025                                   | 1,470,787           | 33                                   | 1.90                                    | 76.3                                  | 18               | 13              | 0.46             |
| 2050                                   | 1,462,058           | 29.2                                 | 1.90                                    | 79.0                                  | 16               | 23              | 0.64             |
| <b>India</b>                           |                     |                                      |   |                                       |                  |                 |                  |
| 1950                                   | 357,561             | 27                                   | 5.97                                    | 38.7                                  | 39               | 3               | 0.73             |
| 1975                                   | 620,701             | 27                                   | 4.83                                    | 52.9                                  | 40               | 4               | 0.77             |
| 2000                                   | 1,008,937           | 29                                   | 2.97                                    | 64.2                                  | 33               | 5               | 0.62             |
| 2025                                   | 1,351,801           | 30                                   | 2.10                                    | 71.6                                  | 23               | 8               | 0.46             |
| 2050                                   | 1,572,055           | 31                                   | 2.10                                    | 75.4                                  | 20               | 15              | 0.53             |

Source: United Nations (2001); 1998 revision for TFR and life expectancy in 1950 and 1975.

Note: Countries included in the totals for East Asia are China, Hong Kong, Macao, Japan, Mongolia, and North and South Korea. Countries included for Southeast Asia are Brunei Darussalam, Cambodia, East Timor, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam. Countries included for South and Central Asia are Afghanistan, Bangladesh, Bhutan, India, Iran, Kazakhstan, Kyrgyzstan, Maldives, Nepal, Pakistan, Sri Lanka, Tajikistan, Turkmenistan, and Uzbekistan.

<sup>a</sup>Refers to 1950–54, 1975–79, 2000–04, 2025–29, and 2045–49.

varied widely, however, so that fertility levels in Asia today are extremely diverse—ranging from a low of 1.3 children per woman in Japan to a high of 6.8 in Afghanistan.

Fertility is at replacement level (usually defined as 2.1 children per woman) or lower in all the countries of East Asia except Mongolia. In Southeast Asia, fertility ranges from 1.5 children per woman in Singapore to 4.8 in Laos (Lao People's Democratic Republic) and Cambodia. In South and Central Asia, fertility ranges from 2.0 children per woman in Kazakhstan to 6.8 in Afghanistan. In Asia's largest countries, fertility averages 1.8 children per woman in China and 3.0 in India.

Sharp reductions in mortality combined with later and slower reductions in fertility have resulted in high rates of transitional population growth. Between 1950 and 2000, Asia's population grew by 258 percent—from 1.3 to 3.5 billion. Over the 50-year period, the region's share of world population increased from 54 to 58 percent.

According to the United Nations medium-variant projections, life expectancy will rise from 66 to 77 years between 2000 and 2050 and fertility will decline from 2.7 to 2.1 children per woman. This will produce continued population growth, but at a much slower pace. The projected increase is from 3.5 to 5.0 billion, or 44 percent.

Population will grow somewhat more slowly in Asia than in the rest of the world. As a result, Asia's share of world population is projected to drop back down to 54 percent.

South and Central Asia will contribute 70 percent of Asia's population growth between 2000 and 2050, and Southeast Asia will contribute 18 percent. East Asia will contribute 12 percent, but most of this contribution will be from China.

Six countries are projected to contribute 81 percent of Asia's population

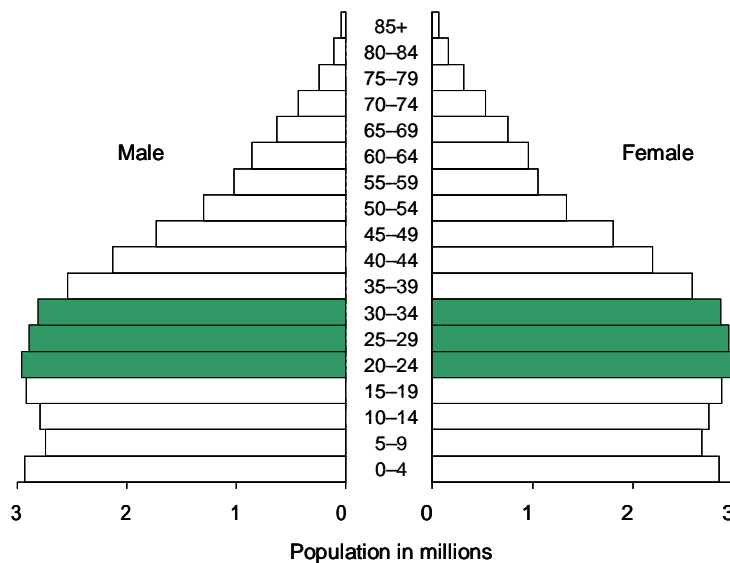


Figure 1 Age and sex structure of Thailand's population in 2000 showing a temporary "population bulge" of young adults at the prime reproductive ages of 20–34

Source: East-West Center (2002).

growth from 2000 to 2050. These are India, Pakistan, China, Bangladesh, Indonesia, and the Philippines. Two countries and two territories in East Asia—Japan, South Korea, Hong Kong, and Macao—will experience population decline.

## POPULATION AGE STRUCTURE

Apart from influencing population growth, falling death and birth rates can distort population age structure. Four aspects of age structure have important policy implications.

**Population momentum.** When fertility declines from high to low levels, a population is characterized—about 15 to 20 years later—by an unusually large proportion of men and women in their reproductive years. The age structure of Thailand's population in 2000 illustrates this pattern (Figure 1). A large proportion of reproductive-age adults leads to large numbers of births, even when fertility rates are low. At the same time, the elderly population is still small because of high mortality in the past, and this tends to reduce the annual number of deaths.

These temporary imbalances in age structure lead to continuing population growth, even after fertility has fallen to low levels, a phenomenon called "population momentum." Thus, although most countries in Asia are projected to reach replacement-level fertility over the next 20 years, their populations will continue to grow substantially for several decades.

Every country in Asia has recently experienced population momentum, is experiencing it now, or is projected to experience it in the next 20 to 30 years. Japan, for example, reached replacement-level fertility in 1957, and today Japan has one of the lowest fertility rates in the world. Yet the Japanese government projects that their population will continue to grow until 2006. During the 50 years from 1957 to 2006, the population of Japan will have grown by one-third.

For Asia as a whole, the United Nations projects that fertility will fall to replacement level by 2025 and will change little between 2025 and 2050. Yet Asia's population is projected to grow between 2025 and 2050 from 4.5 to 5.0 billion. As of 2050, populations will still be growing in every country

of Asia except China, Japan, South Korea, Singapore, and Sri Lanka.

**The "youth bulge."** Apart from prolonged population growth, the large proportion of young people in Asian populations has sparked other concerns. Between 1960 and 2000, the number of adolescents and young adults (age 15–24) doubled or more than doubled in every Asian country except China, Japan, North Korea, and Kazakhstan. The rapid growth of youth populations has created pressure to expand education, health, and employment programs aimed at this age group.

Government policymakers and others are also concerned because adolescents and young adults are particularly prone to various types of risk behavior. Youth surveys and other measures indicate rising levels of smoking, drinking, drug use, and unprotected sex.

Evidence of high-risk sexual behavior is especially worrying given the rising prevalence of HIV/AIDS and other sexually transmitted infections (STIs) in some Asian countries. Without good prevention programs for youth, changing population dynamics may well contribute to an expanded HIV epidemic.

**Dependency ratios.** A third important aspect of Asia's population age structure concerns shifts in the balance between working people and the children and elderly whom they support. Populations can usefully be divided into three age groups—young dependents at ages 0–14 years, the working-age population at ages 15–64, and elderly dependents at ages 65 and above. As mortality and fertility decline, the proportions in these three age groups change.

In Asia as a whole, the proportion of young dependents is projected to drop sharply, from 30 to 19 percent between 2000 and 2050, while the proportion of elderly dependents is projected to rise from 6 to 17 percent (Table



1). Among Asia's three subregions, East Asia has and will continue to have the lowest proportion of young dependents and the highest proportion of elderly.

The ratio of dependents (both young and old) in a population to those of working age is called the "dependency ratio." It is an approximation of the average number of dependents that each person of working age must support.

In 2025, there will be slightly more than two people of working age in Asia for every dependent in the population. In 2050 there will be fewer than two people of working age for every dependent. These changes reflect a decline in the proportion of children followed by a rise in the proportion of elderly.

The temporary dip in overall dependency that typically occurs during the early phase of a fertility transition has been referred to as a "demographic bonus." During this period, money that would otherwise be spent supporting dependents can be saved and invested, providing an impetus to economic development. In addition, women with fewer children can play a more active role in the economy. The boost to development is not automatic, however, because there is no guarantee that governments, institutions, or individuals will use their resources wisely.

Most countries in East Asia have already experienced the bulk of their demographic bonus. Over the next 50 years, demographic conditions in much of Southeast and South and Central Asia will be particularly favorable for economic growth. To take full advantage of this opportunity, countries will need to implement appropriate social and economic policies such as strengthening and rationalizing their banking systems and reducing the gender gap in education to assure women's full participation in economic development.

**Population aging.** In the longer term, Asia's fertility transition will result not

only in fewer children, but also in fewer working-age adults compared with the elderly who were born when fertility was high. All across the region, the number of people age 65 and above is expected to grow substantially over the next 50 years. For Asia as a whole, the population in this age group will increase by 314 percent—from 207 million in 2000 to 857 million in 2050. The process is most advanced in East Asia where the proportion of elderly is expected to rise from 8 percent in 2000 to 24 percent in 2050.

By 2050, the largest five-year age group in Japan will be 75–79 years old. This has many important implications for policy, but at least Japan will probably have the financial resources necessary to support its elderly population. In other Asian countries, population aging will come at a much earlier stage of economic development.

Many Asian countries do not yet have the necessary institutions and financial systems in place to provide for a large dependent elderly population. They will need efficient and well-managed pension and health-care programs, capital markets, and accounting and regulatory systems.

Today, the region is at a critical juncture. Countries such as Indonesia, Thailand, and China will need to establish or extend programs for the elderly very quickly, and they will need to think very carefully about how these programs should be structured and managed.

## POLICY IMPLICATIONS

How quickly will all of Asia's countries reach, and possibly drop below, replacement-level fertility? The answer has important implications for the ultimate size of the region's population.

For Asia as a whole, the United Nations high and low projections for 2050—which assume slower or faster

fertility declines—differ by 1.8 billion people. Because Asia is already densely populated, even the low projection, if realized, will place strains on infrastructure, natural resources, and the environment.

In many Asian countries today, women still have more children than they want. Policymakers in these countries and international donors alike need "a second wind" to continue providing consistent, long-term support for family planning programs. In addition, reproductive-health and risk-reduction programs need to reach out more vigorously to young people.

Asian governments also need appropriate policies to take full advantage of the temporary bulge in their working-age populations. Governments must provide gainful employment to a growing work force, encourage saving and investment, and support women's efforts to expand their economic role. And finally, Asian governments need to look ahead to the needs of their growing elderly populations and move quickly to put the necessary pension schemes, health-care programs, and other institutional and financial arrangements in place.

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