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The Demography of East and Southeast Asia from the 1950s to the 2000s A Summary of Changes and a Statistical Assessment

Following on from sub-Saharan Africa (Tabutin and Schoumaker, 2004), the Arab World and the Middle East (Tabutin and Schoumaker, 2005), Latin America and the Caribbean (Guzman et al., 2006) and South Asia (Véron, 2008), this latest chronicle is devoted to the demography of the world's most populated region, that of East and Southeast Asia. With an estimated 2.1 billion inhabitants in 2007, representing a third of the world population (6.6 billion in that same year), for just 16 of the 227 nations recognized by the United Nations, the weight of this region is considerable. These countries include a giant – China – whose 1.3 billion inhabitants alone account for half of the region's population and one-fifth of the world total. Knowledge of the demographic trends in East and Southeast Asia is therefore key to understanding those of the planet as a whole. The population of this region is also fascinating in other respects. For example, it is the part of the globe where some of the most rapid demographic transitions have been observed, in terms of both fertility and mortality decline. In some countries, fertility has fallen even lower than the levels reached in many western countries, thanks to remarkably vigorous family planning programmes. Their success has been such that some governments are now implementing original and culturally specific measures to reverse the downward trend. Last, the region includes countries whose economic development relies on their capacity to attract foreign workers, and others which depend on massive labour emigration.

The purpose of this chronicle is two-fold: to present trends from 1950 up to the present day and to examine the current demographic characteristics of the populations of East and Southeast Asia and of the countries making up

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Map. Geographical location of the 16 countries of the region and the two sub-regions



the region. The indicators used in this chronicle are presented in 15 Appendix Tables corresponding to the various topics covered in the text. This article also aims to provide a general overview of the changes under way and to review our knowledge of the region as illustrated by the experience of different countries that are representative of a particular trend or, on the contrary, follow an exceptional pattern. The information is often summarized in the form of small tables and graphs specific to selected countries or comparing the region as a whole (or, more often, its two sub-regions) with other regions of the developing world.

After a summary of the social and economic situation in the region compared with the rest of the world, an outline of information systems and a brief history of the East and Southeast Asian populations over the last two thousand years, the following themes will be explored: population growth since 1950; the patterns of demographic transition; nuptiality (age at marriage, celibacy, polygamy and union dissolution); fertility levels and trends and government measures to control fertility; reproductive behaviour and other proximate determinants of fertility (contraception and abortion especially); overall mortality and maternal mortality; child mortality and health from age 0 to 5 (antenatal care and conditions of childbirth, vaccination, malnutrition); age structure; urbanization; international migration and lastly, gender inequalities in access to education.

Our approach is essentially descriptive and involves an analysis of levels and trends in all countries, and of inequalities (in education and living environment) in selected countries for which the data are available and which illustrate the broad range of situations observed in the region. In certain cases we will study the relation between the demographic indices of the countries and their indicators of social, economic, human and health development, which are grouped by country in Appendix Tables A.14 and A.15. Readers interested in more analytical or detailed analyses of one or other of the themes or countries covered are invited to consult the extensive list of references appended to this article.

Wherever possible, we have used the indicators produced by the various health and fertility surveys conducted in these countries over the last two or three decades, along with data from more specialized country-specific surveys. Published demographic research specific to individual East and Southeast Asian countries, or studies with a more regional focus were also used when they shed original light on the question in hand. As for the previous chronicles on other major world regions, our preferred data sources are the databases of the various international agencies, the United Nations in particular (Population Division, UNDP, WHO, UNESCO, etc.), but also the World Bank for the economic and social indicators needed to track changes since 1950 and to provide comparable or specific indicators. It was on the basis of these sources that the contours of the region examined in this chronicle were defined. They are presented on the map hereabove. This map shows the geographical location of the sixteen countries and their grouping into East Asia (five countries: China,⁽¹⁾

(1) Note that Hong Kong and Macau, reverted to China in 1997 and 1999, respectively, now have the status of special autonomous regions and will be treated as part of the People's Republic of China, and not as autonomous national entities. The island of Taiwan (or Republic of China) is not officially recognized as an independent state by the United Nations and is not included in the demographic database published by the United Nations Population Division on which many of the analyses presented in this article are based. Taiwan is nonetheless covered in an appendix.

North Korea,⁽²⁾ South Korea, Japan and Mongolia) and Southeast Asia (eleven countries: Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar (former Burma), Philippines, Singapore, Thailand, Timor-Leste and Vietnam), which corresponds to the United Nations classification. The grouping together of these two regions and their separation from the rest of Asia (South and West Asia) is justified by their relative homogeneity, not only in demographic and geographical terms, but also with regard to their history and culture (with the decisive influence of Chinese Buddhism at certain periods).

I. The region and its place in the world: the general context in 2005

In general terms, the region comprising the sixteen East and Southeast Asian countries is currently experiencing slow demographic growth, at a rate considerably below that of the other major regions of the developing world. Furthermore, female fertility is now very low, at below replacement level. In 2005 it stood at 1.9 children per woman compared with a mean of 3.2 in the rest of Asia, 2.5 in Latin America, 3.1 in North Africa and 5.5 in sub-Saharan Africa. From a demographic viewpoint, this geographical entity of East and Southeast Asia is therefore markedly different from other regions of the developing world.

In 2005, the region numbered 2.08 billion inhabitants, representing more than half (53%) of the population of the entire Asian continent, 40% of the population of the developing countries, and one-third (32%) of the world population. Note, however, that China, with nearly two-thirds (63%) of the region's population, constitutes by itself the essential reason for this considerable demographic weight, and dominates regional trends. Apart from China, still the world's most populated country, ahead of India, the region includes two of the world's other nine most populous countries: Indonesia (4th in the world) and Japan (10th in the world), with respectively 226 and 128 million inhabitants. The region also includes some of the least populous countries, notably the sultanate of Brunei Darussalam (370,000 inhabitants), Timor-Leste (just over 1 million) and Mongolia (2.6 million), and so represents a wide demographic spectrum.

The sixteen countries making up the region are at very different stages in their demographic transition. At one extreme is Japan, which completed this process several decades ago and is currently the country in the world where population ageing is most advanced. At the other extreme are countries such as Cambodia or Laos, with 3.6 children per woman on average and life expectancy

(2) For simplicity, we use the term China for the People's Republic of China (excepting specific cases), North Korea for the Democratic People's Republic of Korea, South Korea for the Republic of Korea, Laos for the Lao People's Democratic Republic and Mongolia for the Mongolian People's Republic (up to 1992).

at birth of around 60 years (i.e. 22 years less than Japan), and which are only just in the first stages of their transition. Very different political, economic and social situations therefore exist within the region, as well as a wide diversity of demographic regimes.

Taken as a whole, the region is relatively well placed in economic terms. According to UNDP, the East Asia and Pacific region, which covers more or less the same region as “East and Southeast Asia” as defined by the United Nations,⁽³⁾ has a gross national income (GNI) per capita of intermediate level, comparable to that of North Africa and the Middle East (Arab countries), but twice as high as that of South Asia and three times higher than that of sub-Saharan Africa (Table 1). It is nonetheless well below the GNI per capita recorded for Latin America and far behind that of the OECD countries (which include Japan and South Korea, the two richest countries in the region). Note that the exclusion by UNDP of both the richest (Japan, South Korea) and the poorest (Myanmar, Laos, Cambodia, Mongolia) countries from its definition of the region, biases the inter-regional comparison somewhat. Moreover, this regional level of comparison conceals considerable inequalities. For example, the GNI per capita (in terms of purchasing power parity) is ten to fifteen times higher in Japan and Singapore (at just under USD 30,000 per head) than it is in Laos, Myanmar, Cambodia, Mongolia or Vietnam. China, Thailand, the Philippines and Indonesia are in intermediate positions with a GNI per capita between USD 3,600 and just over USD 8,000 (Appendix Table A.14).

Finally in terms of human development, the East Asia and Pacific region as defined by UNDP is the most advanced in the developing world after Latin America and the Caribbean. With a Human Development Index (HDI)⁽⁴⁾ of 0.760 in 2004, it performs considerably better than Africa (0.472) and South Asia (0.599), but remains well below the OECD countries (0.923) (Table 1). Once again, a wide heterogeneity is observed between countries in the region. In terms of world rankings, three of the countries of the region – Japan, Singapore and South Korea⁽⁵⁾ – are highly placed, occupying respectively 7th, 25th and 26th places out of 177, with HDI scores near the maximum (0.949, 0.916 and 0.912 respectively), while Brunei Darussalam and Malaysia, which also have high HDI scores (of 0.8 or above), hold the 34th and 61st places in the world rankings. The other countries of the region are all, without exception, classified as countries with medium HDI scores (between 0.5 and 0.799), while

(3) In the East Asia and Pacific region, UNDP includes 10 countries of which 8 (Cambodia, China, Indonesia, Malaysia, Mongolia, Philippines, Thailand and Vietnam) belong to East and Southeast Asia as defined by the United Nations, but UNDP excludes Japan, South Korea, North Korea, Mongolia, Laos, Myanmar, Brunei Daroussalam, Singapore and Timor-Leste which form part of East and Southeast Asia according to the United Nations.

(4) A composite index with a value from 0 to 1, defined by UNDP. It takes account of income, education and life expectancy at birth.

(5) As a reminder, these three countries are not included in the UNDP list of East Asian and Pacific countries.

Table 1. Demographic, economic and social characteristics of the regions of the world, circa 2005.

Region	Population (millions)		Total fertility rate 2000-2005 (children per woman)	Life expectancy at birth in 2004 (years)	Annual population growth 1975-2004 (%)	Human development index ^(a) in 2004	GNI per capita (USD PPP) ^(a) in 2004	Adult illiteracy rate in 2004 (%)
	1975	2004						
Sub-Saharan Africa	313	690	5.5	46.1	2.7	0.472	1,946	37
North Africa and Middle East (Arab countries)	145	311	3.7	67.3	2.6	0.680	5,680	30
Latin America and the Caribbean	318	548	2.6	72.2	1.9	0.795	7,964	10
South Asia	839	1,528	3.2	63.7	2.1	0.599	3,072	39
Eastern Asia and Pacific	1,310	1,944	1.9	70.8	1.4	0.760	5,872	9
OECD countries	926	1,165	1.8	77.8	0.8	0.923	27,571	-
World	4,074	6,389	2.7	67.3	1.6	0.741	8,833	-

^(a) See Appendix Table A.14 for the definition of the indicator.

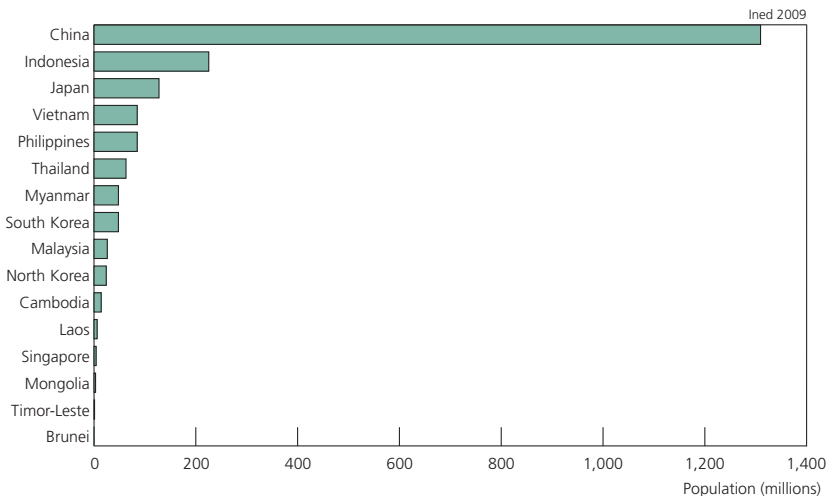
Source: UNDP (2006).

only African countries figure in the category of countries with low HDI scores (below 0.5) (Tabutin and Schoumaker, 2004). Nonetheless, significant disparities exist between countries. For example, while Thailand scores 0.784 on the Human Development Index, the score is as low as 0.553 for Laos and 0.512 for Timor-Leste, just above the level required to move out of the low human development category (Appendix Table A.14). Note that North Korea, one of the world's poorest countries,⁽⁶⁾ is excluded from the UNDP classification because data are not available.

II. Geographical diversity between countries

The sixteen countries which make up East and Southeast Asia have a high degree of diversity in terms of populations, land areas and population densities (Appendix Table A.2). Some countries have very distinctive features: China, with over 1.3 billion inhabitants in 2005 and, to a lesser extent, Indonesia and Japan, with respectively 226 and 128 million, account between them for 80% of the population of the region (Figure 1). The remaining 20% are distributed between much smaller countries but which are equally variable in population size, ranging from a few million (Timor-Leste, Mongolia, Singapore, Laos) or even a few hundred thousand (Brunei Darussalam) to over 80 million inhabitants (Philippines, Vietnam). The presence of three out of the ten most populous

Figure 1. The 16 countries of East and Southeast Asia by population in 2005 (millions of inhabitants)



Source: United Nations (2006a).

(6) "North Korea urgently needs food aid", Food and Agriculture Organization of the United Nations, website <http://www.fao.org/english/newsroom/news/2003/24139-en.html>, consulted 14 January 2007.

countries in the world makes East and Southeast Asia the region with the largest population (2.08 billion or 32% of the world total). It is ahead of Central and South Asia (1.6 billion or 25% of the world total), even though that region also includes three of the ten most populous countries (India, Pakistan and Bangladesh, which had respectively 1.1 billion and 169 and 149 million inhabitants in 2005). And it also largely surpasses the African continent as a whole, with more than twice the total population of Africa (922 million inhabitants in 2005 or 14% of the world total).

The land areas of the countries of the region are extremely diverse, ranging from more than 9.5 million square kilometres for China – the world's fourth largest country in terms of land area, after Russia, Canada and the United States – to a few thousand square kilometres for the sultanate of Brunei Darussalam or Timor-Leste (6,000 and 15,000 sq.km respectively), or just a few hundred square kilometres for the city nation of Singapore. With the exception of China (which accounts for about 60% of the land area of the whole region), Indonesia (1.9 million sq.km or about 12% of the whole), and Mongolia (1.6 million sq.km or about 10%) the majority of countries studied here are of medium size, with areas between 100,000 and 700,000 sq.km.

The density of population at country level is equally heterogeneous, varying in 2005 from more than 6,300 inhabitants per square kilometre in Singapore to only 2 inhabitants per sq.km in Mongolia. Although far below Singapore in this respect, South Korea, Japan, the Philippines and Vietnam are also very densely populated, with between two and four times more inhabitants per square kilometre than the regional average (i.e. between 250 and 500 inhabitants per sq.km against an average of 130 inhabitants per sq.km).

These national figures for population density mask significant disparities in population distribution within countries. The population of China in particular is very unevenly distributed, with more than 90% of its inhabitants concentrated in less than 40% of the territory, to the Southeast of a diagonal line linking the cities of Heihe in the north east and Tengchong in the south-west.⁽⁷⁾ The island of Macau, which was retroceded to China in 1999 and has enjoyed the status of “special administrative region” since then, records the highest population density in the world with 20,346 inhabitants per sq.km. At the other extreme, Inner Mongolia and Tibet have extremely low population densities of 20 and 2 inhabitants per sq.km respectively. With an average of 109 inhabitants per sq.km overall, Indonesia also displays a wide heterogeneity in population settlement. The province of Jakarta, which includes the capital city of the same name, has the highest population density in the country at 12,635 inhabitants per sq.km, while the island of Java, although much less densely populated, also had a high density of close to 1,000 inhabitants per sq.km in 2000 (1,033 in Jawa Barat; 959 in Jawa Tengah). But like China, a

(7) In 1982 the regions to the north-west of this line (57.1% of the total land area) were home to 5.6% of the total population (Blayo, 1997). This distribution has not changed greatly since that time.

number of Indonesian provinces have extremely low densities (just 11 inhabitants per sq.km in Kalimantan Timur and 6 inhabitants per sq.km in Papua).⁽⁸⁾ Japan also displays wide, albeit less extreme, disparities, with population density varying in 2005 from more than 4,600 inhabitants per sq.km in the Tokyo-to (5,751 inhabitants per sq.km) and Osaka-fu (4,655 inhabitants per sq.km) prefectures, to only 72 inhabitants per sq.km in Hokkaido.⁽⁹⁾

Note also that the gross population density, calculated by dividing the total area of the country by the number of inhabitants, does not capture the relationship between agricultural resources and demographic pressure (Mathieu and Tabutin, 1996). A different perspective is obtained by recalculating population densities with reference not to total surface area but to arable land area, for example (see Appendix Table A.2). Without changing radically the classification of countries within the region, this new indicator highlights more clearly the demographic pressure exerted on arable land. The population density expressed as the number of inhabitants per square kilometre of arable land is thus multiplied by 27 for Laos and 18 for Malaysia. By comparison with these two, the other countries of the region fare relatively well despite some high multiplier coefficients: density is multiplied by 5 for the Philippines, by 6 for South Korea, by 7 for China, by 8 for Japan and by 9 for Indonesia.

III. A recent but rapid improvement in information

East and Southeast Asia have a thousand-year-old tradition of collecting demographic information, and the world's earliest censuses were conducted in this region (in China under the Han dynasty, which lasted from 206 BCE to 220 CE). These enumerations were simple and irregular counting operations, based on registers kept by village heads, and were used to estimate the number of taxpayers and of potential military recruits. Counts were based on the number of hearths, as in ancient Europe, or the number of fit men. In addition to women, children and old people, many population categories were therefore excluded, such as slaves, notables and the literate. Consequently, the population figures derived from them were very approximate and these operations have very little in common with current censuses apart from their name. This ancient practice nevertheless reflects a tradition of population monitoring exercised in varying forms and which doubtless facilitated the twentieth-century development of data collection in several countries of the region. Where this tradition was unknown, namely in the greater part of Southeast Asia, the colonial regimes were the first to set up systems for collection and statistical analysis of demographic data.

(8) Statistics Indonesia, website <http://www.bps.go.id/sector/population/table3.shtml>

(9) Japan Statistics Bureau, website http://www.stat.go.jp/English/data/handbook/c02cont.htm#cha2_2

Modern censuses, involving collection of individual data on every member of the population, developed quite recently, towards the middle of the twentieth century if we exclude a few occasional operations such as those carried out by colonial powers (for example the French in Indochina in 1901, the Dutch in Indonesia in 1930, and the British in Malaysia and Singapore in 1871). The practice of regular census-taking based on international standards spread quickly throughout the region after the Second World War, and in some countries, such as Japan and South Korea, their frequency (every five years) was even higher than in the majority of Western countries. With the exception of Cambodia (no census between 1962 and 1998), of Myanmar (where the most recent census was in 1983) and, particularly, of North Korea (which has recorded only one census, that of 1993), all the countries of the region have taken modern censuses at least once every 10 or 12 years since the 1970s or even, in several cases, since the 1960s (Appendix Table A.1).

Systems of civil registration, on the other hand, remain deficient almost everywhere, with significant proportions of births and deaths recorded late or not at all. Situations vary in this respect, however. Registration of demographic events has already reached 100% in several countries (Japan, Singapore, South Korea, North Korea and Brunei Darussalam) and is above 90% – the UN acceptability threshold – in Mongolia and Thailand. The position is rather unclear in China, but what little information is available suggests that the coverage of demographic events currently attains about 75%, for births at least (Attané and Sun, 1998; Zhang and Zao, 2006). The proportion of all births and deaths registered is no lower than 50% in any country, even in those which are weakest in this respect (53% in Timor-Leste, 55% in Indonesia, 59% in Laos), compared with 34% in sub-Saharan Africa and 36% in South Asia (UNICEF 2007). These figures reflect the considerable progress made in East and Southeast Asia.

The number of nationally representative surveys of fertility, the family and child health in the region grew rapidly from the 1980s. But participation in international programmes (World Fertility Survey, Demographic and Health Surveys, Multiple Indicator Cluster Surveys⁽¹⁰⁾) has been limited. Five countries of the 16 which make up East and Southeast Asia took part in the World Fertility Survey (South Korea in 1974, Malaysia in 1974, Thailand in 1975, Indonesia in 1976 and the Philippines in 1978) and/or in the Demography and Health Surveys (Cambodia, Indonesia, Philippines, Thailand and Vietnam) but some of them did so with great assiduity (three surveys in Cambodia, seven in Indonesia, four in the Philippines, four in Vietnam, but only one – dating back to 1987 – in Thailand). Nine countries contributed to the programme of MICS surveys set up by UNICEF to follow the progress of the Millennium Development Goals, and the majority of these took part in at least two of the

(10) These programmes are often denoted by their acronyms: WFS for the World Fertility Survey, DHS for Demographic and Health Surveys, MICS for the Multiple Indicator Cluster Surveys.

three survey waves (MICS1, MICS2, MICS3⁽¹¹⁾). Two of these countries are in East Asia (North Korea and Mongolia, each with two surveys) and the others (Indonesia, Laos, Myanmar, Philippines, Thailand, Timor-Leste and Vietnam) in Southeast Asia.

At the same time, many of the countries with little or no involvement in these survey programmes, and even some which participated actively, have conducted their own national surveys along lines closely resembling these international programmes. Regular surveys of reproductive behaviour have been undertaken, using national-level representative samples, by countries which closely monitor their fertility levels, the most prominent being China and Vietnam (every 4-5 years). Surveys of child health or maternal and infant health are also carried out on an occasional or regular basis, an example being China, where they have taken place every year since 1991.⁽¹²⁾ Several countries have also taken part in the programme of household surveys on health set up by WHO,⁽¹³⁾ notably China, Malaysia, Myanmar, the Philippines, Laos and Vietnam.

Finally, a majority of the countries in the region have conducted surveys to estimate certain economic and social development indicators, which frequently include useful demographic information. This is especially the case for two international programmes designed in one case by the RAND Corporation and financed by USAID, and in the other by the World Bank. The first of these organizations is behind the very comprehensive Family Life Surveys⁽¹⁴⁾ which comprise a whole battery of questions on reproductive and health behaviour, and in which two countries of the region (Malaysia and Indonesia) have been involved. The World Bank, for its part, is the originator of the Living Standard Measurement Studies,⁽¹⁵⁾ carried out in China (in 1995-1997 but only in the provinces of Hebei and Liaoning), in Mongolia (in 1995, 1998, 2001 and 2005), in Timor-Leste (in 2001) and in Vietnam (in 1992-1993, 1997-1998, 2002, 2004 and 2006). Socioeconomic surveys have also been conducted on a representative sample of households, but outside the framework of international programmes, by several other countries of the region. Five surveys of this type have been conducted in Cambodia since 1993, one survey every five years from 1968 and every two years from 1992 in Thailand, and in Indonesia practically every year since the end of the 1970s.

In conclusion, the majority of countries in the region possess extensive sources of information. Counting only the censuses and surveys of the WFS,

(11) See <http://www.childinfo.org/mics.html> for a description of this survey programme.

(12) These are surveys carried out under the *Child and Maternal Surveillance System* (see Appendix Table A.1).

(13) For more information on this *World Health Survey* programme see the dedicated website at <http://www.who.int/healthinfo/survey/en/>

(14) <http://www.rand.org/labor/FLS/>

(15) <http://worldbank.org/LSMS/>

DHS and MICS, there have been nearly 110 data collection exercises since 1970 in the sixteen countries of the region, while in the Arab world for example – another developing region which is relatively well supplied with information – only sixty or so such operations have taken place in twenty countries (Tabutin and Schoumaker, 2005). Almost one third of the countries of East and Southeast Asia are on a par with Europe or North America in terms of demographic information systems (namely Japan, Singapore, South Korea, Malaysia and Brunei Darussalam) and even the least well-endowed country in this respect (North Korea) still has a census and two MICS surveys to draw on, all carried out during the 1990s. Even the least economically developed countries can be considered well equipped by comparison with certain countries in sub Saharan Africa, South Asia or even Latin America or the Caribbean. Timor-Leste, for example, has access to data from five censuses (of which the first four were conducted by Indonesia, of which the country was then a part), one MICS and one DHS survey; Cambodia two censuses and three DHS surveys; and Myanmar two censuses, one DHS and two MICS surveys. Finally, a number of countries in the region have been particularly active in the field of DHS type surveys, namely Indonesia (eight surveys), the Philippines (eleven) and Vietnam (six).

We note finally that while the data from WFS, DHS and MICS surveys are relatively easy for researchers to access in electronic form, this is rarely the case for censuses and other types of survey (demographic or socioeconomic). However, the various specialist branches of international organizations (Population Division of the UN, UNICEF and WHO particularly) do have access to survey data, and publish results, or estimations derived from them, for the main demographic indicators. The present study is based directly or indirectly on these various sources. The reliability of the indicators given here is of course dependent on the quality of the data used, and this varies from one country to another, or even, within a single country, from one survey to another depending on the resources available for data collection, the nature of the information collected and the care taken in recording it. A degree of caution is therefore required in interpreting observed levels and trends, and in comparing indicators between countries.

IV. An increasingly documented demographic history

The population history of the region over the centuries is documented in a growing number of publications. Research into the historical demography of East and Southeast Asia developed rapidly in the 1990s, thanks to advances in demographic techniques for analysis of the individual data sources that can be found in this region. Following on from the more classical and less critical approaches of the 1960s and 1970s, which made use of ancient censuses or enumerations (dating from the beginning of the Common Era in Imperial

China, of which Vietnam was then a part, and from the seventh century in Japan), studies based on more specific data (genealogies in China, Korea or Japan, parish registers in the countries colonized in the past by Catholic Western powers – for example the Philippines – or marriage registers kept by villages, local administrations, or Buddhist temples, as in Indonesia) began to multiply, providing precious information, albeit on a local scale, about the demographic dynamics of past centuries. This rapid growth is continuing, with the re-examination of ancient sources using the most modern techniques of historical demography (event history analysis for example). It is thus now possible to outline the rise of the region's main population centres over time. Table 2 sets out the steps in this evolution, on the basis of the figures provided by J-N. Biraben (2004), who has brought together all known estimates in the literature to date.

Among East Asian countries, China and Japan have been the main focus of analysis. In these two countries, the population appears to have grown in stages since the beginning of the Common Era, with strong fluctuations resulting from economic and political changes (Biraben, 1993; Cartier, 2002). These fluctuations corresponded to transformations in agricultural technology or to innovations in navigation: the beginnings of rice cultivation, the development of irrigation, the invention of monetary currency and the growth of trade during periods of prosperity; and equally, during periods of retrenchment, to natural catastrophes – famines and epidemics – often associated with major political upheaval and the weakening of central authority, and which led to dynastic changes. It is estimated that the Chinese population grew from 60 to 120 million in the course of the ten centuries between 200 and 1200 CE, then to 200 million during the eighteenth century and 400 million by the turn of the twentieth century (Biraben, 2004; Cartier, 2002). In Japan, growth seems to have been relatively rapid between the fourth and the eighteenth centuries CE (from less than 1 million to some 6 million inhabitants), and then slower afterwards. It then underwent a vigorous upswing from the sixteenth to the end of the seventeenth centuries, when the population reached more than 30 million, followed by a renewed period of stagnation in the eighteenth century (with only one million additional inhabitants over almost a century and a half). A new phase of rapid growth then occurred in the course of the nineteenth century, bringing the country's population up to 44 million towards 1900 (Biraben, 1993 and 2004).

In Southeast Asia⁽¹⁶⁾ it is only from the nineteenth century onwards that population trends are known with relative certainty, because of the scarcity of sources from the period preceding the colonization of all countries of the

(16) The figures presented here for Southeast Asia should be considered as approximations since J.N. Biraben, the source for these data, does not make clear in the article cited exactly what definition of the region he is using, so we cannot confirm that it corresponds precisely to the countries which concern us here.

region, except Thailand, by Western powers. Growth appears, however, to have been remarkably slow, considering the wealth of the region’s natural resources. Reid (2001), for example, gives a rate of just 0.2% per year on average up to the end of the eighteenth century. This slow growth corresponds to an irregular pattern of change, with the population attaining a maximum of more than 50 million in the second century BCE only to go into long-term decline and bottom out at 19 million around 1400. It then fluctuated around 30 million over the next three to four centuries. With the economic development of the nineteenth century, supported by colonization, the population increased by a third between 1800 and 1900 and reached nearly 40 million by the latter date (Biraben, 2004). The figures put forward for the period before 1800 are derived from very fragmentary sources, however, and should be treated with caution.

Table 2. Population of China, Japan and the whole of Southeast Asia from 400 BCE to 1950 (millions)

Year	China	Japan	Southeast Asia
400 BCE	19	0.1	42
200 BCE	40	0.2	52
CE	70	0.3	47
200	60	0.5	46
400	25	1.5	45
600	49	4	32
800	56	6	29
1000	56	7	33
1200	124	6	27
1400	70	8	19
1600	110	12	30
1800	330	30	28
1900	415	44	38
1950	558	83	75

Source: Excerpt from Table 67-1, Biraben, 2004.

The information systems established by the colonial powers (rudimentary civil registration and population registers, in addition to household censuses with varying amounts of individual-level data) provide enough material to confirm that the population grew rapidly in the nineteenth century, and continued to do so until the mid-twentieth century. This, at any rate, is the observed trend in certain parts of the Philippines, Indonesia and Malaysia (Xenos, 1996). In these countries, the efforts of the colonial administrations to develop communications, increase food production and introduce the first public health measures (smallpox vaccination and hygiene regulations) from the mid-nineteenth century explain the significant decrease in mortality. In the absence of voluntary birth control, this decline in mortality led to demographic

growth that was exceptionally rapid for developing countries before the Second World War. Annual growth rates reached 2 to 3% from about 1830 in Indonesia, and from the mid-nineteenth century in Malaysia, the Philippines and Singapore, whereas no Western country, nor indeed Japan for that matter, has ever experienced annual growth higher than 1.5% over a long period. These observations have been generalized to the whole of Southeast Asia, somewhat excessively in our view, given that they do not apply, for example, to the former colonies of France (Vietnam, Cambodia, Laos) (Barbieri, 2007). It remains the case, however, that up to the nineteenth century all countries of the region appear to have experienced a demographic dynamism which is typical of pioneering fronts and that they were all characterized by low population densities until 1800 or even 1850 (Xenos, 1996). In the following century, trends became more divergent, with some countries, such as Indonesia, the Philippines, Thailand or Malaysia achieving undeniably rapid population growth while others like Cambodia, Laos or Vietnam continued to experience large fluctuations up to the first decades of the twentieth century. As we shall see later, demographic trends in these countries started converging from the mid-twentieth century, as was also the case in East Asia.

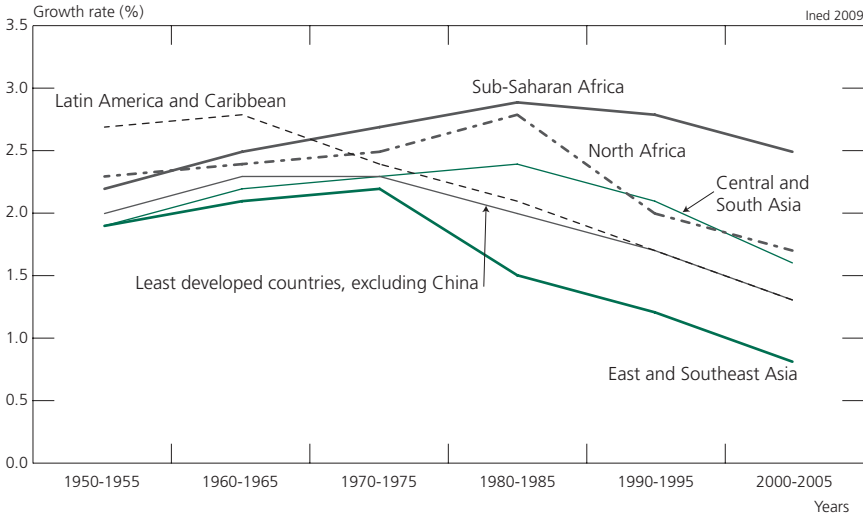
V. Populations and growth from 1950 to 2050

After 1950, the population of the region as a whole increased significantly. Growth rates rose until the mid-1970s, then varied from one country to another as a result of uneven reductions in fertility and mortality. These aspects will be discussed later. First, we will present population growth from 1950 to 2005, followed by the prospects up to 2050.

1. Relatively moderate population growth since 1950

The geopolitical area formed by East and Southeast Asia saw an acceleration in its population growth between the early 1950s and the mid-1970s (about 2% a year on average), owing to decreasing mortality while birth rates remained high. This sustained level of growth nevertheless remained below that observed at the same period in other areas of the developing world. In 1960-1965, for example, while the population of Latin America (including the Caribbean) grew at an average rate of 2.8%, the rate for East and Southeast Asia was lower by 0.7 points – the lowest for all regions of the developing world (Figure 2). This general trend has continued up to the present. In 2000-2005, population growth in East and Southeast Asia was half that of Central and South Asia and North Africa (0.8%, 1.6% and 1.7% per year, respectively), and just one-third that of sub-Saharan Africa, where the population continues to grow at a mean annual rate of 2.5%. Population growth in East Asia is particularly slow, at only 0.6% per year, approaching levels seen in the most developed countries (0.3% in Western Europe and 0.4% in Northern Europe in 2000-2005), and

Figure 2. Trends in population growth rates (in %) in five major regions and in the least developed countries (excluding China), 1950-2005



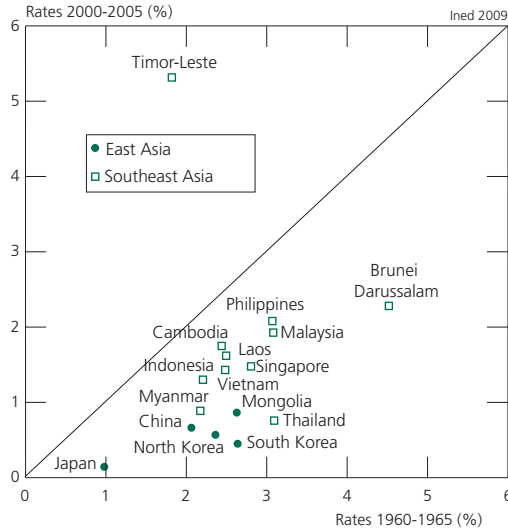
Source: Graph based on United Nations data (2006a).

two to four times slower than in Latin America (1.3%), Central and South Asia (1.6%), and sub-Saharan Africa (2.5%).

This atypical trend owes much to the presence of China, whose demographic weight (63% in 2005) has a huge influence on overall trends in the region and, to a lesser extent, Japan, where the demographic characteristics for the past fifty years match those of Western Europe more closely than they do their Asian neighbours. With a drastic birth control policy in place since the early 1970s, which we will discuss later, China has followed a rather unusual pattern in relation to its level of economic development, characterized by a marked slowdown in its natural growth, which fell from 2.2% per year in 1970-1975 to 1.3% in 1980-1985, while the populations of most other countries in the region continued to grow steadily over the second half of the 1980s: 2.8% per year in Mongolia, 2.4% in the Philippines, 2.6% in Malaysia, 2.2% in Vietnam, and 2.0% in Indonesia and Myanmar.

Over the 1950-2005 period, East and Southeast Asia experienced relatively moderate demographic growth – the lowest in the developing world as a whole, at 1.6% per year on average, compared with 2.6% for sub-Saharan Africa, 2.3% for North Africa, 2.2% for Latin America and the Caribbean, and 2.1% for Central and South Asia. The region thus quickly distanced itself from other developing regions, with significant slowdowns (Figure 2) due to the early, marked decrease in fertility in many countries, particularly Japan – where it fell to below-replacement level as early as the late 1950s – and China. Nonetheless, despite the early decrease in population growth rates in East and Southeast Asia, absolute growth remained considerable. Each year between 1950 and

Figure 3. Trends in population growth rates from 1960-1965 to 2000-2005 in the sixteen countries of the region (%)



Source: Graph based on United Nations data (2006a).

2005, the region's population increased by 22.4 million persons on average (with 13.8 million from China), compared with 20.6 million in Central and South Asia, 12.7 million for the entire African continent, and 7.1 million for Latin America and the Caribbean.

While all countries in the region (excluding Timor-Leste, which saw massive immigration following its annexation by Indonesia in 1975) have displayed a marked slowdown in their population growth over the past decades, the pace of change has varied. Figure 3, based on the latest data from the United Nations (2006a) (Appendix Table A.3), compares pre-transitional growth from 1960-1965 with growth figures in 2000-2005 for each of the sixteen countries. At one end we find the Philippines, which, excepting Brunei Darussalam and Timor-Leste,⁽¹⁷⁾ currently has the fastest population growth in the region (2.1% per year in 2000-2005), along with Malaysia (2.0% annually on average in 2000-2005). Given that these countries already had the highest growth rates in 1960-1965 (above 3.0% per year), the decrease in population growth between 1960-1965 and 2000-2005 was the least marked, with a slowdown of around 35%. A similar trend can be seen in Laos and Cambodia where, despite lower starting points than for Malaysia and the Philippines (2.5% annually in 1960-65), the dip in growth has been relatively slow over the past forty years (-35% and -28% respectively). Hence, in 2000-2005, these four countries still had the region's fastest population growth, with rates

(17) In Brunei Darussalam, where fertility now stands at 2.5 children per woman, rapid population growth is essentially due to high levels of immigration.

ranging from 1.6% to 2.1% per year. Six countries can be found at the other end of the spectrum: China, North Korea, South Korea, Japan, Mongolia and Thailand. While the starting points for these countries were, overall, relatively lower than for the rest of the group, the slowdown has been very pronounced, at more than 65% and even exceeding 80% in Japan and South Korea. Indonesia, Vietnam and Myanmar are found between these two extremes. They had moderate growth rates in 1960-1965 (between 2.2% and 2.5% per year on average) and still remain at relatively low levels compared with other countries in the region, i.e. between 0.9% and 1.5% per year in 2000-2005. A moderate slowdown (between 40% and 60%) in growth has also been observed over the past four decades. Singapore is in a similar situation, although most of its population growth comes from a continuous immigration flow over this period rather than natural growth, as the country now has one of the lowest female fertility rates in the world. There appears to be a fairly clear, albeit atypical, relationship between the pace of slowdown and the starting points observed in 1960-1965, the countries that started out with the lowest growth rates being the ones with the most pronounced decline in their population growth.

The striking decrease in regional population growth as a whole has been accompanied by increasing heterogeneity between countries. Forty years ago, most of them had growth rates ranging from 2.1% to 3.1%, compared with 0.1% to 2.3% today, with standard deviations in 1960-1965 and 2000-2005 of 0.54 and 0.61 respectively. (This excludes Brunei Darussalam and Timor-Leste, where growth is exceptionally high.) All but four of the region's sixteen countries are now growing at a rate below 2%, the exceptions are the Philippines and Malaysia, with marginally higher annual population growth (2.1% and 2.0% respectively), Brunei Darussalam and Timor-Leste. As previously mentioned, Japan is a special case. Its population growth, which already stood below 1% per year on average in 1960-1965, is now close to zero, at +0.1% in 2000-2005.

The absolute population growth in East and Southeast Asia – in other words, the demographic pressure exerted upon the capacity to satisfy basic needs (education, housing, food, employment, etc.) is certainly high, but is lower than in other areas of the developing world. The region's population increased by a factor of 2.5 between 1950 and 2005, compared with 3.2 in Central and South Asia, 3.3 in Latin America and the Caribbean, 3.6 in North Africa and 4.3 in sub-Saharan Africa. It has almost doubled since 1965 (with a multiplier coefficient⁽¹⁸⁾ of 1.8 between 1965 and 2005) (Table 3), but has only increased by 17% since 1990.

These relatively low figures (compared with other regions) are mainly a result of changes in fertility trends over recent decades. As we shall see later, these trends are likely to continue in the decades to come.

(18) Ratio between the 1965 and 2005 populations.

Table 3. Total population growth and population multiplier coefficients in the region's countries, 1965-2005

Sub-region and country	Growth 1965-2005 (%)	Multiplier coefficient 1965-2005
East Asia	74	1.7
China	80	1.8
Japan	29	1.3
Mongolia	136	2.4
North Korea	92	1.9
South Korea	68	1.7
Southeast Asia	120	2.2
Brunei	263	3.6
Cambodia	127	2.3
Indonesia	111	2.1
Laos	152	2.5
Malaysia	170	2.7
Myanmar	104	2.0
Philippines	168	2.7
Singapore	130	2.3
Thailand	95	2.0
Timor-Leste	94	1.9
Vietnam	123	2.2
Whole region	85	1.8
<i>Source:</i> United Nations (2006a).		

2. Prospects for 2050

The population projections issued by the national statistics office of each country are not easily comparable, as they were drawn up at different times and using different methods. We will therefore make use of United Nations projections, which are more homogeneous from a methodological standpoint, although they may disregard certain country-specific aspects. UN projections are revised every two years. The figures from 2006 include the most recent demographic changes, as well as various characteristics that may influence the demographic future of the region's countries (Table 4).

Nonetheless, the 2006 projections should still be taken as one of several possibilities, even if they include the most recent and up-to-date figures. They may still be revised up or down in line with observed demographic trends, especially fertility, and, in some cases, migration. Furthermore, this latest set of projections takes into account the increased number of male births in certain East Asian countries, particularly in China and South Korea. A simple comparison of United Nations projections at a six-year interval (2000 and 2006) for the region's six largest countries demonstrates the relative uncertainty for 2025, not to mention 2050. Population figures were revised up for the Philippines

(+8.2% by 2025 and +9.4% in 2050) but were revised down for China (–3.6% by 2050), Japan (–6.1%), Indonesia (–4.6%), Vietnam (–3.1%) and, most strikingly, Thailand (–18.3%). The projected total population of these six major countries by the mid-twenty-first century has thus been reduced by more than 80 million persons (or –3.3% compared with projections made in 2000). Appendix Table A.2 presents population trends since 1950 by country and sub-region, and the forecasts for 2025 and 2050.

Table 4. Comparison of 2000 and 2006 United Nations projections (in thousands) for 2025 and 2050 for the six largest countries in the region

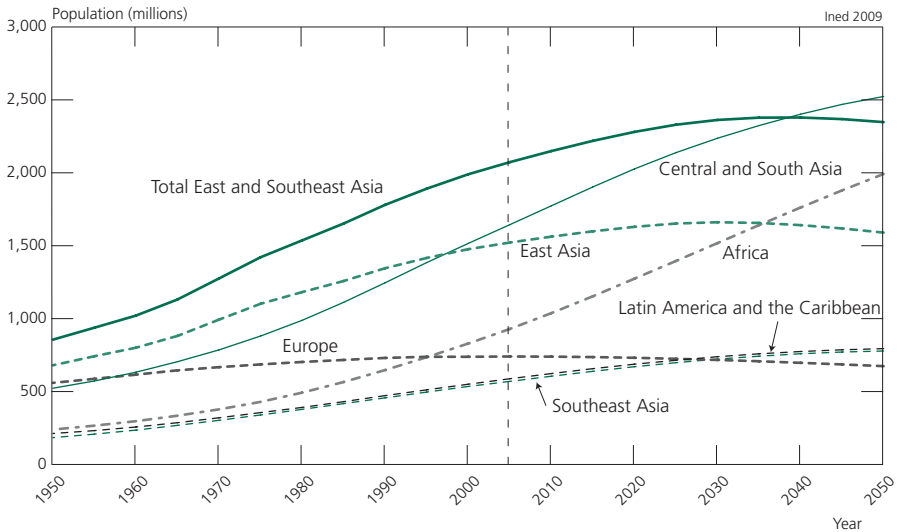
Region (country)	Population in 2005	Population in 2025			Population in 2050		
		2000 Projection	2006 Projection	Difference (%)	2000 Projection	2006 Projection	Difference (%)
East Asia	1,522,472	1,685,206	1,653,595	–1.9	1,665,197	1,591,242	–4.4
China	1,312,979	1,470,787	1,445,782	–1.7	1,462,058	1,408,846	–3.6
Japan	127,897	123,798	121,614	–1.8	109,220	102,511	–6.1
Southeast Asia	557,669	692,228	686,251	–0.9	800,302	766,611	–4.2
Indonesia	226,063	272,911	271,227	–0.6	311,335	296,885	–4.6
Philippines	84,566	107,073	115,878	+8.2	128,383	140,466	+9.4
Thailand	63,003	77,480	68,803	–11.2	82,491	67,376	–18.3
Vietnam	85,029	105,488	106,357	+0.8	123,782	119,971	–3.1
Whole region	2,080,141	2,377,434	2,339,846	–1.6	2,465,499	2,357,853	–4.4

Source: United Nations, 2000; United Nations, 2006a, medium variants.

The projected population growth for the region's countries is slowing down considerably, particularly in East Asia, but it still remains high in a good number of countries (between +1.3% and 2.0% per year on average in 2005-2010 in most Southeast Asian countries). Moreover, although population growth is already moderate at a regional level (+0.7% annual average in 2005-2010), it will still lead to a substantial increase in population in the next forty-five years, given that the region currently accounts for a third of the global population. Under the United Nations medium variant, the region's population will rise from 2.08 billion inhabitants in 2005 to 2.34 billion by 2025 (i.e. +12.5% over twenty years), then 2.36 billion in 2050 (or +13.4% since 2005). This is an increase of almost 280 million inhabitants between 2005 and 2050 (Figure 4) despite population growth that will be negative by 2040, mainly as a result of Chinese population trends. Nonetheless, relative demographic growth in East and Southeast Asia remains low compared with other parts of the developing world. The region's population will have multiplied by almost three (2.8) over a hundred-year period (1950-2050), while the populations of Africa, Central and South Asia, and Latin America and the Caribbean will have increased by

factors of 8.1, 5.0, and 4.6 respectively. The region's population will stabilize by around 2025, and will be overtaken by Central and South Asia by 2040 (Figure 4). That said, in 2050, the region will have four times as many inhabitants as Europe (compared with 2.9 today) and will still have 400 million inhabitants more than the African continent.

Figure 4. Population trends since 1950 in the main regions of the world and projections up to 2050 (in millions)



Source: United Nations (2006a) medium variant.

At the sub-regional level, trends between now and 2050 will vary. While East Asia already has very low growth (+0.5% per year on average in 2005-2010) and will hit negative levels by 2030, the population of Southeast Asia will continue to grow, albeit slowly (with a growth rate falling to +0.2% per year in 2045-2050), at least until 2050, because of a slower decrease in fertility compared with East Asia and China in particular.

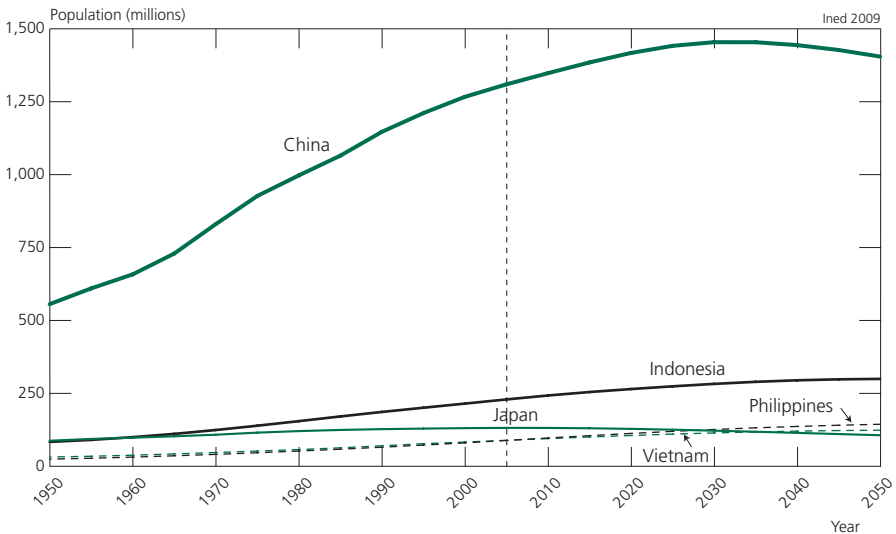
All of the East Asian countries except Mongolia will have negative population growth in 2050. These trend reversals will vary substantially between countries, however. While Japan's population will be in decline by 2005-2010, this should not happen before 2025 in South Korea, and 2035 in China and North Korea. However, with the exception of Thailand and Singapore, both of which are expected to see negative growth by 2035, all the other Southeast Asian countries will have positive population growth at least until 2050 – by which time the rate will probably not exceed 0.8% per year on average, except in Timor-Leste (Appendix Table A.2). Finally, in 2050, five countries (China, Japan, Indonesia, the Philippines, and Vietnam) will have more than a hundred million inhabitants, compared with just three today (China, Japan, Indonesia) (Figure 3). These projections nonetheless confirm that the relative demographic weight of each

Table 5. Population (in thousands) and growth (%) of sub-regions, 2005-2050

Sub-region and country	Population				Growth 2005-2050 (%)	
	1990	2005	2025	2050	Total	Mean annual
East Asia	1,343,912	1,522,472	1,653,595	1,591,242	+4.5	+0.2
Southeast Asia	440,574	557,669	686,251	766,611	+37.5	+1.3
East and Southeast Asia	1,784,486	2,080,141	2,339,846	2,357,853	+13.4	+0.3
o/w:						
China	1,149,069	1,312,979	1,445,782	1,408,846	+7.3	+0.3
Japan	123,537	127,897	121,614	102,511	-19.8	-0.9
Indonesia	182,847	226,063	271,227	296,885	+31.3	+1.1
as percentage of East Asian population						
China	85.5	86.2	87.4	88.5		
Japan	9.2	8.4	7.4	6.4		
as % of Southeast Asian population						
Indonesia	41.5	40.5	39.5	38.7		

Source: Appendix Table A.2.

Figure 5. Population trends of the five largest countries in the region, 1950-2050 (in millions)



Source: United Nations (2006a) medium variant.

country in the region will remain the same in 2050. At the sub-regional level, China's relative weight will increase slightly, from 85.5% in 1990 to 88.5% in 2050, mainly because of Japan's population decline (Table 5).

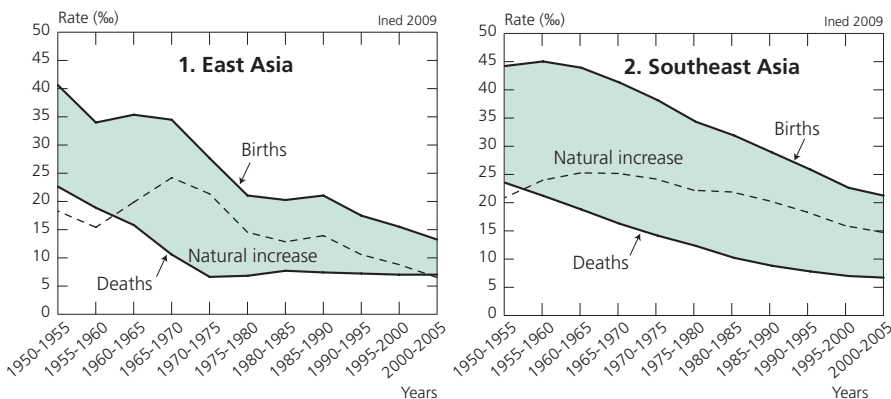
Despite a margin of error that persists, these near-certain scenarios make it easy to imagine that some countries will undergo strong demographic pressure on their marine, coastal and forest ecosystems, on their land, and water – a vital resource that is already scarce, especially in China. Global natural resources (oil, gas, etc.) will also be stretched by growing demand.

We shall now examine two factors, aside from migration, that influence population growth in any geographical entity: births and deaths. Changes in their trends over time determine what is known as the demographic transition model.

VI. Demographic transition models

The region as a whole started its demographic transition in the 1950s according to the traditional pattern. Initially high mortality figures (the crude death rate was around 23 per thousand in 1950-1955 in the two sub-regions, and life expectancy at birth was 42 years) went down fairly quickly, while the birth rate, also very high (around 41 per thousand in East Asia and 44 per thousand in Southeast Asia, or an average of six children per woman), decreased almost in tandem until the 1980s (Figure 6; Appendix Table A.3). The fertility decline then gained pace in the mid-1980s in East Asia but remained constant in Southeast Asia, while mortality continued falling, but more slowly. Population growth thus started levelling off in the mid-1970s. Today, the region is characterized by relatively low birth and death rates, at 15.2 per thousand and 6.8 per thousand respectively, or an annual natural growth rate of around 0.8%.

Figures 6.1. and 6.2. Demographic transition in the two sub-regions (East Asia, Southeast Asia)



Source: United Nations (2006a).

Taken together, the two sub-regions have followed a similar pattern of transition since 1950. While they have nearly-identical starting points, there is a discrepancy, however, in the timing of birth rate decline and in the endpoints observed in 2005. Southeast Asia currently has a birth rate more than eight points higher than that of East Asia (21.3 per thousand and 13.1 per thousand respectively), due to a decline that started later. On the other hand, as was the case fifty years ago, mortality now stands at very similar levels in the two countries, (6.7 per thousand and 6.8 per thousand, respectively, in 2000-2005) despite different trends over the period: rapid decline up to the mid-1970s followed by stabilization in East Asia, steady decline in Southeast Asia. As a result, the natural growth rates of the two sub-regions are different, with Southeast Asia's population growing 2.3 times faster than that of East Asia (rates of 1.46% and 0.63% respectively). As we shall see, East Asia's relatively early demographic transition compared with that of Southeast Asia is due mainly to the trends in China and Japan.

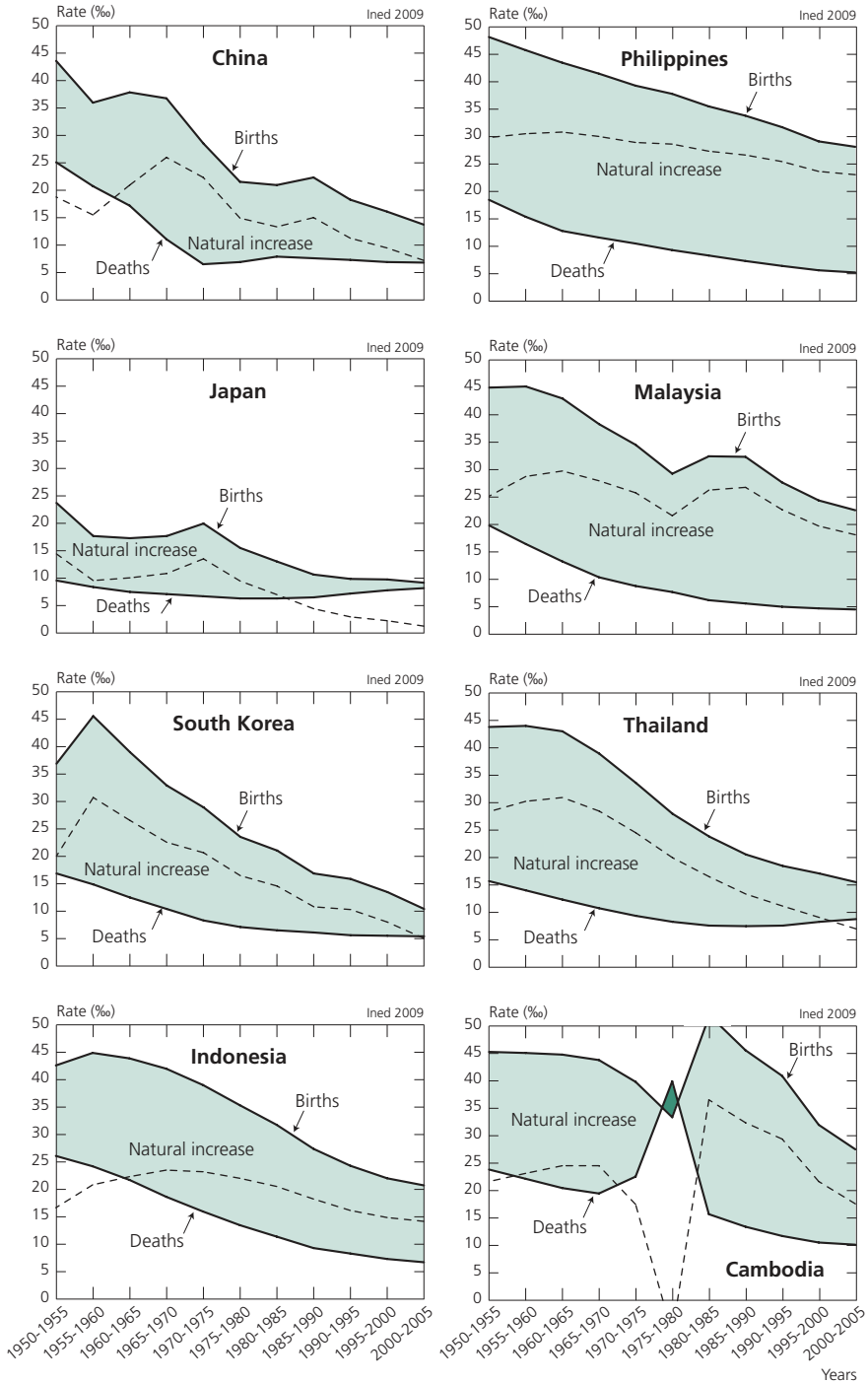
National demographic histories are highly diverse (Appendix Table A.3). This is illustrated by Figures 7.1 to 7.8 which present the patterns of transition from 1950 to 2005 in eight representative countries of the region. We can identify four main transition models:

- The *early transition model* is illustrated by Japan, whose demographic transition was completed as early as the 1950s. Mortality began decreasing at the start of the Meiji era (circa 1870) and continued falling until the years preceding the Second World War to a rate of below 10 per thousand. Birth rates started falling later, from around 1920, before dropping very sharply from the late 1940s. During the transitional phase, the Japanese population grew at a relatively moderate pace that never exceeded 2% per year. In Japan, life expectancy at birth is now the highest in the world (81.9 years for both sexes) and fertility is among the lowest (1.3 children per woman in 2000-2005), resulting in negative population growth since 2005.

- The *rapid transition model* is exemplified by China, South Korea and Thailand and, to a lesser degree, Singapore and North Korea. In the first three countries, the drop in mortality, which began in the early 1950s, was rapidly followed by a decrease in birth rates. Population growth thus decreased rapidly, falling below 1.5% per year between the late 1970s and the mid-1980s. In South Korea, China and Thailand, where life expectancy at birth is now relatively high (77.0, 72.0 and 68.6 years respectively) and fertility is below replacement level (1.2, 1.7 and 1.8 children per woman, respectively, in 2000-2005), natural growth is now very slow, standing at between 0.5% and 0.7% per year on average. In these countries, the demographic transition has essentially ended.

- The quite slow but regular *traditional model*, illustrated by Indonesia, Malaysia and the Philippines, is characterized by relatively stable population growth throughout the period under review. In these three countries, the decrease in mortality that began in the first half of the 1950s has continued

Figures 7.1. to 7.8. Examples of demographic transition between 1950 and 2005



Source: United Nations (2006a).

regularly to this day. Mortality rates are now low – between 4 and 7 per thousand – due to a still-young population. Overall, the birth rate decreased in tandem with the death rate, although there remains a significant gap in terms of levels (the birth rate is still above 20 per thousand in all three countries). Furthermore, Indonesia, Malaysia and the Philippines, the latter two countries especially, still have sustained population growth at 1.4%, 1.8% and 2.3% per year on average in 2000-2005. The figures indicate that the demographic transition has yet to be completed. Indeed, while mortality has decreased considerably, with a life expectancy at birth of around 70 years (68.6 years in Indonesia, 73.0 in Malaysia and 70.3 in the Philippines), fertility remains on average well above replacement level (at 2.4, 2.9 and 3.5 children per woman respectively). Vietnam, Mongolia, Brunei Darussalam and Myanmar are also following this traditional model of a slow, regular transition.

– Finally, the *late model*, an uncertain pattern, still at its early stages, is represented notably by Cambodia. As a result of a tumultuous recent history marked by war, Cambodia's demographic evolution over the past fifty years has been very irregular. It can be outlined as follows: 1) the period 1950-1965 characterized by a decrease in mortality and a stable birth rate, and hence sustained population growth (around 2.3% per year); 2) the period 1970- 1979 marked by increased mortality due to the civil war and the conflict with Vietnam, and a plummeting birth rate, resulting in negative population growth; 3) the period 1979-1990 characterized by a higher birth rate, a shrinking death rate, and very fast population growth (3.6% per year on average); and finally 4) the recent period, with a slowdown in population growth due to lower birth and death rates. Nonetheless, Cambodia's demographic transition is in its early days, with life expectancy at birth among the lowest in the world (56.8 years for both sexes in 2000-2005), decreasing fertility – though it remains at 3.6 children per woman – and a population growth rate of 1.8% per year on average. Laos and Timor-Leste are also in the group of countries following a late transition model.

Economic, educational and cultural development, social and demographic policies, poverty and political instability have determined, and will continue to determine in the next two or three decades, the actual transition paths taken by each of the countries in the region. These countries will maintain their diversity but, as we shall see, their adoption (or non-adoption) of demographic policies – and the strictness of their enforcement – will be a key factor in the acceleration of the transition process. We shall now examine the major changes in nuptiality, fertility, mortality and migration, upon which all demographic dynamics depend, whether past, present or future.

VII. Contrasting trends in nuptiality

In traditional pre-transitional societies, early female marriage is the norm. Men marry later, but on the whole, marriage is practically universal for both sexes. In this respect, however, the matrimonial model in the East and Southeast

Asian countries differs slightly from that of other regions of the developing world. Since the 1960s at least, age differences between spouses have been small, and women do not marry especially early. In addition, the overall marriage situation has changed only slightly over past decades, compared with the major shifts observed notably in North Africa. Appendix Tables A.4 and A.5 show, when available, country trends for mean age at first marriage of men and women over the previous decades, age differences between spouses,⁽¹⁹⁾ the proportion of never-married women by age, and figures for permanent celibacy, obtained from census data, surveys, or international databases.⁽²⁰⁾

1. A general trend of increasingly late marriage

The fertility transition that has taken place over the past few decades in most of the region's countries has not been accompanied by significant changes in nuptiality timing, partly because women were already marrying quite late in most countries by the 1960s and 1970s. Around 1970, women married on average between the ages of 20 and 24 in all of the region's countries for which data are available. These ages are much higher than those observed in many other developing countries at that time, particularly in South Asia (especially Bangladesh, India, Nepal, and Afghanistan) and Central and East Africa (Véron, 2008; Tabutin and Schoumaker, 2004).

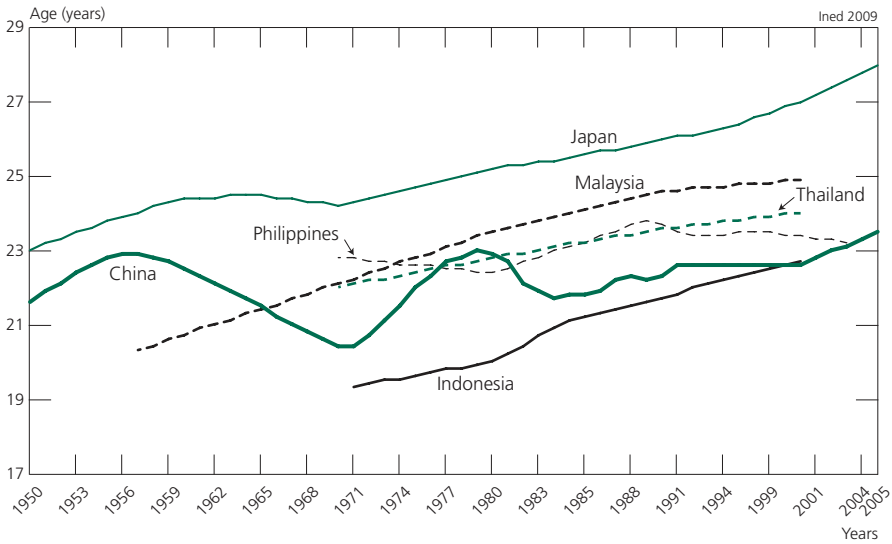
Today, the mean age at first marriage lies between 24 and 28 years for men and 22 and 25 years for women. Notable exceptions are Japan, South Korea and Singapore. These mean ages show that marriage occurs relatively early in relation to the trends observed in some other developing countries, especially in North Africa (mean age of women at first marriage is now 27 years in Morocco and more than 29 years in Algeria and Tunisia, for instance), but they continue to depart from some South Asian countries such as India, where women continue to marry at a very early age (the median age of women at first marriage is 17 years according to the NFHS/DHS survey of 2005-2006), and West Africa.

Due to a lack of full annual series for most of the countries in the region we used interpolation to track general trends. While these interpolations may mask possible irregularities specific to certain national situations, they nonetheless provide a general view (Figure 8). We can thus see that within the region, today as in the 1970s, women marry latest in Japan, South Korea and Singapore, with a mean age at marriage of more than 26 years (Appendix Table A.4). Marriage is earliest in Cambodia, China, Indonesia, Laos, Philippines, and Vietnam, at around 23 years for women and 25 years for men. That said, the mean age at first marriage for women has increased by two to three years

(19) Age difference between spouses is calculated as the difference between the mean age of men and women at first marriage.

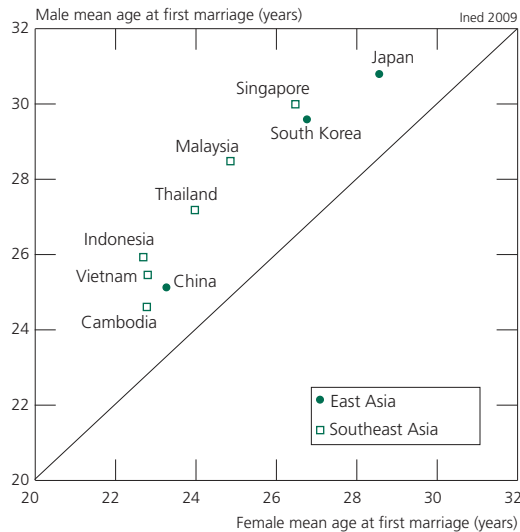
(20) *World Fertility Report, 2003 and World Marriage Patterns, 2000*. Data for Japan from http://www.stat.go.jp/English/data/handbook/c02cont.htm#cha2_2

Figure 8. Trends in female mean age at first marriage in selected countries of the region (estimates based on interpolations or reconstitutions using data available for certain years)



Sources: For Indonesia and the Philippines: interpolations from census and DHS survey data. For China: 1950-1960: Blayo (1997); 1961-1970: interpolations; 1970-1987: national survey on fertility, 1988 (in Feng, 1996); 1988-1992: national survey on fertility, 1992; 1992-1999: interpolation; 2000: mean age at first marriage estimated from proportion of never-married in 2000 census (Hajnal method); 2001-2005: interpolation; 2005: intercensal survey of 2005. For Malaysia and Thailand: interpolation from census data. For Japan: interpolation from census data and civil records.

Figure 9. Male and female mean age at first marriage, circa 2000



Sources: DHS surveys and national censuses.

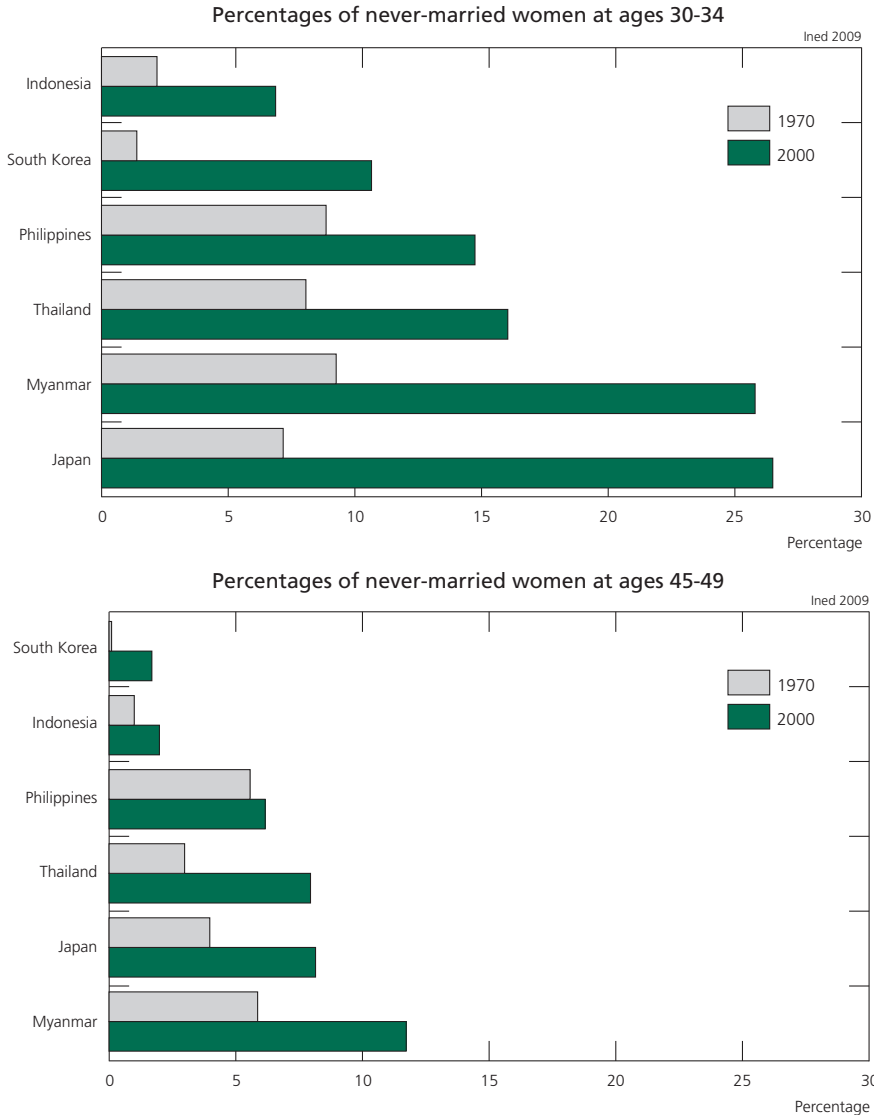
in the region over the past 30 years. It has also increased for men but at a slower rate overall than for women, resulting in a slow but generalized narrowing of the gap in age at first marriage between the sexes. It is now between 2 and 4 years in the countries for which data are available (Figure 9). In the region's two large Muslim countries, Indonesia and Malaysia, age differences between spouses are now comparable to those of their non-Muslim neighbours (Appendix Table A.4). They are also similar to those observed in most Muslim countries of Africa and the Middle East (Iran, 3.2 years in 1996; Tunisia, 3.7 years in 2001; Algeria, 3.4 years in 2002, in Tabutin and Schoumaker, 2005) but are much smaller than in Bangladesh, a South Asian Muslim country, where the age difference between spouses was still above 6 years in 2001.

China, for which we have full annual series from the 1970s to the 1990s, follows an atypical pattern marked by a notable increase in the female mean age at first marriage in the 1970s, a trend reversal in the first half of the 1980s followed by a progressive return to older ages at marriage (Figure 8). This trend is a direct result of birth control measures adopted in China during this period. The measures initially placed emphasis on late marriage in the 1970s, before shifting almost exclusively to a one-child policy starting in 1979 (Scharping, 2003), as we shall see later. In the Philippines, where permanent celibacy in women is the highest in the region after Singapore, Japan and Myanmar, the mean age at first marriage for women has only increased slightly since the 1970s.

The period of singlehood has lengthened in most countries in the region (Figure 10). In 1970, at ages 30-34, the proportion of never-married women was under 10% in all those for which data are available, even in Japan where the female age at first marriage was already the highest. Thirty years on, these proportions had doubled and even tripled in some places, including Japan (from 7% in 1970 to 27% in 2000), Thailand (from 8% to 16%), Indonesia (from 2% to 7%) and Myanmar (from 9% to 26%). This is particularly true of the region's major cities. For instance, the proportions rose from 6% to 31% in Hong Kong, from 11% to 33% in Bangkok, and from 4% to 14% in Jakarta (Jones, 2004), reflecting a clear change in behaviour.

As yet, the longer period of singlehood has not necessarily been accompanied by an increase in permanent celibacy. In China, while the share of never-married women aged 20-24 rose from 46% to 58% between 1982 and 2000 (Table 5), very few of them went on to forgo marriage entirely. Beyond the age of 40, only 0.2% of Chinese women have never been married – an unusual situation compared both with other countries in the region, and with other countries in the developing world. In the other East and Southeast Asian countries for which data are available, permanent celibacy has been rising since the 1960s (Jones, 2004). It now concerns between 2% (in Indonesia) and 13% of women (in Singapore). Behind Singapore, the countries in which female permanent celibacy rose the most over the transitional and post-transitional periods are

Figures 10.1 and 10.2. Percentages of never-married women aged 30-34 and 45-49 in selected countries of the region in 1970 and in 2000



Source: Jones, 2004 (based on census data).

Japan (where 8% of women were never-married at age 45-49 in 2005) and Thailand (where the share rose from 3% in 1960 to 8% in 2000). There is also a striking contrast between women in mainland China, for whom marriage remains nearly universal, and women of Chinese origin in Singapore and the Malaysian capital Kuala Lumpur, for whom permanent celibacy had reached 13.5% and 10% respectively in 2000 (Jones, 2004). Korean women are similar

to those of mainland China in this respect. In South Korea, despite a higher female mean age at first marriage, permanent celibacy is still rare, at only 1.7% of women aged 45-49 in 2000.

Elsewhere, with the exception of Vietnam and the Philippines (for which DHS data show ambiguous trends), these percentages have only increased slightly over the past 30 years. In Indonesia and Malaysia, while a delay in marriage is also observed at the national level – the percentage of never-married women aged 20-24 rose from 22.3% in 1980 to 41.2% in 2002-2003, and from 51.3% in 1980 to 68.5% in 2000, respectively – the change was not accompanied by a significant increase in permanent celibacy among women, the proportion standing at 3.8% at ages 45-49 in Malaysia (in 1991) and 2.0% in Indonesia (in 2002-2003).

With nearly 12% of women still never-married at ages 45-49, Myanmar is an exception in the region, and socioeconomic factors (level of education, urbanization, etc.) do not seem to account for this situation. Jones (2007) nevertheless provides some explanatory details, describing a lack of social pressure to marry, as well as the difficulty of obtaining a divorce in case of discord. Moreover, there is still strong social stigma attached to divorce. Finally, in Myanmar, unlike other countries in the region (such as China), unmarried women do not have less social worth.⁽²¹⁾

Despite longer periods of singlehood for both men and women in the past three decades or so, marriage remains the largely predominant social norm in the region. Differences between countries, and occasional marked variations between regions of a single country, are nonetheless observed, as our examples shall show.

2. Differences in nuptiality timing within countries

The national data available mask large differences within countries in certain cases. In China, more than five years separate the age at first marriage of women in Yunnan province (22.2 years in 2005) and those in the Hong Kong Special Administrative Region (which reverted to China in 1997) or Macau (transferred back in 1999), where the mean age at first marriage was 27.5 years (in 2001) and 27.9 years (in 1998) respectively, a figure closer to that for Japanese women. In Indonesia, where the median age at first marriage is 19.5 years nationally, the differences in nuptiality timing for women are less marked than for China but are present nevertheless. While median age at marriage is above 21 years in the provinces of Bali, Jakarta and Northern Sumatra according to the latest DHS survey (2002-2003), it is still below 18 years in West Java. Disparities by level of education are particularly marked. Among women, the median age at first marriage is 17.1 years for uneducated women, compared with 23.5 years for those with some secondary or higher education.

(21) We thank Gavin Jones for the data.

Gaps are narrower in the Philippines and Vietnam. According to the latest DHS data (2003), the median age at first marriage in the Philippines is 23.8 years in the National Capital Region, but falls below 20 years in the Autonomous Region of Muslim Mindanao, an island in the southern Philippines destabilized by Muslim separatist movements. In Vietnam, a gap of nearly three years exists between the median ages at first marriage for women living in the southeast (22.8 years) and those living in the northern mountain regions (20.0 years), while a four-year gap separates uneducated women and women with at least some secondary education. In Cambodia, meanwhile, where women tend to marry early in general, nuptiality timing for women is relatively homogeneous. According to the latest DHS survey in 2005, median age at first marriage ranges from 19 to 21 years for women throughout the country.

In Indonesia, the Philippines, and Vietnam, level of education remains a major factor in nuptiality timing (Table 6). The median age at first union is especially low for uneducated women, at under 20 years everywhere (as low as 17.1 years in the Philippines in the early 2000s), while for women with at least some secondary education it is three to six years later. In China, where the legal marrying age for women is 20 years, the disparities in nuptiality timing by level of education are smaller. The mean age at first marriage for women was 21.4 years according to the 2000 census, compared with 23.7 years for women with at least some secondary education.

Table 6. Median age of women at first marriage by place of residence and level of education in countries of the region with DHS data

Country/ Survey year	Place of residence		Level of education			Overall
	Urban	Rural	None	Primary	Secondary or above	
Cambodia						
2000	20.6	19.9	19.7	19.8	21.4	20.0
2005	20.7	20.0	20.0	19.9	21.1	20.1
Indonesia						
1987	18.8	16.6	15.8	17.5	21.3	17.8
1994	20.0	17.4	16.5	17.8	21.9	18.1
2002-03	20.3	18.3	17.1	18.1	23.5	19.5
Philippines						
1993	22.3	20.7	18.9	19.6	21.1	21.6
2003	22.9	20.9	18.2	19.6	21.2	22.0
Vietnam						
1997	23.5	20.8	20.5	20.6	23.7	21.3
2002	23.6	20.6	19.3	20.6	23.4	21.1
<i>Sources:</i> DHS surveys, corresponding years						

There are also disparities between ethnic groups. In Malaysia, despite growing social interaction between the country's three major ethnic groups (Chinese, Malay and Indian) since the 1970s, inter-ethnic marriage remains limited, and the marriage behaviour specific to each of the groups remains largely unchanged (Subranamian, 1997). Compared with the Chinese, the Malays are traditionally more inclined to marry early. In the 1950s, 50% of women of Malay origin married before age 20, often to husbands chosen for them at puberty, compared with only 10% of women of Chinese origin (Leete, 1996). In 2000, despite a substantial and generalized postponement of marriage, the differences between the two ethnic groups persisted. At age 30-34 years, 18.2% of Malaysian women of Chinese origin were still single, compared with 9.7% of women of Malay origin. This also holds true in Singapore, where women of Chinese origin marry later and are less likely to opt for permanent celibacy than women of Malay origin. (At age 45-49 years, the percentage of never-married women stood at 13.5% and 7.5% respectively in 2000.) (Jones, 2004).

Overall, the longer mean duration of female celibacy in all countries of the region can be linked to the improvement in educational and economic opportunities for women over the past few decades. Better access to education and employment has encouraged female economic emancipation by reducing women's financial dependence on men. This trend may also explain why parents are now less inclined to marry off their daughter at an early age, often in arranged marriages. If she remains single, they can maintain control over their employment income, this control being passed on to the spouse after marriage. This holds true in many countries of the region, despite the diverse range of cultural and religious environments (Jones, 2007). Moreover, the increasing numbers of women in the workforce and improved educational levels have contributed to redefining the role of women in the family and in society. There are changes in the way marriage is perceived, especially among the most highly-educated women, who cast an increasingly critical eye on the traditional distribution of household tasks and roles. This has been demonstrated in Japan, where "working as a single person while living with parents and contributing little to household expenses means that most single persons in Japan can afford a carefree and comfortable lifestyle" (Retherford et al., 2001).

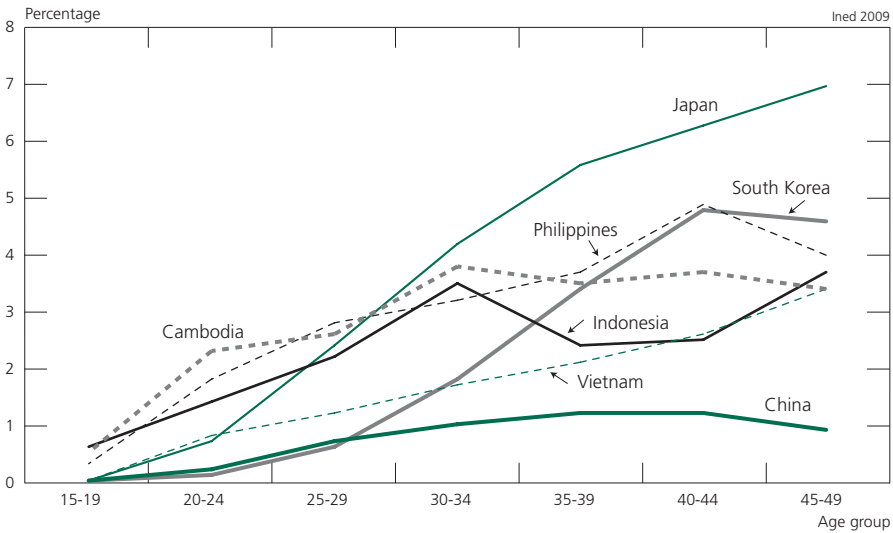
3. Diverging divorce trends

In all countries for which data are available, with the exception of the region's most developed nations, namely Japan and South Korea, unions are generally stable and only lead to divorce in fairly rare cases. Nonetheless, major discrepancies exist, with unions being dissolved more frequently in the most urbanized and most economically developed countries. Crude divorce rates,⁽²²⁾ which provide an imperfect measure of divorce frequency in the populations

(22) The crude divorce rate is the ratio of the number of divorces in a given year to the mean total population for the year. It is given per thousand.

concerned, are 0.4 per thousand in Mongolia and 0.5 per thousand in Vietnam, 0.8 per thousand in Singapore, and 1.3 per thousand in China. The highest rates are recorded in Japan and South Korea (2.1 per thousand and 2.9 per thousand respectively⁽²³⁾), where they approach the rates observed in many Western European countries. The number of divorced women who have not remarried is highest in Japan from ages 30-34. It is lowest for all age groups in China (Figure 11).

Figure 11. Proportions of divorced women who have not remarried, by age, circa 2000 (as a percentage of the age groups studied)



Sources: for Cambodia, Vietnam, the Philippines and Indonesia: DHS surveys, corresponding years. For China, Japan and South Korea: 2000 census.

That said, the situation within the region is heterogeneous. While divorce rates are rising in Japan, South Korea and China, they have decreased considerably in the Muslim populations of Indonesia, Malaysia and Singapore (Jones, 2004). Until recently, these Muslim populations had some of the highest divorce rates in the world, as Islamic law was, for men, particularly tolerant in this respect. Divorce is socially acceptable in these societies, despite a widespread tradition of arranged and often early marriages (Tom, 1993). The traditionally high divorce rates in Muslim populations have also been attributed to kinship systems and family structures in these countries, which afford women a relatively high social status. Indonesian women have traditionally played a predominant role in both the public and private spheres. In past decades,

(23) 2004 data, except for Vietnam (2002) and Mongolia (2003). Data from the UN Demographic Yearbook 2005, available at <http://unstats.un.org/unsd/demographic/products/dyb/dyb2004.htm>, not available for other countries in the region.

however, the progressive loosening of traditional family solidarity, a recognized factor in union instability, as well as a delay in age at first marriage, may have strongly contributed to the downtrend in divorce rates (Heaton et al., 2001).

In Malaysia, where unions generally remain stable, divorces occur more frequently in Muslim couples of Malay origin than in Malaysians of Indian or Chinese origin, with the latter having the lowest divorce rates. Moreover, women of Malay origin are more likely to remarry after a divorce (78% in 1989), compared with Malaysian women of Indian or Chinese origin (20%).

In the Philippines, remarriage is still rare and represented a little over 2% of all unions contracted in 2003. Furthermore, it mainly concerns men. The sex ratio for remarried persons in that year was 221 men for 100 women.⁽²⁴⁾ In China, remarriage of widowed or divorced women is still highly stigmatized and thus remains rare.

VIII. Fertility: significant shifts of intensity and timing

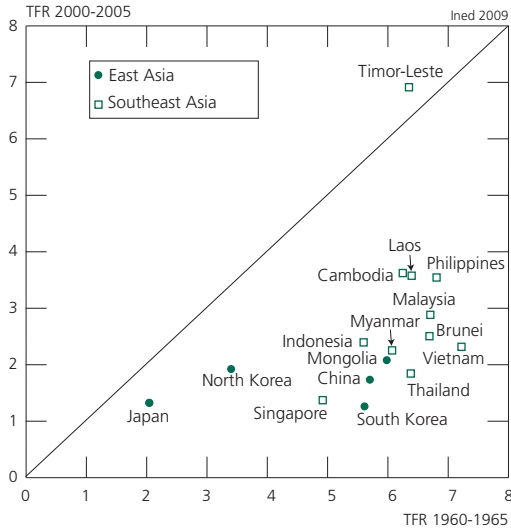
Fertility rates throughout East and Southeast Asia have declined sharply in the last decades. From over five children per woman at the beginning of the 1960s, the total fertility rate in the two regions dropped to under 3 children per woman in the early 1980s, before falling below replacement level at the beginning of the 2000s (Appendix Table A.6). Yet the general fertility decline conceals divergences between rates in different countries, social groups and places of residence.

1. An almost universal decrease, albeit at variable rates

Comparative analysis of the total fertility rates in the sixteen countries of East and Southeast Asia in 1960-1965 and 2000-2005 (Figure 12) indicates clearly that the fertility decline is general, though highly variable across the region. The fertility transition is largely completed in six countries (China, North Korea, South Korea, Japan, Singapore, Thailand), with a mean number of children per woman currently below replacement level. With total fertility rates below 1.4 children per woman, Japan, Singapore and South Korea are among the world's "lowest-low" fertility countries. By contrast, the average number of children per woman still exceeded 3.5 in 2000-2005 in countries such as Cambodia, Laos and the Philippines. At 7 children per woman in the 2000-2005 period, Timor-Leste, an exceptional case at regional and global levels, has one of the highest fertility rates in the world. Despite these persistent disparities, and with the exception of Timor-Leste, the significant fertility differences across the region have considerably declined in the last forty years, with a standard deviation decreasing from 1.38 in 1960-1965 to 0.81 in 2000-2005.

(24) Data from the Philippine National Statistics Office, available online at <http://www.census.gov.ph/data/sectordata/sr062006tx.html>

Figure 12. Total fertility rates from 1960-1965 to 2000-2005 in the sixteen countries of the region



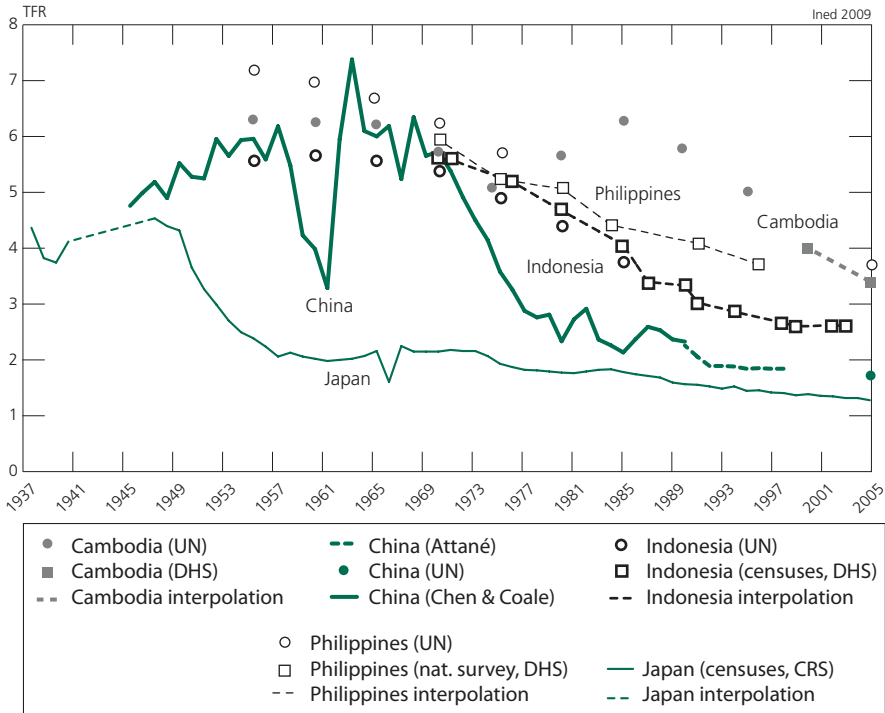
Source: United Nations (2006a) (Appendix Table A.6).

Several well-documented cases will be used to illustrate the diversity and specificity of transitional histories across the region.

2. Five examples of fertility transition since 1950

Five countries (Cambodia, China, Indonesia, Japan and the Philippines) are highly representative of the general trends observed across the region (Figure 13), although the availability of statistical data varies from one country to the next. Though sometimes incomplete and varying in length, the time series available for some countries, including Japan, Indonesia and the Philippines, are nonetheless relatively reliable thanks to the Demographic and Health Surveys (DHS), national surveys, censuses and civil registration data used for the purpose. For Japan – the best documented case – near complete annual series based on civil registration are available from 1937. In the case of Cambodia, the available series were established on the basis of the DHS surveys conducted in 2000 and 2005 and were completed by interpolations based on United Nations estimates (2006a). In the case of China, for which neither DHS data nor complete birth records are available, annual series reconstituted by Chen and Coale (1993) for the 1949-1990 period and by Attané for the 1990-1998 period were used, in addition to United Nations data for 2005 (2006a). Age-specific fertility rates are based on DHS data for Indonesia and the Philippines, the National Office of Statistics for Japan, censuses for China, and United Nations estimates for Cambodia.

Figure 13. Total fertility rates in five countries of the region over the twentieth century



Sources: For Indonesia, the Philippines and Cambodia: interpolations based on DHS and national census surveys; for China: Chen & Coale, 1993; Attané, 2001 and United Nations 2006; for Japan: interpolations based on civil registration and national census data.

The reconstituted series show major disparities in fertility trends since the mid-twentieth century. As we shall see, inter-country variations in the timing and intensity of birth control policies partly explain such disparities.

The earliest fertility transition in the region occurred in Japan, where the mean number of children per woman declined sharply from the mid-1940s, decreasing from 4.5 children in 1947 to below replacement level (i.e. 2.0 children) as early as 1957 – a decline of over 50% in just ten years. Since this period, the total fertility rate has fallen at a consistent and continuous rate, reaching one of the lowest levels in the world at under 1.3 children per woman since 2003. Though it occurred later (in the 1970s, i.e. roughly twenty five after Japan), the fertility decline in China was just as rapid and impressive as in Japan: in just ten years, the total fertility rate fell by over 50%, from 5.7 children per woman in 1970 to 2.8 in 1979. After a period of stagnation at around 2.5 children per woman in the 1980s, it fell below replacement level at the beginning of the 1990s, and currently stands at around 1.7-1.8 (Yuan et al., 2003; Wang, 2003). Note that in China, as observed earlier in South Korea, the fertility decline was not paralleled by an increase in permanent celibacy. Since the

1970s, Thailand's fertility rate, which is not detailed here, has followed a similar trend to that of China, falling from 5.0 to 1.8 children per woman between the early 1970s and the early 2000s (Appendix Table A.6).

In Indonesia, as in Myanmar, the fertility transition began at around the same time as in China, though it was both more regular and less pronounced. Standing at a comparable level to that of China in the late 1960s (at around 5.5 children per woman), Indonesia's fertility rate began a moderate though steady decline at the end of the 1970s, before eventually levelling off at around 2.4 children per woman in the early 2000s. Indonesia is therefore an intermediate case in the examples studied here, between China and Japan, on the one hand, and the Philippines and Cambodia on the other. The Philippines and Cambodia still lag behind in transitional terms.

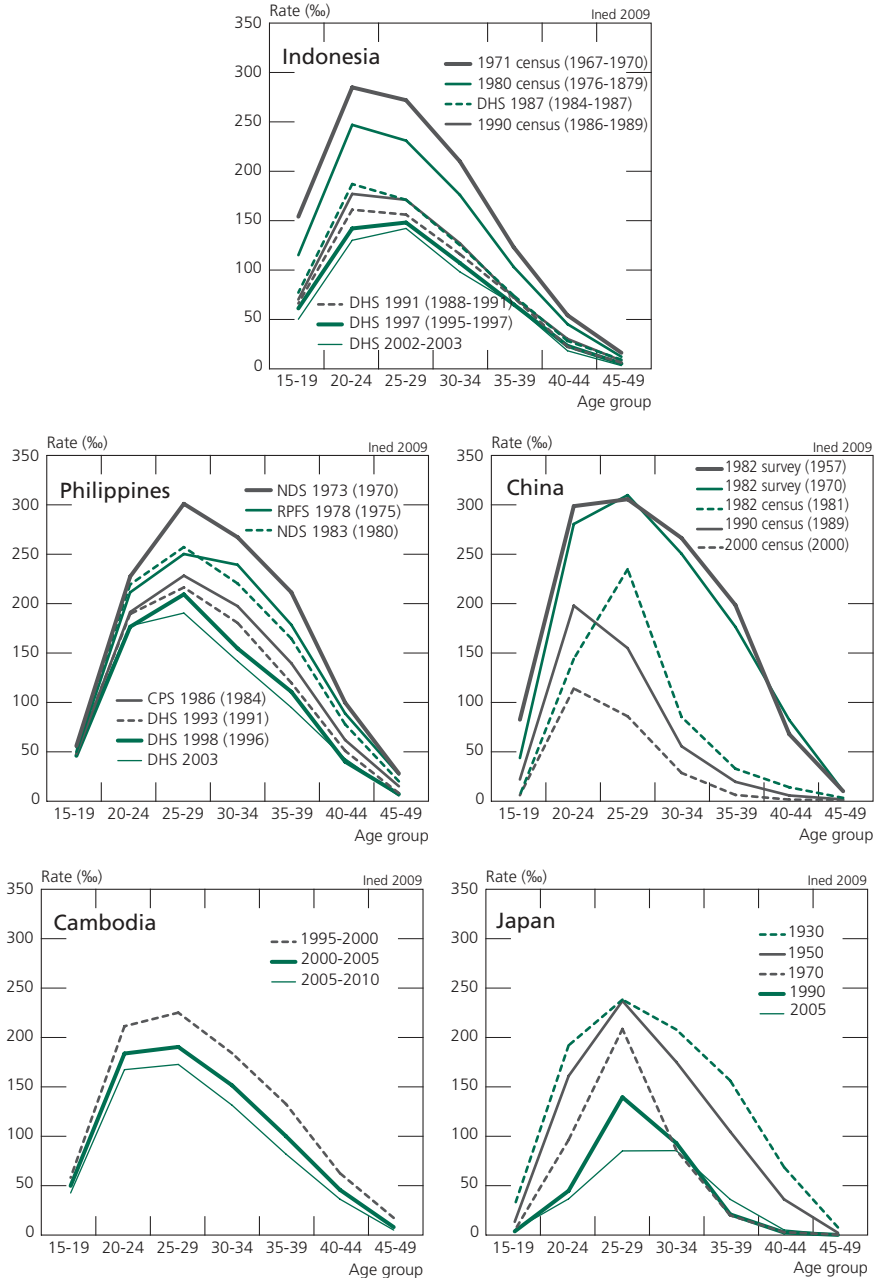
In the 1950s, the Philippines had a total fertility rate of 7.3 children per woman – the highest level in the region. The demographic surveys conducted between 1968 and 1993 and the 1998 DHS indicate that fertility in the Philippines only marginally declined in the two following decades, remaining above 5 children per woman until the mid-1980s. A further decline then brought the total fertility rate down to 4.1 children in 1993 and 3.7 children in 1998, well above that of Indonesia (2.8). Yet neighbouring Indonesia presents a number of similarities with the Philippines, particularly in human and geographical terms. Though having a different religious make-up,⁽²⁵⁾ both countries are marked by a high level of religious practice (Rallu and Pictet, 2002). According to United Nations estimates, the gap between the two countries has widened in recent years, with fertility rates of 3.5 children per woman in the Philippines versus 2.4 in Indonesia in 2000-2005 (Appendix Table A.6).

Cambodia's fertility rate was still above 5 children per woman at the beginning of the 1990s, indicating a particularly late transition, not unlike neighbouring Laos. The rate remains high today, at 3.6 children per woman, comparable to that of the Philippines, and over 1 point higher than the regional average in Southeast Asia (2.5 children in 2000-2005).

As noted above, the pronounced changes of intensity in China and Japan were paralleled by distinct shifts of timing in all five countries. Figures 14.1 to 14.5, which show the changes in age-specific fertility rates over the relevant period, indicate that fertility has declined significantly, though at variable rates, in every country and for every age group. The largest relative decline is observed for ages 20-29, the ages when fertility is highest, with some differences between countries. Despite a rapid fertility decline, childbearing in China occurs at young ages and its intensity declines sharply from age 25: the fertility rate of women in the 30-34 age group is four times lower than that of women in the 20-24 age group, whereas fertility remains more or less equally distributed across two age groups in the four other countries studied here: 20-24 and

(25) 87% of Indonesians are Muslim, whereas Christianity is the majority religion in the Philippines (95%, including 87% of Catholics).

Figures 14.1 to 14.5. Age-specific fertility rates (per thousand) in Indonesia, the Philippines, China, Cambodia and Japan in the last decades



Note: the years in brackets are the reference years used for measuring fertility.

Sources: Indonesia: censuses and DHS, corresponding years; Philippines: DHS;

China: 1982 fertility survey and 1982, 1990 and 2000 censuses;

Cambodia: United Nations, 2006a; Japan: civil registration and census data.

25-29 in Indonesia, the Philippines and Cambodia, 25-29 and 30-34 in Japan. Thus, for a below-replacement number of children in both China and Japan, China is characterized by earlier timing of fertility and a much lower mean age at maternity at the beginning of the 2000s.

As noted above, the fertility transition in Indonesia and the Philippines has been a slower and more gradual process than in China, with none of the sudden shifts of behaviour observed in that country in the 1970s in the wake of the third birth control campaign.

3. A diverse history of family planning policies

Like other developing regions of the world, most of the countries of East and Southeast Asia have adopted family planning policies designed to control population growth. This was notably the case in the most populated countries of the region: Japan, China, Indonesia, Vietnam, the Philippines, Thailand, but also Malaysia, South Korea, Singapore, and, much more recently, Cambodia, Laos and Mongolia.

Yet where such measures have been implemented, they have assumed highly diverse forms, with objectives and means that have sometimes tended to target families or health (such as in Japan, the Philippines, Cambodia and Laos) rather than birth control *per se* (such as in China, Singapore, South Korea, Thailand and Vietnam). They have been enforced with varying degrees of rigour and with mixed results amid highly differentiated cultural, social, political, economic and religious contexts.

Japan was the first country to implement an official policy aimed at promoting family planning. Primarily designed to restrict the number of induced abortions which, because of stringent legal restrictions, were for the most part clandestine and therefore unsafe, the goals of Japan's family planning policy were more health-oriented than demographic. After liberalizing induced abortion as early as 1948 under the Eugenic Protection Law, and legalizing the sale of chemical contraception in 1949, the Japanese authorities implemented educational and information programmes on contraceptive techniques in 1952, under the aegis of the Ministry of Health. Yet these measures were more a reflection of the government's desire to satisfy public demand for contraception and thereby restrict the use of induced abortion than of an openly favourable position on birth control. The fertility decline was already well under way by the beginning of the 1950s. It was thus rapidly acknowledged that although the official family planning policies had already yielded some results, the rapid decrease in fertility was primarily the consequence of individual behaviour, as the rationale for birth control and its practice were already well-established in Japanese society. To this day, though Japanese fertility levels are among the lowest in the world, Japan has no government policy aimed at increasing fertility. State initiatives in this area are limited to facilitating the work-family balance for women by offering better services, especially in the realm of childminding.

Like Japan, South Korea and Singapore are now among the countries with the lowest fertility rates in the region. The current situation is partly the result of widespread support for the family planning policies implemented in the 1960s, which were built around the development of contraceptive use. In a context of rapid mortality decline and strong economic growth, period fertility levels in both countries declined sharply, falling below replacement level as early as 1975 in Singapore and 1983 in South Korea. The authorities in Singapore and South Korea quickly revised the initial targets of their family planning policies to limit the effects of the rapidly declining number of children on the population age structure. As early as 1984, Singapore adopted a series of resolutely pronatalist measures with a view to stabilizing fertility above replacement level through an increase in the number of three-child families. However, Singapore's policy has yet to yield any results, since the current mean number of children per woman stands at around 1.4-1.5. South Korea's demographic policy turnaround occurred later and was less explicit. Only in 1996 were new measures adopted to reverse the effects of those implemented thirty five years earlier (Barbieri, 2006). Yet the new policy does not emphasize population growth so much as quality of life and well-being (Kim, 2000).

Shortly after Japan, China also adopted a birth control policy. Yet until the early 1970s, the various attempts to limit population growth through the first two birth-control campaigns, launched respectively in 1956 and 1962, had no visible impact on birth rates, with the exception of a few large urban areas. It was only from 1971, with the launch of the third national birth-control campaign, that the measures taken by the Chinese authorities began to generate a rapid fertility decline. Late marriages and late childbearing, in addition to birth spacing and smaller family size, were promoted as of 1973, often through highly authoritarian means (Blayo, 1997). Under the impact of these measures, fertility declined from 5.7 children per woman in 1970 to 2.8 children per woman in 1979. Following the example of Japan and Singapore,⁽²⁶⁾ this was the most pronounced decline ever observed over such a short period of time.⁽²⁷⁾ Yet these advances were still deemed inadequate both to prevent a surge in births when the large birth cohorts born at the beginning of the 1960s reached childbearing age and to enable China to develop its economy. So in 1979, the Chinese authorities implemented their drastic one-child policy, which applied to 95% of couples in urban areas and to 90% of couples in rural areas. But the new policy met with widespread resistance, especially in rural areas, and in 1984 the Chinese government relaxed the restrictions on having a second child for rural couples. Since the 1980s, China's birth control policy has been

(26) In Japan, fertility declined by half between 1947 and 1957. In South Korea, a similar decrease occurred between 1965 and 1975.

(27) Even in Algeria, where the fertility transition was particularly fast and sudden, it took around fifteen years for fertility to decline by half, decreasing from just over 6 children per woman in 1980 to barely more than 3 children per woman in 1995 (Ouadah-Bedidi and Vallin, 2000).

governed by provincial regulations that take account of local conditions to define the maximum authorized number of children per woman, which varies between 0.8 and 3.4 children per woman on average in the different provinces (Guo et al., 2003). However, the decline of period fertility to below replacement level at the beginning of the 1990s and the current limited rate of population growth in China (0.6% per year in 2007) are yet to have an impact on the national birth control policy, which remains highly restrictive and coercive.⁽²⁸⁾

The family planning policies implemented in China and later in Vietnam present a number of similarities. Not unlike the trends observed in the second half of the 1950s in China, the 1960s in Vietnam were marked by a developing political awareness of the need to control population increase to guarantee economic growth and, by the same token, to further the edification of a socialist state. The Vietnamese government implemented its first family planning policy in 1963. The policy imposed family size restrictions and minimal birth spacing that remained in force until the country was reunified in 1976. Vietnam's family policy, which was eventually implemented throughout the current, reunited Vietnam, thus presents a number of similarities with China's family policy, particularly the almost equally authoritarian implementation of the policy through incentive and repressive measures. The energetic implementation of a birth control policy in Vietnam was marked by the decisions of the 5th National Congress of the Communist Party in 1982 and by the creation of a National Committee for Population and Family Planning in 1984. The "one or two children" per family policy, officially instituted in 1988, further strengthened the arsenal of population control measures deemed necessary for improving quality of life, and resulted in a rapid fertility decline from the late 1980s to the late 1990s. There are now large local variations in the implementation of national policy in both China and Vietnam, since local governments are relatively free to decree their own reward and sanction policy based on demographic, economic and political considerations (Attané and Scornet, 2009).

The first birth control policies adopted in Indonesia, initially included in mother-and-child health care programmes, were implemented in 1956 on the initiative of private organizations and under the auspices of the International Planned Parenthood Federation. But it was only after President Suharto came to power in 1968 that the Indonesian government took measures to promote family planning, focusing in particular on the restriction of fertility to two children per woman, birth spacing, improvement of the role and status of women, training and education of young people and the development of new norms governing family and collective life. The implementation of these measures was dependent on the initiative of local and religious institutions. These measures were greeted with mixed feelings in Indonesia. Hence the paradox of the country's fertility transition: unlike what is commonly observed

(28) For a more detailed study of the Chinese birth control policy, see in particular Attané (2005).

elsewhere, it was not marked by delay in mean age at first marriage, by a generalization of modern contraception, or by induced abortion. Instead, Indonesia's fertility transition was more the result of a conscious desire on the part of the Indonesian people to reduce fertility, in particular through prolonged maternal breastfeeding (Courbage, 2002).

The family planning programme in the Philippines – a non-governmental initiative – began in the 1960s. A Population Commission endowed with a strictly consultative role was set up in 1969. In 1971, family planning was incorporated into the national development strategy with a view to lowering annual population growth from 2.5% in 1978 to 2.1% in 1987 and to increasing the contraceptive prevalence rate to 40% in 1982 and 50% in 1987. These targets were not achieved, since annual population growth still stood at 2.4% on average in the 1985-1990 period. In the ensuing years, under the presidency of Cory Aquino (1986-1991), the country's national birth control policy lost steam through lack of political and financial support (Rallu and Pictet, 2002). Rather than seeking to reduce fertility, its chief objective was to improve mother and child health. The Catholic Church remained a strong opponent of family planning, and made its opposition to contraception the primary focus of its fight against the Ramos administration in the 1990s. Resistance from the Church constitutes a significant obstacle to fertility decline in the Philippines, where birth rates remain among the highest in the region.

In Malaysia, where recent demographic trends are closely connected with the economic and above all ethnic situation, family planning has become distinctly more politicized. In the mid-nineteenth century, the population of Malaysia was almost exclusively Malay. By 1911, following large-scale Chinese and Indian immigration, the proportion of Malays had declined to just 57% of the population, versus 29% of Chinese and 10% of Indians. By the time the Federation of Malaysia gained independence in 1957 after almost a century as a British protectorate, ethnic Malays had become a minority, making up less than 50% of the population. The country's first family planning initiatives date from this period. At the end of 1964, after more than two decades of significant population growth (over 3% per year), the Malaysian government instituted family planning as a national policy in a context of social and economic progress resulting from the development plans adopted in 1956. The primary aim of the measures introduced in 1967 was to promote the widespread use of contraception, especially the pill, and the training of qualified personnel. Yet from the end of the 1950s, Malaysia also saw the rise of national ideology largely borne out of fear among Malays of becoming a minority deprived of power. The race riots that broke out in 1969 led to a new economic policy aimed at remedying economic inequalities in the country, in particular through a policy of positive discrimination that favoured recruitment of ethnic Malays in the public sector, the private sector and national universities. This was associated with a return of Islamic fundamentalism. From 1982, when ethnic

Malays became a minority in the country, Malaysia's population policy, until then relatively antinatalist, underwent radical change, with the prime minister setting an objective of 70 million ethnic Malays. This target was reasserted in 1984 when it was incorporated into the objectives of the Plan (an unrealistic goal given that Malaysia counted just over 13 million ethnic Malays in 2005). For a time, the state and its official discourse appeared to play a decisive part in the childbearing behaviour of ethnic Malays, whose total fertility rate reached five children per woman in the mid-1980s versus just above two children among couples with Chinese and Indian ethnic backgrounds. Today, these disparities have declined but have not altogether disappeared: the total fertility rate among ethnic Malays currently stands at around 3.5 children per woman, against around 2 children per woman among the Chinese and Indian ethnic groups.

The first birth control initiatives in Thailand were introduced later than in the countries discussed above. Thailand implemented its first population policy in 1970, with a view to encouraging the voluntary use of contraception to reduce population growth. The objective of the 1972-1976 five-year plan was to reduce annual population growth to 2.5% through improved access to services and information related to family planning throughout the country, including rural areas. Abortion and sterilization were liberalized in 1977 and the national production of contraceptives was developed. A range of incentive measures also helped to raise contraceptive prevalence, such as free care at childbirth for women agreeing to undergo immediate sterilization and financial support for child education and agricultural production for couples who agreed to have no more than two children. The aim of developing family planning was repeatedly carried over from one five-year plan to the next, at least until the 1992-1996 plan. The official line in terms of family planning has become more nuanced since the 1997-2001 five-year plan. Now that Thailand's fertility is very low (1.8 children per woman in 2000-2005), the aim is now to adapt the intensity of family planning activities to specific local needs.⁽²⁹⁾

The easing of birth control programmes and the widespread decline of state investment in national family planning policies in Malaysia, Thailand and the Philippines can be interpreted as the first indications of a turnaround in demographic policy-making (Barbieri, 2006). By contrast, in other countries, family planning policies have been initiated only very recently.

Such is the case of Cambodia, Mongolia and Laos, where population policies were only adopted at the end of the 1990s or at the beginning of the 2000s. In 2003, Cambodia introduced a policy aiming to ensure that population growth was compatible with socioeconomic development and to ease demographic pressure on the environment and natural resources. While previously aimed exclusively at birth spacing, family planning measures are designed to allow

(29) Information drawn from the Unescap database: http://www.unescap.org/esid/psis/population/database/poplaws/law_thai/th_title.htm#Family%20Planning

couples to choose the number of children they wish to have through improved access to information, education and public services, with the stated aim of reducing maternal and infant mortality, which remains high in comparison with most countries in the region. The population policy adopted in Mongolia at the beginning of the 2000s is part of a broader programme aimed at fostering economic development, and its objectives and measures are very similar to those of Cambodia.⁽³⁰⁾

Laos was also one of the last countries in the region to implement family planning measures, with the adoption in 1999 of a “National Population and Development Policy”. Its relatively late implementation accounts, at least in part, for the country’s poor levels of performance in terms of contraceptive use (below 30% of women in 2000) and infant mortality – which, at 62 per thousand in 2000–2005, remains one of the highest rates in the region. Conceived as part of a vast programme aimed at improving maternal and child health, the policy has several objectives. Firstly, it is designed to reduce the number of unwanted children, while encouraging couples to limit their number of children to 2–4 and to space births by at least two to three years. Another objective is the fight against poverty, especially among ethnic minorities. Following the examples of Mongolia and Cambodia, the aim is to ensure that population growth is compatible with the country’s socioeconomic context, to improve living standards and to reduce maternal and infant mortality. The policy also aims to improve the status of women and ethnic minorities, in particular through better access to education and health care. Finally, it seeks to encourage a harmonious distribution of the population across the territory with a view to preserving the natural environment and promoting sustainable development. One of its specific targets is to reduce fertility to 3 children per woman and to increase contraceptive prevalence to 60–65% by 2020.⁽³¹⁾

Where such programmes exist, the content and implementation of family planning measures in the countries of East and Southeast Asia are highly diverse. Nevertheless, it is clear that in most cases, the most ambitious and most strongly enforced policies, such as those implemented in China, South Korea, Vietnam and Thailand, have played a decisive part in the fertility decline in these countries, whereas their impact in other countries, such as the Philippines and Indonesia, has been far less decisive.

4. Social and spatial diversification of national reproduction models

In the history of every society, the national fertility transition occurs in several stages. The decline of fertility never begins simultaneously in every region and social group, and never occurs at the same rate. Some groups are

(30) http://www.unescap.org/esid/psis/population/database/poplaws/law_mongolia/mongo2.htm

(31) http://www.unescap.org/esid/psis/population/database/poplaws/law_lao/laopart2.htm#pt1

more open in cultural terms, more directly affected by social and economic modernization, and adapt more rapidly to the effects of social change or of economic crisis. It is these groups which generally take the lead. The first observable trends are therefore a diversification of family strategies, followed by a gradual convergence of behaviours. As elsewhere, the fertility transitions in the region first occurred among urban and educated populations. To illustrate this point, Table 7 shows the variations in fertility by place of residence (urban/rural) and the educational level of women in several countries of the region.

Table 7. Fertility by place of residence (urban/rural) and educational level of mothers in selected countries of the region at different stages of the demographic transition (children per woman)

	Year/source	Place of residence		Mother's level of education		
		Urban	Rural	No education	Primary	Secondary or above
Cambodia	DHS 2000	3.1	4.2	4.5	4.0	2.9
	DHS 2005	2.8	3.5	4.3	3.5	2.6
China	1981 census	1.4	2.9	n.d.	n.d.	n.d.
	2000 census	1.0*	1.4*	2.2**	1.8**	1.1/0.5** and ***
Indonesia	DHS 1987 (1981-1983)	3.7	4.5	4.4	4.3	3.2
	DHS 1991	2.6	3.2	3.3	3.1	2.6
	DHS 2002-2003	2.4	2.7	2.6	2.7	2.5
Philippines	DHS 1993	3.5	4.8	4.9	5.5	3.9/2.8***
	DHS 2003	3.0	4.3	5.3	5.0	3.5/2.7***
Vietnam	DHS 1997	1.8	2.9	4.0	2.8	2.5/1.9***
	DHS 2002	1.4	2.0	2.8	2.1	1.7/1.4***

* Not corrected for under-reporting of births.
 ** Mean number of surviving children of women aged 15-49, data not corrected for under-reporting of births.
 *** The first value corresponds to women who have completed secondary education, the second to women with a university degree.

In some cases, the fertility levels at a national level conceal significant regional disparities. In the countries examined here, there are large differences between urban and rural areas. In every country of the region, fertility is much lower in urban areas, even in Cambodia, which is still in the early stages of the demographic transition, and, to a lesser extent, in Indonesia. However, the differences between urban and rural areas change over time, in particular when shifts of norms and behaviours in the cities eventually spread to rural areas and to other social groups. The largest differences between urban and rural women is seen in the Philippines. In 2003, women living in rural areas still had 1.3 more children on average than women living in urban areas.

Beyond the urban/rural differences in fertility, other kinds of disparity are also observed. For example, in China and Indonesia – the two most populated countries in the region – the fertility transitions did not take place everywhere at the same rate. The heterogeneity of fertility shifts developed primarily in the first stage of the fertility transition, i.e. in the 1970s in China and Indonesia. For example, while the total fertility rate in the Indonesian province of Yogyakarta fell below 3.5 children per woman as early as 1980, it was still above 5.8 children per woman in the Sumatera Utara, Sulawesi Tenggara and Maluku provinces.⁽³²⁾ The total fertility rate in China at the beginning of the 1970s was above 6 children per woman among the Uyghur Muslim minority of Xinjiang and the Hui Muslims of the Ningxia province, but it had already fallen below replacement level in the Shanghai municipality (Peng, 2002). However, since the 1990s, the fertility decline in both China and Indonesia has spread to all provinces, and internal disparities have tended to diminish. At the time of the 1999 census, the fertility of Indonesian women varied within a narrow range, between 2 (particularly in the Jakarta, Yogyakarta and Bali provinces) and 3 children per woman (notably in Sumatera Utara and Nusa Tenggara Timur). Fertility is now so low in the Chinese municipalities of Shanghai and Beijing (0.8 children per woman in 2000) that inter-provincial disparities have tended to re-emerge: the total fertility rate is still 2.5 children per woman in Xinjiang and Jiangxi, and 3 children per woman in the southern province of Guizhou, i.e. three to four times higher than in the Shanghai municipality.⁽³³⁾

Like China and Indonesia, Thailand was marked by significant regional disparities in fertility throughout the transitional phase. The mean number of children per woman in the mid-1980s was already well below replacement level in the capital Bangkok (1.7) compared with 4.1 in the south of the country. These disparities subsequently diminished. Ten years later (1995-1996), the average number of children per woman, which had continued to decline in Bangkok (1.3), had fallen to just 2.9 in the south. Large regional disparities also exist in Malaysia, where fertility remains high (3 children per woman in 2000). In 2000, the mean number of children per woman was 2.2 in Pulau Pinang and 2.3 in the capital Kuala Lumpur, i.e. on average two to three fewer than in Terengganu (4.3) and Kelantan (5.3).⁽³⁴⁾ Differences between ethnic groups were especially pronounced: the crude birth rate in 2004 reached 14.6 per thousand among Malaysians with a Chinese ethnic background, versus 17 per thousand in the Indian ethnic group and 21.8 per thousand among the Malay ethnic group.

(32) Source: *Statistics Indonesia*, at <<http://www.bps.go.id/sector/population/table7.shtml>>

(33) In China, the standard deviation between total fertility rates rose from 0.568 in the 1950s to 1.323 in 1970, and then fell back to 0.460 in the late 1990s (Peng, 2002).

(34) *Department of Statistics, Malaysia*, 2001.

Large geographical disparities are also observed in Cambodia, where the fertility transition only began very recently in many parts of the country. The mean number of children per women varies by a factor of two between the two extremes. In 2005, the province of Phnom Penh, which includes the capital, had the lowest fertility rate in the country (2.5 children per woman), whereas women had twice as many children on average (5.2) in the provinces of Mondol Kiri and Rattanak Kiri. In this respect, the situation of the Philippines is comparable to that of Cambodia, since women living in the region of Mimaropa have nearly twice as many children on average (5.0) as the women who live in the capital (2.8). Regional disparities are even more pronounced in Laos, where the total fertility rate, which had declined to 2.3 children per woman in the capital Vientiane, is above 5 children per woman in more than half of the provinces and even above 6 in the Xaysomboon and Huaphanh provinces.⁽³⁵⁾

Generally speaking, the impact of women's education has tended to develop in the region, as elsewhere in the world. Except for Indonesia, where fertility has declined quite uniformly throughout the country and varies little by women's educational level, the mere fact of gaining access to primary education has a significant impact on behaviour, as illustrated by Cambodia and Vietnam (Table 7). Access to secondary or higher education further increases these differences. In almost every region of these five countries, access to secondary or higher education is highly discriminatory: the fertility rate of highly educated women is on average half that of women with no education. Differences are also marked in China, where fertility reaches 2.2 children per woman on average among women with no education versus less than 1 child per woman among those with higher education.

Clearly, in East and Southeast Asia, as in other parts of the world, the fertility transition can follow a variety of different paths.

5. Human development and child mortality: clear correlations with fertility

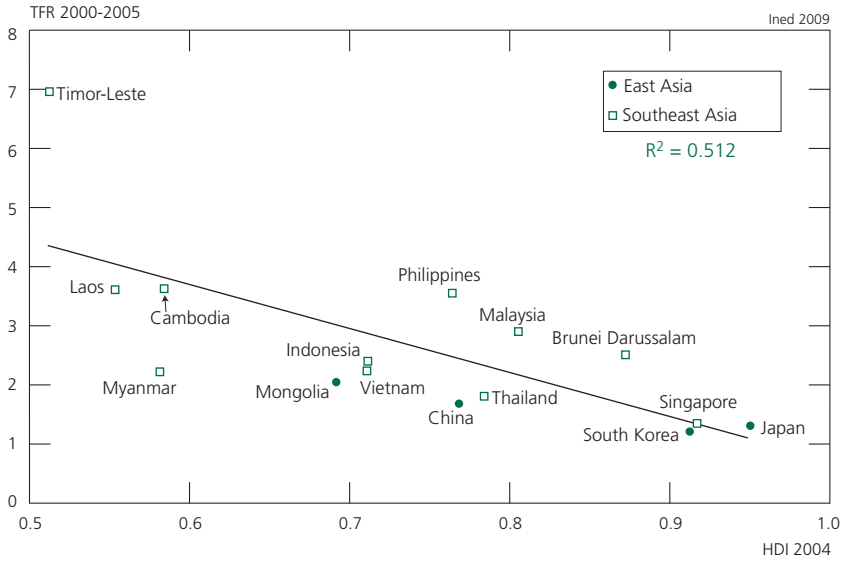
Mirroring the trends occurring on a global scale or in other regions of the world, a close connection between fertility and the human development index (HDI)⁽³⁶⁾ could be observed at the beginning of the 2000s, as well as between fertility and child mortality (Figures 15 and 16).

The correlations are statistically significant ($R^2 = 0.512$ with the HDI and $R^2 = 0.457$ with the infant mortality rate), but the points are highly dispersed. For example, for the same level of human development in 2004, around 0.77,

(35) National Statistics Centre of the Lao PDR; see: http://www.nsc.gov.la/Products/Populationcensus2005/PopulationCensus2005_chapter1.htm

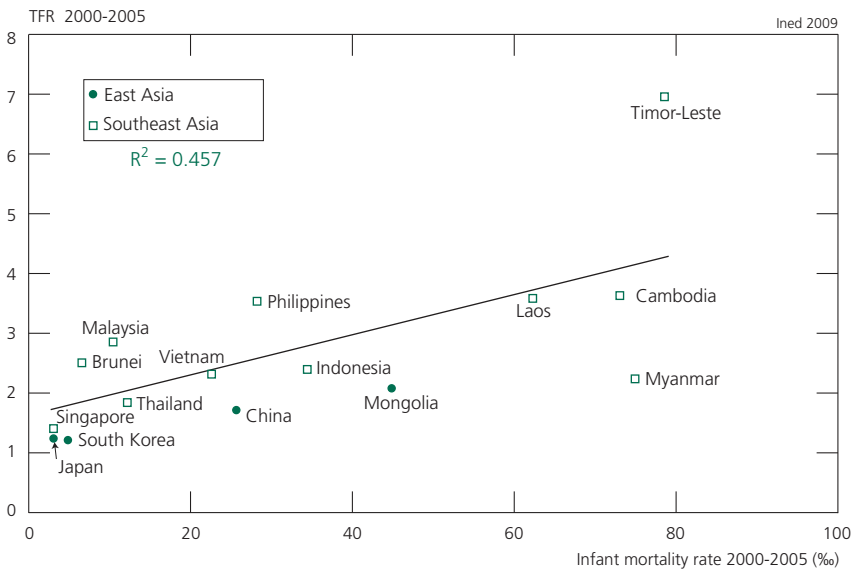
(36) Index developed by the UNDP (United Nations Development Programme) that combines normalized measures of life expectancy at birth, educational attainment, literacy and GDP per capita (see note in Appendix Table A.14).

Figure 15. Relation between total fertility rate and human development index (HDI)



Sources: Mean number of children per woman: United Nations (2006a); Human development index: Appendix Table A.14.

Figure 16. Relation between total fertility rate and infant mortality rate



Source: United Nations (2006a).

the fertility rate is twice as high in some countries as in others, ranging from 1.7 in China to 3.5 in the Philippines in 2000-2005. In Malaysia, where the human development index is only marginally higher than in Thailand (0.81 and 0.78 respectively), women have one child more on average (with total fertility rates of 2.9 and 1.8 respectively). Conversely, for the same fertility rate (around 2.3 children per woman in 2000-2005), the Human Development Index varies from 0.58 in Myanmar to 0.71 in Vietnam. The same observation applies to infant mortality. Again, Malaysia and Thailand have a low level of infant mortality (in the region of 10-11 per thousand), yet they also have markedly different fertility levels. By contrast, though Myanmar has the same level of fertility, its infant mortality rate is more than twice that of Indonesia (74.9 per thousand versus 34.2 per thousand). The non-systematic nature of this relation confirms the specificity of national histories and the wide variety of patterns observed in the fertility transition.

6. An increasing sex-ratio imbalance at birth

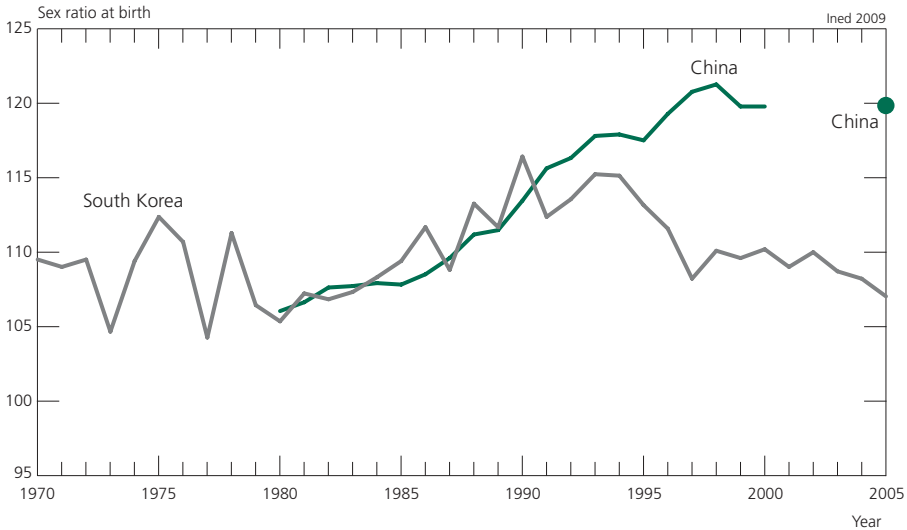
In parallel to the fertility decline since the 1970s, some of the countries in the region have seen a significant increase in the ratio of male to female births. Under normal circumstances, the sex-ratio at birth is usually around 105 boys for 100 girls. Yet in China and South Korea, and more recently in Vietnam, the ratios have tended to depart from this standard reference value. While the case of Vietnam is still too uncertain because of contradictions between the available data sources (Bélanger et al., 2003), the imbalances observed in China and South Korea are by contrast largely substantiated and well documented (Figure 17).

These trends are the result of a continued preference for boys – a feature of traditional culture – in a context of rapid fertility decline. Techniques of prenatal sex determination have also developed since the 1980s, making selective abortion widely accessible. In China, the trend is developing at an alarming rate (China's sex ratio at birth reached 120 boys for 100 girls in 2005). With India, China is the country that discriminates most against girls. In China, the deficit of girls as a result of selective abortion is estimated at between 500,000 and 600,000 on average every year since the early 1990s. This deficit will inevitably affect both the marriage market as early as the 2010s and overall demographic trends in China (Attané, 2006). It is heightened, moreover, by a regular pattern of abnormal excess female mortality before the age of five (Attané, 2005), as detailed below.

Note, however, that the sex-ratio at birth in South Korea has tended to return gradually to levels that are in line with biological norms since the mid-1990s. This suggests that a more favourable attitude towards girls is developing among the younger birth cohorts in a context of extremely low fertility.⁽³⁷⁾

(37) In China, as in South Korea, sex selection tends to affect second or higher births.

Figure 17. Changes in sex ratio at birth in China (1980-2005) and South Korea (1970-2000)



Sources: South Korea: civil registration data. China: 1980-1999: reconstitutions based on data drawn from 1990 and 2000 censuses; 2005: 2005 intercensal survey.

IX. Proximate determinants of fertility

The fertility of a population at a given moment in time depends on norms and practices in terms of entry into union, breastfeeding, postpartum sexual abstinence, abortion and, of course, contraception (whether for birth spacing or stopping). Countries in the region tend to be poorly documented on these issues. Only the DHS surveys provide recent data for some countries (Cambodia, Indonesia, the Philippines and Vietnam). We shall therefore provide only a brief overview of breastfeeding and postpartum sexual abstinence, about which little is known, and focus mainly on contraception and abortion, for which more complete data are available (Appendix Table A.7).

1. More widely spaced births overall

According to the sparse sources of recent and comparable data available to us, there have been no major changes in age at first birth, with a median age that has remained generally stable (Appendix Table A.7). Note, however, that among the countries of the region for which information is available, Indonesia still records some of the highest levels of early fertility, with a median female age at first childbirth of 21 years in 2003, i.e. over two years less than in the Philippines (23.2), where fertility is nonetheless high. In other words, age at first birth does not appear to be a major determinant of the overall fertility level.

By contrast, the interval between births has considerably increased, in parallel with the decline of fertility. Calculated for all women aged 15-49, the median interval between the first two births rose by 16 months in Indonesia between 1991 and 2002-2003 and by nearly ten months in Vietnam between 1997 and 2002. The increase was much smaller (roughly 2.5 months) in the Philippines and Cambodia, where fertility has declined at a slower rate.

Sexual abstinence and breastfeeding are two of the variables that may affect the duration of postpartum infertility and hence the interval between births. However, the median duration of postpartum sexual abstinence is relatively short in the countries studied here (around 3 months) and has not undergone any substantial change. The same applies to postpartum amenorrhoea.

Maternal breastfeeding is still commonly practised in all four countries and is generally long, with current mean durations ranging from 14 to 22 months. Overall, there have been no notable changes in the past fifteen years.

2. Rapid though variable progress of contraception

Contraceptive use has increased almost throughout the region in the course of the last decades and is now widespread, with at least 60% of women in most countries now using contraception. Contraceptive prevalence by country (all methods on the one hand, modern methods on the other) is detailed in Appendix Table A.8.

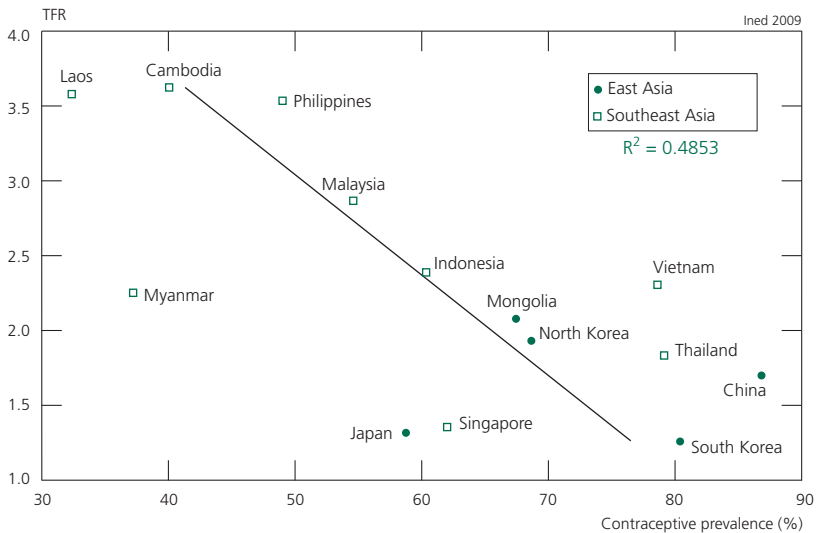
Yet levels and trends vary widely across the region. Four countries present particularly high contraceptive prevalence. In China, South Korea, Thailand and Vietnam, over 75% of married women of reproductive age currently use contraception, with levels that are similar to, and in some cases higher than, those of the developed countries of western and northern Europe (78% in Denmark; 75% in France; 82% in the United Kingdom). While contraceptive prevalence in these countries is close to the levels observed in a small number of Latin American countries (Brazil, Costa Rica, Colombia, Cuba), it is much higher than in most other countries of the developing world, including those countries where prevalence is highest (in the case of Africa: 57% in Algeria in 2002, 63% in Morocco in 2003;⁽³⁸⁾ in the case of South Asia: 57% in Bangladesh in 2000, 56% in India in 2005-06). With prevalence varying between 87% and 90% according to different sources, China has the highest level of contraceptive use in the world. The situations in these four countries are undoubtedly the result of family planning policies introduced in the 1960s and 1970s aimed primarily at promoting contraceptive use, as indicated above.

By contrast, three countries of the region – Laos, Myanmar and Cambodia – have the lowest contraceptive prevalence in Asia, with just 30% to 40% of married women currently using contraception.

(38) Note that Iran, where 73% of women use contraception, is an exception in the Middle East and Arab World region (Tabutin and Schoumaker, 2005).

Except for the Philippines, Vietnam, South Korea and Cambodia, the use of traditional contraceptive methods is now very limited, with just 7% of married women currently using traditional contraceptive methods, while the use of modern methods has increased significantly everywhere in the course of the last decades. Progress is variable from one country to the next, however. Figure 18 illustrates the variability of contraceptive use in the region and its connection with fertility in the early 2000s.

Figure 18. Total fertility rates and contraceptive prevalence in the countries of the region in the early 2000s (all contraceptive methods)



Sources: for the total fertility rate: United Nations (2006a);
for contraceptive prevalence: Appendix Table A.8.

The prevalence of all commonly used contraceptive methods varies significantly across the region. The pill is the leading method in just a few countries: in Cambodia and the Philippines it is used by around 13% of women of childbearing age in a union, and in Thailand by 27%. The condom is rarely used by married couples, with the notable exceptions of Japan and Singapore, where it is used by 44% and 22% respectively. In China, South Korea and, to a lesser extent, Thailand, sterilization (primarily female sterilization) is by far the most widely used method of contraception, since respectively 40%, 37% and 25% of married couples resort to it in these three countries. Finally, the intra-uterine contraceptive device (IUD) is generally unpopular (in all countries it is used by less than 7% of couples). China and Vietnam are the only exceptions, with at least one married woman out of three using an IUD. In Indonesia and Thailand, contraceptive injections are widely used, with respectively 28% (2003) and 22% (2000) of married women choosing this method. Their

popularity in these countries remains unequalled in the region and rarely so in the rest of the developing world. Across the region, the main traditional methods used by couples are withdrawal and periodic abstinence.

Generally speaking, and in line with what has been observed elsewhere, there is a significant negative correlation between contraceptive use (all methods) and overall fertility (Figure 18), with a coefficient of determination of 0.485. This is particularly clear for the extreme situations and slightly more tenuous in countries situated in an intermediate position. Thus, for a contraceptive prevalence of approximately 60%, fertility ranges from roughly 1.3 children per woman in Singapore and Japan to 2.2 in Indonesia. Conversely, for a total fertility rate in the region of 2.3 to 2.4 children per woman, contraceptive prevalence ranges from just under 80% in Vietnam to around 60% in Indonesia. Japan and Singapore are particular cases, since contraceptive prevalence in both countries is still quite low, despite a very low level of fertility. The lowest-low fertility in these countries is now more attributable to late nuptiality than to induced abortion or contraceptive prevalence (Sato and Iwasawa, 2006).

3. Abortion

The legal status of induced abortion varies significantly across the region. While it is illegal in the Philippines and Laos, abortion can be practised without restriction in Cambodia, North Korea, China, Mongolia, Singapore and Vietnam. Elsewhere, the conditions governing abortion are variable (Table 8). In most cases, however, induced abortion is authorized at least in cases where the pregnancy places the mother's life at risk, as is the case in Brunei Darussalam, Indonesia and Myanmar.

As reliable data sources are rare, the question of induced abortion as an intermediate variable of fertility in the region and in most other regions of the world is a difficult issue to address. Recurrent registration problems make it difficult to produce cross-national comparisons or to interpret trends. Hence, where relevant data are available, they tend to under-estimate the frequency of abortion in the world. Only a small number of cases for which relatively complete annual statistical series are available will be presented here.

In Japan, induced abortion was the main factor behind the fertility decline from the 1950s to the early 1960s, with an abortion rate exceeding 60 per 100 live births between 1954 and 1962 (Figure 19). From the early 1970s, the abortion rate stabilized at between 30% and 40%. The frequency of induced abortion in China increased sharply in the early 1970s (Blayo, 1997), when the third birth control campaign was implemented, rising from 15 abortions per 100 live births in 1971 to nearly 70 in 1983.

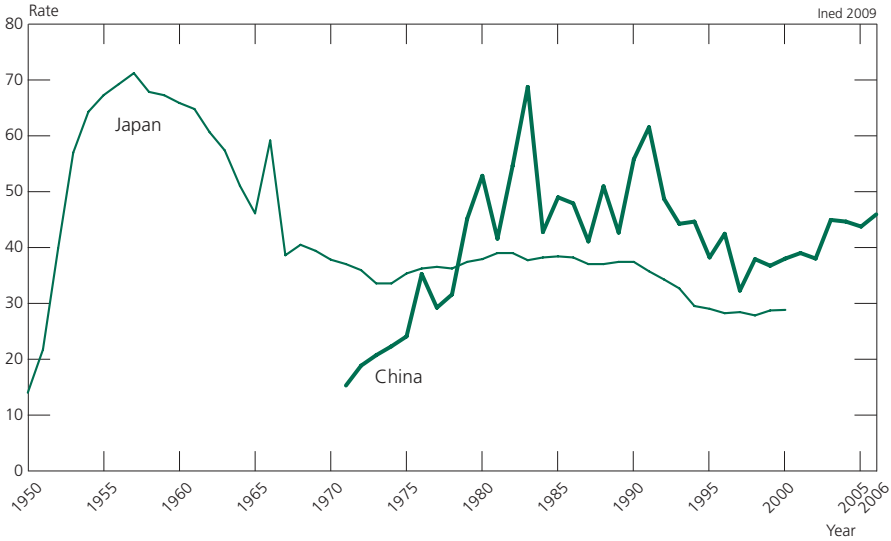
In the countries where the relevant information is available, the number of abortions per thousand women aged 15-44 varies considerably (Table 9).

Table 8. Situations where abortion is legally authorized in each country, circa 2007.

Country	1	2	3	4	5	6	7	8	9	10
East Asia										
China*	X	X	X	X	X	X	X	X	X	X
Japan	X	X	X	X				X		
Mongolia	X	X	X	X	X	X	X	X	X	X
North Korea	X	X	X	X	X	X	X	X	X	X
South Korea	X	X				X	X	X		
Southeast Asia										
Brunei	X									
Cambodia	X	X	X	X	X	X	X	X	X	X
Indonesia	X									
Laos										
Malaysia	X	X	X							
Myanmar	X									
Philippines										
Singapore	X	X	X	X	X	X	X	X	X	X
Thailand	X	X	X			X			X	
Timor-Leste**										
Vietnam	X	X	X	X	X	X	X	X	X	X
1. To save the pregnant woman's life 2. To preserve the woman's physical health 3. To preserve the woman's mental health 4. Socioeconomic grounds 5. Without restriction as to reason 6. In cases of rape 7. In cases of incest 8. Spousal authorization required 9. In cases of foetal impairment 10. Parental authorization required for minors * Sex-selective abortion prohibited ** Information not available Source: <i>The World's Abortion Laws</i> , Center for Reproductive Rights, at http://www.reproductiverights.org/pub_fac_abortion_laws.html										

Vietnam is the country where induced abortion is not only the most frequent (83 per thousand in 1996) but also where abortion has increased most sharply since the mid-1970s. By contrast, abortion declined substantially in Japan, Singapore and South Korea between 1975 and 1996. China constitutes an exception, in that abortion can be practiced without restriction, at whatever gestational age, and is also sometimes coercively imposed on pregnant women regardless of the quotas defined by the official birth control policy. However, according to the most recent available data, induced abortion is now three times less frequent in China than in Vietnam, for example.

Figure 19. Rate of induced abortions for 100 live births in Japan, 1950-2000 and in China, 1971-2006



Sources: For Japan: Japan National Institute of Population and Social Security Research, at: <http://www.ipss.go.jp/index-e.html>; for China: China Training Center, Reproductive Health and Family Care, 2007; at: www.ctc-health.org.cn

Table 9. Number of legal induced abortions per thousand women aged 15-44

	1975	1980	1986	1991	1996
China	27.5	44.8	44.4	40.0	26.1 (1995)
Japan	25.2	22.5	19.8	16.1	13.4 (1995)
Singapore	23.5	28.4	32.9	21.0	15.9
South Korea	63.9	64.0	50.2 (1984)	36.5 (1990)	19.6
Vietnam	5.0	15.0	24.8	71.1	83.3

Source: Henshaw et al., 1999.

X. Substantial progress in overall mortality

After a slow start relative to other regions, the mortality transition in Southeast Asia, and especially in East Asia, made remarkable progress from the 1960s onwards. By the 1980s, thanks to a rapid increase in life expectancy at birth, mortality in the region was among the lowest in the developing world. Caution is needed, however, since in most of the countries the available data, particularly for earlier periods, are not totally reliable. Because civil registration is incomplete or because data remain unprocessed and unpublished, few countries possess complete and detailed information on deaths by age, sex and cause, and by characteristics such as place of residence and social group.

Consequently, for a historical perspective we have to rely on the estimates produced by the UN Population Division, which provide the only comparable figures available for all the countries.⁽³⁹⁾ More specific topics, such as geographical disparities and gender inequalities will be illustrated by reference to the countries for which the fullest data are available. This section will conclude with an examination of progress in maternal mortality and the fight against AIDS.

1. Large disparities within the region

Starting from just over 40 years in the early 1950s, life expectancy (or mean length of life) in the region as a whole currently stands at 72 years,⁽⁴⁰⁾ thanks to average annual life expectancy gains of slightly more than six months between 1950-1955 and 2000-2005 (Appendix Table A.9, Table 10). Progress was particularly rapid in the 1960s, when average annual gains approached 18 months (versus only three months in most western countries, including France). Progress continued over the next thirty years, but at a much slower pace. Leaving aside Japan, where the situation at the beginning of the period was completely different from that of other countries of the region, life expectancy at birth in East and Southeast Asia in 1950-1955 was only slightly

Table 10. – Change in life expectancy since 1950, maternal mortality and HIV prevalence circa 2000 by sub-region

Sub-region	Life expectancy (in years)				Maternal mortality rate in 2005 ^(a)	HIV prevalence rate (%) at end of 2003 ^(b)
	1950-1955	1970-1975	1990-1995	2000-2005		
East Asia	42.9	64.2	69.9	73.2	50	0.1
Southeast Asia	40.9	52.3	64.2	68.5	300	0.6
Whole region	42.5	61.5	68.5	72.0	120	0.2
South Asia ^(c)	38.4	50.5	60.0	62.7	490	0.8
Arab world and Middle East ^(c)	43.4	54.6	65.7	69.5	102	~0.1
Latin America and Caribbean ^(c)	51.4	60.9	68.6	72.0	170	0.6
Sub-Saharan Africa ^(c)	37.5	45.4	48.8	47.6	870	7.5

^(a) Number of maternal deaths per 100,000 live births. Source: WHO (2007).
^(b) Men and women at ages 15-49. The HIV prevalence rate measures the proportion of HIV-infected individuals, whether or not they are suffering from AIDS.
^(c) Region defined as in Tabutin and Schoumaker, 2004 and 2005; Guzman et al., 2006; Véron, 2008.
Source: Appendix Tables A.9 and A.10. Sub-regional averages are averages of national results weighted by mid-period populations.

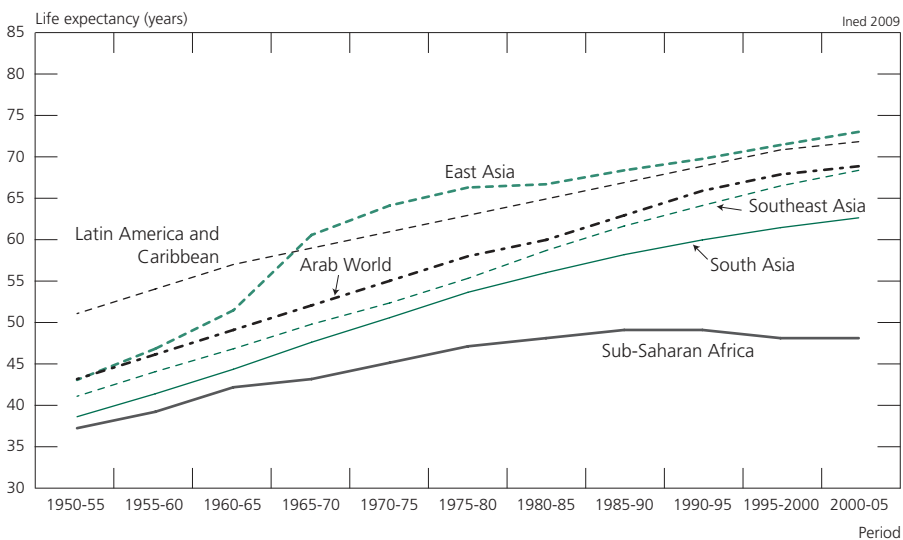
(39) Many of these are only estimates, in which life expectancy is usually based on child mortality – for which data are generally most comprehensive – and extrapolated to other ages using model life tables.

(40) All regional and sub-regional averages given here are weighted by the population of each country.

higher than that of South Asia or even sub-Saharan Africa. It was much lower than that of the Arab world and the Middle East and that of Latin American and the Caribbean especially. Thanks to rapid progress over the last forty years, life expectancy at birth in the region today (72 years) is now three years longer than in the Arab world and the Middle East, almost ten years longer than in South Asia and 25 years longer than in sub-Saharan Africa. Regional averages, however, are heavily influenced by China whose population represents 63% of the total (and 86% of that of East Asia) and they mask extremely wide disparities within and between regions in both the level and pace of change.

Mean length of life in Southeast Asia has followed a steady upward path over the entire period, rising from 41 to 69 years between 1950-1955 and 2000-2005, equivalent to an average annual gain of 0.6 years (Figure 20). In East Asia, the course of change has proceeded much more erratically, mainly because of China which, as noted above, alone accounts for 86% of the sub-region's population. Life expectancy at birth initially increased at a rate similar to that observed in the other regions of the developing world – an average annual gain of 0.9 years between 1950-1955 and 1960-1965 – with the exception of sub-Saharan Africa, already lagging behind. The increase accelerated suddenly in the 1960s, when nearly two years of life expectancy were gained for each calendar year, but thereafter slowed sharply. Life expectancy did not lengthen at all in the 1980s, and while the improvement resumed after 1990-1995 its pace was relatively slow, with an annual average gain of 0.3 years over the last

Figure 20. Life expectancy at birth between 1950-1955 and 2000-2005, by sub-region (years)

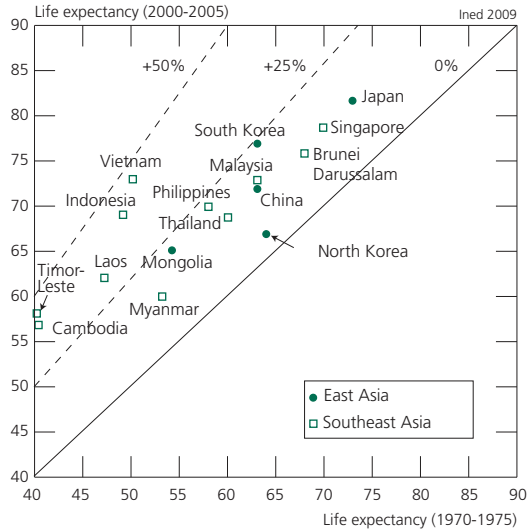


Source: United Nations (2006a).

decade. The trend in life expectancy at birth in East Asia is closely linked to that in China, where the population's health status has, on the whole, stagnated since the mid-1980s following the introduction of reforms to privatize the health care system.

As in the health development of the other world regions, the speed of improvement in life expectancy, generally rapid, has varied between countries, though not all started out from the same position of course.⁽⁴¹⁾ The geographical inequalities were particularly marked in the 1950s. Life expectancy at birth was a mere 30 years in Timor-Leste and barely above 35 years in Myanmar and Indonesia; it was around 40 years in China, Mongolia, Cambodia, Laos, and Vietnam, and between 45 and 50 years in Malaysia, the Philippines, North and South Korea, and Thailand, while it was already way ahead, at over 60 years, in Singapore, Brunei Darussalam and, above all, Japan where it stood at the record level of 63.9 years. Figure 21 illustrates the life expectancy change in the sixteen countries between 1970-1975 and 2000-2005, the period in which the largest progress differentials were observed between countries. If UN data are to be believed, very substantial progress was achieved in four Southeast Asian countries (Indonesia, Cambodia, Timor-Leste and Vietnam), with a 40-45% increase in mean length of life over 30 years. Progress was substantially

Figure 21. Life expectancy between 1970-1975 and 2000-2005 in the 16 countries



Note: The diagonal lines correspond to the percentage increase between 1970-1975 and 2000-2005.
Source: United Nations (2006a).

(41) The situations in sub-Saharan Africa, the Arab World and the Middle East, Latin American and the Caribbean, and, most recently, in South Asia, are presented in four other *Population* chronicles (Tabutin and Schoumaker, 2004 and 2005; Guzman et al., 2006; and Véron, 2008).

slower in East Asia, with an increase of less than 15% in China and Japan and close to zero in North Korea. Wide geographical variations in life expectancy at birth persist today between such countries as Cambodia (57 years), Timor-Leste (58 years), Myanmar (60 years) and Laos (62 years), and countries like Brunei Darussalam, South Korea, Singapore (around 77-79 years) and, above all, Japan, the world record holder, with life expectancy of 82 years.

2. The epidemiological transitions behind these mortality reductions

Although there are not sufficient data for most countries in the region to provide a full illustration here, it is quite clear, as the historically early example of Japan suggests, that this transition from life expectancies of around 40 years in 1970 to over 70 years today corresponds to a fundamental transformation in morbidity and cause-of-death patterns and in the age pattern of mortality. The infectious and parasitic diseases that used to dominate, notably among children, have gradually been displaced by chronic and degenerative diseases and by accidents, while disease and mortality risks have been pushed back to increasingly older ages. In simplified form, this represents the classic epidemiological transition model.

In East Asia (Zhao and Kinfu, 2005), the more detailed mortality data that became available for several countries of the region from the mid-1960s show that infectious diseases commonly still accounted for around one-fifth of total mortality (below 10% in Japan) at that time. By the turn of the twenty-first century, this proportion had been brought down to an extremely modest level (around 2%), while cancer and cardiovascular diseases accounted for 60% of all deaths in Japan and Hong Kong and 50% in South Korea. A similar change in the pattern of cause-specific mortality is observed for China, where a third or more of deaths in the late 1950s were attributable to infectious diseases, including respiratory disease (notably tuberculosis), but where more than two-thirds are currently due to chronic degenerative illnesses. One recent study has shown that just three causes – heart disease, cancer, and cerebrovascular diseases – are responsible, in roughly equal proportions, for more than 65% of adult deaths (at age 40 and over), whereas all infectious diseases (including pneumonia and influenza) currently account for a mere 6% (Jiang et al., 2005).

3. Mortality differentials appear to favour women

Mortality decline across the world is invariably accompanied by a change in sex differentials. A situation of broadly equal male and female life spans, gradually gives way to one in which women have a clear advantage over men, albeit varying in size between cultures and regions.⁽⁴²⁾ Excess female mortality,

(42) See Tabutin (1978) for a historical survey of this change in Europe.

common at younger ages (we will return to this point) and in the childbearing years, gradually diminishes and eventually disappears altogether.⁽⁴³⁾

The UN data on life expectancy by sex show a mortality advantage for women in all the countries of East and Southeast Asia (United Nations, 2006a). The female/male ratio of life expectancy is well over 100 in every case, ranging from 103 in Timor-Leste (and 105 in China, Vietnam, and Singapore) to 114 in Thailand (111 in Myanmar, 110 in Mongolia and South Korea). It is reasonable to ask whether economic growth and changes in personal behaviour (smoking, car driving, eating habits, sedentary living, for example) will increase the difference in favour of women, as was the case until recently in the developed countries. Measuring changes in gender differences using the available data series presents difficulties, however, since in a large majority of countries the sex differentials observed owe as much – if not more – to the models from which the UN estimates are derived as they do to actual conditions. In the past, especially, lower female mortality may have been an artefact resulting from differential under-registration of deaths, a common problem in developing countries.

4. Striking progress in maternal mortality

In 2005, the sixteen countries of the region totalled some 45,000 maternal deaths, representing 8% of total world maternal mortality (for 32% of the world population).⁽⁴⁴⁾ In this as in other regions, however, national estimates of maternal mortality – defined by WHO as the death of women while pregnant, during delivery or within 42 days of childbirth – must be treated with great caution. Cause-of-death statistics are lacking for most of the countries in the study, so most of the figures are indirect estimates based on a variety of definitions and methods.⁽⁴⁵⁾ For this reason, the estimates must be considered simply as orders of magnitude.⁽⁴⁶⁾ The country data are given in Appendix Table A.10, and the sub-regional estimates in Table 10.

The maternal mortality rate in East and Southeast Asia is 1 death per 800 births. This puts the region in a much better position than sub-Saharan Africa (1 death per 110 births) and South Asia (1 death per 200 births), and it

(43) Here we do not explore the possible explanations for these sex differences and patterns of change (see in particular Waldron, 1998; Vallin, 2002). Note simply that women are born with a genetic advantage over men which in theory gives them a longer life expectancy, but that this advantage can be nullified by discriminatory behaviour in food allocation, healthcare, etc., or by the risks associated with childbearing. Instead of the expected (or biological) excess male mortality, the effect may be what we term “socially” induced female excess mortality at certain ages. The intensity and age distribution of this excess mortality determines the differences in life expectancy between men and women.

(44) Calculated from country data estimated by WHO (2007).

(45) For a clear and detailed description of the methods used, see the WHO report (2007).

(46) To account for this high degree of uncertainty WHO (2007) presents each country estimate as a wide range, whose central value is used here.

is now slightly ahead of North Africa and West Asia (1 death for 630 births) and even, albeit by only a narrow margin, Latin America and the Caribbean (1 death for 770 births). The substantial progress observed in the recent period results from the spectacular improvement in antenatal care and delivery conditions (see below). Between 1990 and 2005, the maternal mortality rate fell by nearly 50% in East Asia and by over 30% in Southeast Asia, which is a faster rate of decline than in any other world region, including the most developed ones (WHO, 2007). Indeed, East Asia is the only world region that can currently claim to be on target to meet the 75% reduction in maternal mortality set for 2015 under the UN Millennium Development Goals in 1990. Compared with the situation in the industrialized countries (1 death per 10,000 births), however, maternal mortality remains a leading public health issue in East and Southeast Asia, and the pursuit of progress in this field remains a priority. Better antenatal care and safer delivery conditions improve survival for infants and mothers alike.

As is the case in almost all regions, large disparities are observed between countries and between sub-regions. The maternal mortality rate in Southeast Asia (1 death per 330 births) is six times higher than in East Asia (1 death per 2,000 births), and the latter has a large lead over all regions in the developing world. As might be expected, the most industrialized countries of the region are those where maternal mortality is lowest. One maternal death occurs for over 15,000 births in Japan, for around 8,000 in Brunei-Darussalam, and for 7,000 in Singapore and South Korea. Next down the list come China, Malaysia and Mongolia, with around 1 death per 2,000 births, followed at a distance by Thailand, with 1 death per thousand births, and Vietnam, 1 per 770. The lowest-ranking countries in the region are the Philippines (1 per 440), North Korea (1 per 270), Myanmar and Timor-Leste (1 per 260), Indonesia (1 per 240), Cambodia (1 per 190), and, last, Laos (1 per 150). These differences are due to disparities in antenatal care and delivery conditions, but also reflect variations in reproductive behaviour, with a higher risk of maternal death for higher parities and shorter birth intervals.

5. Encouraging results in the fight against AIDS

Asia is in an intermediate situation as regards the AIDS epidemic. The prevalence of HIV infection in the region is estimated at 0.2%, which appears low relative to sub-Saharan Africa, where it is estimated at 7.5%. Prevalence is also lower than in Latin America (0.6%) and in South Asia (0.8%), but it is double that of the Arab world and the Middle East (0.1%). More importantly, the population sizes mean that large numbers of individuals are concerned: more than five million adults aged 15-49 are HIV-positive.⁽⁴⁷⁾ Wide variations

(47) All the non-referenced quantitative information given in this section is taken from the most recent UNAIDS/WHO report (2007).

exist, however, between East Asia and Southeast Asia, and between the countries making up these two sub-regions.

The epidemic first emerged in Southeast Asia, with a first reported case in Thailand in 1984, and this sub-region still has the highest HIV-prevalence rate (0.6% versus 0.1% in East Asia). Leaving aside North Korea, for which no estimate is available, the UN Joint Programme on HIV/AIDS (UNAIDS) puts the national prevalence rates at between close to 0 and 2% (Appendix Table A.10), compared with 20% in southern Africa. Prevalence rates are very low in the Southeast Asian countries of Philippines and Brunei Darussalam and in most of East Asia (Japan, Mongolia, and South Korea). They are highest in Cambodia, where the epidemic was first detected in 1991 and where around 130,000 persons are infected. The other countries where prevalence is of particular concern are Thailand, with 550,000 infected individuals, Myanmar, with 340,000, and above all China, with 850,000. Despite the creation of an increasingly dense epidemiological surveillance network in China over the last ten years, a reliable overall estimate remains difficult to establish given the diversity of situations in the country's regions. National prevalence currently stands at around 0.1%. While no geographical zone is exempt, the worst affected provinces are those along the frontiers to the south-east (Guangdong, Guangxi, and Yunnan) and north-west (Xinjiang), and the main urban centres.

Unlike the situation observed in sub-Saharan Africa, where the epidemic very soon spread through the general population and affected men and women equally, in Asia it was for long almost exclusively confined to high risk groups – intravenous drug users and sex workers – and has only recently been passed on to other groups. Women who contract the virus from their husband represent a growing proportion of new infections. At the level of the Asian continent, the proportion of women among HIV-infected individuals climbed steadily from 25% in 2001 to nearly 30% in 2007.

Across Southeast Asia, however, governments have taken prompt and sustained action to combat the epidemic. From the 1980s, the health authorities in Thailand, the worst affected country at the time, made the fight against HIV a priority (UNDP, 2004). Initiatives include programmes to curb the epidemic among drug abusers by preventing needle sharing, strict health checks for sex workers, action to encourage and facilitate condom use and systematic health care for HIV-infected pregnant women. Measures designed to increase access to retroviral treatment – the most effective means of delaying the onset of AIDS among HIV-positive individuals – are currently at the forefront of the national programme to combat the disease. Thus, from 2003 to 2005, the proportion of people receiving this type of treatment increased four-fold – from 16% to 59% – in the space of just a few years.⁽⁴⁸⁾ The result of these efforts has been a remarkable decline in HIV-prevalence rates both among high-risk groups

(48) UNAIDS WHO Global HIV/AIDS Online Database, <http://www.who.int/GlobalAtlas/predefinedReports/EFS2006/index.asp>, consulted 15 February 2008.

and in the general population. Among sex workers, the rate fell from 20% in the mid-1990s to below 6% in 2004, while among the pregnant women tested in the epidemiological surveillance programmes it fell from its maximum of 2.5% in the second half of the 1990s to just 1% in 2004.⁽⁴⁹⁾ A reduction in risk behaviours seems harder to achieve among drug users: with a prevalence rate of between 30% and 50%, depending on the estimation method used, they remain extremely vulnerable. Supported by international organizations, the combat against HIV/AIDS has also been effectively managed in Cambodia, where its prevalence now seems to be declining. Although the quality of estimates is harder to evaluate, the epidemic also appears to have been contained in Myanmar.

Nonetheless, the projections made for these three countries by the United States Agency for International Development (2004), show that notwithstanding the current favourable trend, the cost in terms of lost years of life expectancy is still high and will remain so in the decades ahead. For instance, life expectancy in Myanmar in 2010 will be 4.5 years shorter than it would have been without the epidemic. Similarly, the crude death rate will be 12% higher in Thailand and 26% higher in southern Cambodia because of the disease.

The epidemiological situation is now a cause for concern in countries previously little affected, most notably Vietnam and Indonesia, where the number of infected persons has risen sharply. In Vietnam their number doubled from 120,000 to 260,000 between 2001 and 2003. In Indonesia national prevalence is still very low (0.1%) but the epidemic is spreading quickly among the high-risk populations, with infection levels of over 40% among injecting drug users in the main urban centres. So although the situation is evolving in a generally favourable direction in the countries first affected by the epidemic, it is still too early to claim that the fight against HIV/AIDS has been won in this world region.

XI. Child mortality and health

In this region, as elsewhere in the world, children under five years of age have been the main beneficiaries of the health transition. Enormous progress has been made in reducing infant and child mortality over the last fifty years. As on other continents, however, wide disparities persist between countries, between social groups within countries, and between the sexes (with excess female child mortality a continuing problem in China).

As was the case for fertility and life expectancy, the data on country-level trends in infant mortality since 1950 are drawn from UN estimates (Appendix

(49) UNAIDS WHO Global HIV/AIDS Online Database, <http://www.who.int/GlobalAtlas/predefinedReports/EFS2006/index.asp>, consulted 15 February 2008.

Table A.9).⁽⁵⁰⁾ The other data on under-five mortality and its components, delivery conditions, antenatal care, vaccination coverage and malnutrition levels, come from the latest surveys in each of the countries for which there is at least one information source. We made particular use of the databases published by UNICEF (notably for health indicators other than mortality) and by the Institute for Health Metrics and Evaluation,⁽⁵¹⁾ whose researchers have assembled all available information sources in each country to produce reliable estimates of under-five mortality and its components (neonatal, post-neonatal, and child mortality) and to supply confidence intervals for each of these indicators.

1. Spectacular progress since the 1950s

Infant mortality in the 1950s was still uniformly high in the developing regions, with little variation between them (Table 11). Apart from Latin America, already well ahead in this respect with a rate below 130 per thousand, infant mortality ranged from 170 per thousand in South Asia to 195 per thousand in the Arab world and the Middle East. With a rate of about 180 per thousand in the region as a whole, East and Southeast Asia was in an intermediate position.

Table 11. – Infant mortality since the 1950s by sub-region

Sub-region	Infant mortality rate (‰)				Change (%)		
	1950-1955	1970-1975	1990-1995	2000-2005	1950-55 to 1970-75	1970-75 to 1990-95	1990-95 to 2000-05
East Asia	181	56	28	24	-69	-50	-14
Southeast Asia	169	105	51	33	-38	-52	-35
Whole region	179	67	34	27	-62	-50	-22
South Asia ^(a)	170	122	79	65	-29	-35	-18
Arab world and Middle East ^(a)	195	123	54	37	-37	-56	-31
Latin America and Caribbean ^(a)	126	81	38	25	-36	-53	-33
Sub-Saharan Africa ^(a)	177	133	114	106	-25	-15	-7

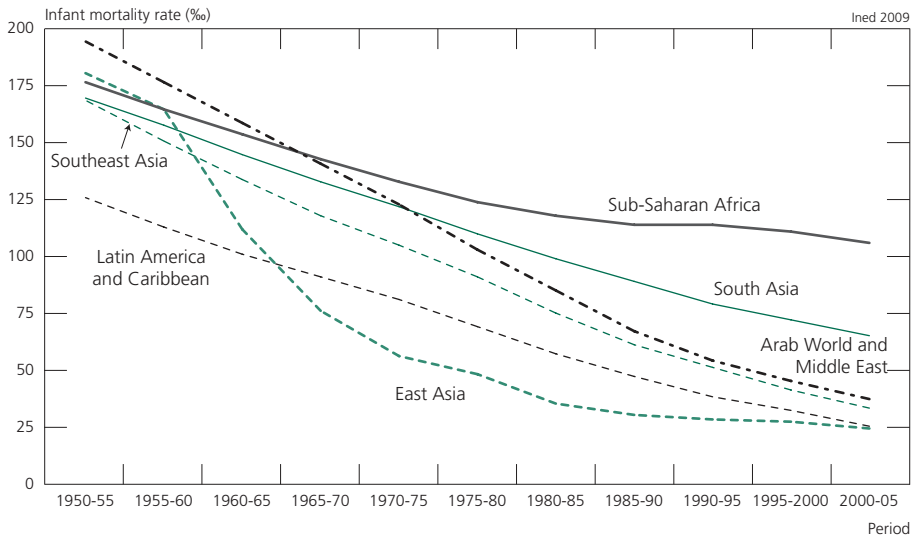
^(a) As defined in Tabutin and Schoumaker, 2004 and 2005; Guzman et al., 2006; Véron, 2008.
Source: United Nations (2006a). Sub-regional averages are averages of national results weighted by the mid-period populations.

(50) The data for earlier periods (the 1950s and 1960s in particular) must be treated with caution. Under-five mortality levels are better known for the recent period (1990s and subsequent years), thanks to more widespread information sources (improved civil registration systems, censuses, and surveys), although under-estimation, whose scale is hard to assess, clearly remains a problem in many countries of the region.

(51) <http://www.healthmetricsandevaluation.org>

The situation evolved rapidly thereafter, though the pace of change varied (Figure 22). Infant mortality in East Asia fell sharply from the 1960s, then levelled off at about 40 per thousand after 1980, since when it has declined more slowly. The downward trend in Southeast Asia was steadier but slightly slower. Fifty years on, the region as a whole is in a much better position than almost any other developing region. Infant mortality is currently under 30 per thousand, a level comparable with that of Latin America and the Caribbean, slightly below that of the Arab world and the Middle East, and well below that achieved in South Asia and in sub-Saharan Africa (Table 11). Overall, the infant mortality rate fell very rapidly in the 1950s and 1960s, declining by more than 60% over the period; the pace of improvement slowed somewhat in the following period (50% from 1970-1975 to 1990-1995) and this slowdown appears to be continuing at present.

Figure 22. Infant mortality by sub-region, between 1950-1955 and 2000-2005

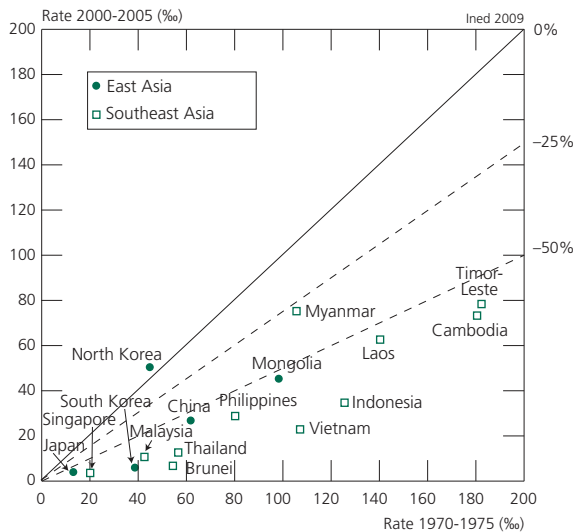


Source: United Nations (2006a)

These overall changes conceal wide diversity in progress and in mortality levels by country, as illustrated by Figure 23 which compares national infant mortality in 1970-1975 and in 2000-2005. Except in North Korea, where no progress was recorded over this thirty-year period (thereby incidentally raising suspicions about the relatively low level claimed for the country at the start of the period) and Myanmar, where a 25% decrease was nonetheless recorded, infant mortality was at least halved in all the countries of the region between the 1970s and 2000s. This improvement was unrelated to the initial mortality level or the sub-region (East Asia or Southeast Asia), since it was observed in Cambodia and Timor-Leste where infant mortality was highest in 1970-75, at over 180 per

thousand, compared with 80 per thousand at present, but equally in Singapore and Japan where the levels at that time were lowest – 19 per thousand and 12 per thousand, respectively, versus 3 per thousand today. In relative terms, therefore, the already large differences between countries at the start of the period have widened over time. It is noteworthy that all the countries where infant mortality is highest and where progress has been slowest have been marked by recent political crises or have authoritarian political regimes (North Korea, Myanmar, Laos, Cambodia and Timor-Leste). These are also the poorest countries, but although the role of economic and social development is undeniable, that of political history cannot be discounted, even if its effects are hard to quantify.

Figure 23. Infant mortality rates between 1970-1975 and 2000-2005 in the sixteen countries of the region



Note: The diagonal lines correspond to the percentage decline between 1970-1975 and 2000-2005.

2. Marked changes in under-five mortality trends

In historical mortality transitions, progress in overall mortality does not benefit all ages equally. The same is true for under-five mortality, which by convention is broken down into neonatal mortality (age 0-1 month), post-neonatal mortality (age 1-12 months), and child mortality (age 1-5 years). We calculated the values of these three indicators for each of the two sub-regions considered, using the country-specific mortality rates supplied by the Institute for Health Metrics and Evaluation, weighted by the annual number of births in each country of the sub-regions, obtained from UN data (UN, 2006a). Because data series of sufficient length were not always available, a number of countries had to be excluded from the calculations. For the purpose of this analysis, East Asia comprises China, Japan, and South Korea,

and Southeast Asia comprises Indonesia, Malaysia, Myanmar, the Philippines, Singapore, and Thailand.⁽⁵²⁾ The results of our calculations are illustrated in Figures 24 and 25.⁽⁵³⁾

Figure 24. Mortality at ages 0-1 month, 0-1 year, and 1-5 years in East Asia, 1970-2000

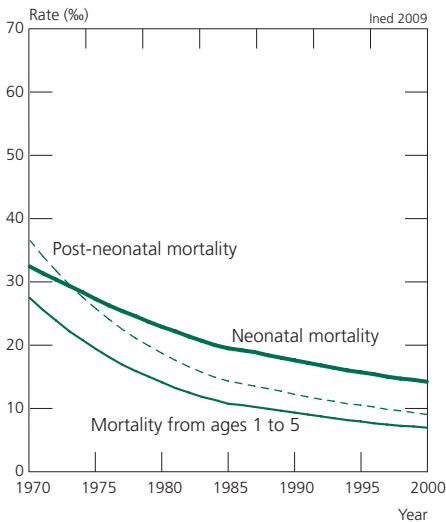
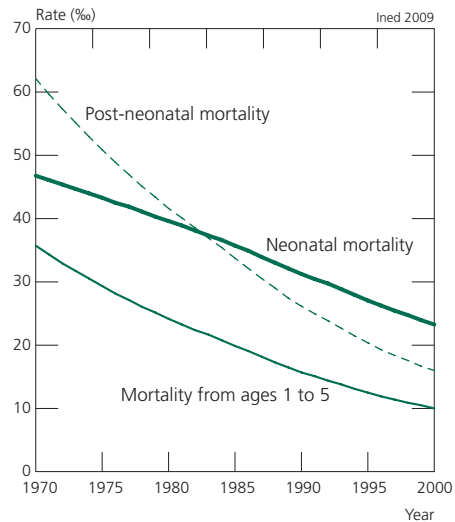


Figure 25. Mortality at ages 0-1 month, 0-1 year, and 1-5 years in Southeast Asia, 1970-2000



Source: Database of the Institute for Health Metrics and Evaluation, <http://www.healthmetricsandevaluation.org>

The three indicators considered have fallen in both sub-regions but the pace and timing of decrease has varied. The historical change in under-five mortality is broadly in line with the classic pattern. Post-neonatal mortality and mortality at ages 1-5 are falling faster than neonatal mortality as a result of improved control (preventive and curative) of infectious and parasitic diseases. Diseases in this category can be combated effectively using simple and inexpensive methods, such as vaccination, oral rehydration, micronutrient supplements, and insecticide-impregnated mosquito nets. Reducing neonatal mortality, by contrast, calls for more costly and technically advanced medical care. Mortality risks in the first days of life depend primarily on the level of

(52) Calculations made for all countries of the region for the periods when complete data are available do not greatly modify the results for either mortality levels or trends. This is because the excluded countries are either small in size (and so make little difference to calculation of regional-level indicators) such as Timor-Leste, or are countries for which the indicators are close to the regional average, like Vietnam.

(53) The smoothness of the curves is deceptive. It is due to the method used by the Institute for Health Metrics and Evaluation to estimate the indicators, based on the rates calculated directly or indirectly for each country (depending on data availability) and smoothed at different points in time.

antenatal care and above all on delivery conditions. Like in other regions of the developing world, neonatal mortality is the slowest to fall in East Asia and Southeast Asia. The reduction is far from negligible, approaching 55% between 1970 and 2000 for the regional grouping as a whole, but is still below that of post-neonatal and child mortality, which both fell by close to 75%.

Concerning the contrasts within the regional grouping, the largest difference between East Asia and Southeast Asia is in post-neonatal mortality. The post-neonatal mortality rate in Southeast Asia was 70-80% higher at both the start and end of the period, and as much as 2.4 times higher in the early 1980s, due to the faster mortality decline in East Asia in the 1970s. Greater progress was also made in combating neonatal mortality in East Asia, notably during the 1970s. The rate fell twice as fast as in Southeast Asia – by 30% versus 15% – between 1970 and 1980. Lower mortality rates were already characteristic of East Asia in the early 1970s, so this faster fall widened the difference in neonatal mortality between the two regions during the 1980s. Neonatal mortality in Southeast Asia was already 40% above that in East Asia in 1970, and by the mid-1980s it was twice as high. However, because mortality decline slowed at all ages in the next period (1980-2000) in East Asia but continued on its steady downward course in Southeast Asia, the difference between the two sub-regions narrowed slightly, although the neonatal mortality rate remained 60% higher in Southeast Asia. The comparative change in child mortality in the two sub-regions is similar to that for neonatal and post-neonatal mortality, although the difference is smaller, giving a ratio between Southeast Asia and East Asia that varies between 1.3 and 1.8 depending on the period.

3. Excess female child mortality: a problem limited mainly to China

In the 1970s and 1980s, like many other regions of the developing world, East Asia and especially Southeast Asia recorded excess under-five female child mortality that was particularly high and early, often beginning at the age of 2 or 3 months. In other words, when female children emerged from the period of endogenous risks and entered the ages of morbidity and mortality from infectious and parasitic diseases, they rapidly lost their initial biological advantage and became more exposed to risk than male children (Tabutin and Willems, 1995; Tabutin and Gourbin, 1997). With the decline in mortality at early ages, notably through improved control of infectious diseases, excess female child mortality has almost or entirely disappeared from many countries in the world and has been replaced by an overall excess mortality of male children. East Asia and Southeast Asia are no exceptions in this respect, and mortality among male children is systematically higher than among female children, except in China and, for infant mortality only, in Vietnam (Table 12). Deeply entrenched cultural differences distinguish East Asia and Southeast Asia on this issue. Whereas Southeast Asia has a tradition of relative sexual equality, women in East Asia have historically been victims of discrimination,

though fortunately this has been eradicated in most countries of the region, as shown by current sex-specific mortality indicators. Due to the size of China's population, however, the situation there strongly influences the sex differentials in mortality for the region as a whole.

Table 12. Infant mortality rates, under-five mortality rates and female/male ratio of rates, by country (2006)

Country	Infant mortality rate (per thousand)			Under-five mortality rate (per thousand)		
	Girls	Boys	Female/ male ratio of infant mortality rates	Girls	Boys	Female/ male ratio of under-five mortality rates
East Asia						
China	24	17	1.41	27	21	1.29
Japan	3	3	1.00	3	4	0.75
Mongolia	31	38	0.82	38	46	0.83
North Korea	41	43	0.95	53	57	0.93
South Korea	4	5	0.80	5	5	1.00
Southeast Asia						
Brunei Darussalam	7	9	0.78	8	10	0.80
Cambodia	58	71	0.82	75	89	0.84
Indonesia	25	28	0.89	31	36	0.86
Laos	51	67	0.76	70	79	0.89
Malaysia	9	11	0.82	11	13	0.85
Myanmar	64	83	0.77	91	114	0.80
Philippines	20	28	0.71	26	37	0.70
Singapore	2	3	0.67	3	3	1.00
Thailand	7	8	0.88	7	8	0.88
Timor-Leste	41	53	0.77	48	63	0.76
Vietnam	15	14	1.07	16	17	0.94
<i>Source:</i> WHO Statistical Information System http://www.who.int/whosis/data/Search.jsp?indicators , consulted 30 June 2008						

The excess mortality of girl children in China concerns the first year of life as much as the following years. This has been observed for cohorts born since the late 1930s (Coale and Banister, 1994; Riley and Gardner, 1997) but the phenomenon has worsened in the most recent period, both during the 1960s for mortality at ages 1-5 and during the 1980s for infant mortality. At present, the mortality difference between boys and girls is particularly large in the first year of life. Table 13 presents sex-specific infant mortality rates for China for several periods since the early 1970s. It also includes an indicator of excess female child mortality calculated as the ratio of female to male rates. In a population unaffected by discrimination and with relatively low mortality,

this ratio is about 0.8 (Hill and Upchurch, 1995), corresponding to a 20% lower infant mortality rate for girls than for boys. The data assembled in Table 13 show a steady increase in excess female infant mortality in the last thirty years of the twentieth century, reaching a record level in 2000 when mortality of girls exceeded that of boys by 45%, almost double what would be expected if girls had no excess mortality. This excess mortality rate corresponds to almost 100,000 excess deaths of girl children in China during the first year of life.

Table 13. Infant mortality rate (per thousand) by sex and excess female child mortality in China between 1973 and 2000

Source	Period	Girls	Boys	Combined	Female/male ratio of infant mortality rates
Survey 1976 ⁽¹⁾	1973-1975	42.8	48.9	45.9	0.88
Census 1982 ⁽¹⁾	1981	36.7	38.7	37.7	0.95
Survey 1988 ⁽¹⁾	1987	40.8	39.9	40.3	1.02
Census 1990 ⁽¹⁾	1989-1990	29.4	25.5	27.3	1.15
Survey 1992 ⁽¹⁾	1991-1992	41.8	30.7	36.1	1.36
Survey 1995 ⁽²⁾	1994-1995	40.8	30.5	35.2	1.34
Census 2000 ⁽³⁾	1999-2000	38.9	26.5	32.2	1.47

Sources: ⁽¹⁾Huang and Liu, 1995; ⁽²⁾Adjusted data from the 1995 intercensal survey (BNS, 1996); ⁽³⁾Banister, 2007.

Since the 1980s, the excess female mortality observed in early childhood (ages 1-5) has improved relative to that in infancy (age 0-1), but it remains significant. Over the last thirty years, the ratio of rates has oscillated around 1.1 for an expected ratio of around 0.8, again in a population free of discriminatory attitudes (Hill and Upchurch, 1995).

This situation is attributable to a strong culture of son preference combined with the large fertility decline and the relative deterioration in economic conditions for the most deprived families. Although girl children are still the victims of infanticide in some parts of rural China, the main reason for their high excess mortality is neglect (Banister, 2004; Li et al., 2004). An important component of discrimination against girls is unequal access to preventive and curative health care, in a context where privatization has transferred much of the cost of health services from the state to families (Cailliez, 2002). Excess girl mortality is particularly high in the rural areas, with a female/male ratio of rates in 2000 that stood at 1.5 against 1.3 in urban areas.⁽⁵⁴⁾ This urban/rural disparity may indicate that improvement can be expected when the economic growth that has until now chiefly benefited China's cities spreads into the

(54) Calculated by Isabelle Attané using census data with adjustments equivalent to those performed by Banister (2007) for the country as a whole.

countryside. The same may also be true for economic and social inequalities in mortality, in China and in other parts of East and Southeast Asia.

4. Large variations between countries in levels of healthcare

To illustrate the health situation of the region and shed light on geographical inequalities in infant and child mortality, we will examine three important practices for mother and child health: antenatal care, attendance of skilled personnel at childbirth, and vaccination. We will then look at malnutrition, which persists in the region.

Based on the most recent UNICEF data, Appendix Table A.11 presents for each of the 20 countries the probabilities of dying at ages 0-1 month, 0-1 year, and 0-5 years, the proportion of births occurring without antenatal care, the proportion of children vaccinated against measles, and the proportion of children suffering from chronic (severe) malnutrition responsible for stunted growth. Table 14 gives all these indicators as sub-regional averages.

Table 14. Infant and child mortality, antenatal care, delivery conditions, measles vaccination and child malnutrition by sub-region in 2000-2006

Sub-region	Mortality rate (%) ^(a)		Childbirths with no antenatal care (%) ^(b)	Deliveries not attended by skilled health personnel (%) ^(a)	Children vaccinated against measles ^(a) (%)	Children under 5 with severely stunted growth (%) ^(a)
	Infant (2006)	0-5 years (2006)				
East Asia	18	22	9	2	94	22
Southeast Asia	27	35	11	26	82	31
Whole region	21	26	9	8	91	25

Sources: ^(a) UNICEF 2007, *The State of the World's Children 2008*, Statistical tables;
^(b) UNICEF/World Health Organization. *Antenatal Care in Developing Countries: Promises, Achievements and Missed Opportunities*, 2003 except:
 Japan: <http://www.who.int/pmnch/media/news/2008/japanexample.pdf>, consulted 1 July 2008;
 North Korea :
http://www.searo.who.int/LinkFiles/Making_Pregnancy_Safer_WHR2005.pdf, consulted 1 July 2008;
 South Korea: http://www.searo.who.int/LinkFiles/Improving_maternal_newborn_and_child_health_DPR-Korea.pdf,
 Basic Indicators: Health Situation in Southeast Asia, World Health Organization, Southeast Asia Region, 2004, consulted 1 July 2008;
 Singapore: WHO, <http://www.wpro.who.int/internet/files/pub/360/287.pdf>, consulted 1 July 2008.

Antenatal care coverage in the region as a whole is relatively good. Fewer than 10% of mothers, on average, give birth without once attending an antenatal care service (Table 14). While the disparities between the sub-regions are small (the proportion is 9% in East Asia and 11% in Southeast Asia) considerable differences are observed between countries – sometimes neighbouring ones – within the sub-regions, reflecting contrasts in health policies and in socioeconomic conditions (Appendix Table A.11). In several countries (Japan, South Korea,

Brunei Darussalam, Singapore, Mongolia and Thailand), all or almost all pregnant women benefit from at least one antenatal visit, whereas more than 20% receive no antenatal care in Malaysia and Myanmar, and the proportion rises to 31% in Cambodia, 39% in Timor-Leste and to 73% in Laos. The proportion is roughly 10% in China and Vietnam, which are relatively favoured in this respect.

Even larger geographical inequalities are observed for medical attendance at delivery (Appendix Table A.11 and Table 14). Here again, conditions are excellent throughout East Asia and in the most industrialized countries of Southeast Asia (Brunei Darussalam, Malaysia, Thailand and Singapore), but are a cause for concern in Indonesia (where 28% of deliveries take place without qualified personnel), the Philippines (40%), Myanmar (43%), Cambodia (56%) and above all in Laos and Timor-Leste where the proportion exceeds 80%. Because antenatal care and medically attended delivery are closely associated (except, curiously, in Malaysia), this has the effect of raising both maternal and infant mortality risks in the latter countries, as is well illustrated by the level of neonatal mortality (0-1 month) (Appendix Table A.11). The neonatal death rate is very low in Japan, Singapore, South Korea and, to a lesser extent, in Brunei Darussalam and Malaysia (not exceeding 5 per thousand), while it remains high in Cambodia, Myanmar, Timor-Lest and Laos (35-40 per thousand).

Another aspect of access to basic health care services is vaccination coverage, measured here by measles vaccination⁽⁵⁵⁾ (which is especially effective in reducing early childhood mortality). Coverage levels are excellent, close to 100% in most countries, notably in East Asia. Concern persists, however, over some countries mentioned above, particularly Laos (less than half of under-fives are vaccinated against measles) and Timor-Leste (below two-thirds). More disturbing is that Southeast Asia is the only world region in which vaccination coverage levels have stagnated or even regressed over the last ten years, this at a time when substantial progress has been achieved in sub-Saharan Africa. Of some 350,000 infant and child deaths from measles in the world each year (against more than 6 million forty years ago), nearly 180,000 are in Asia (Wolfson et al., 2007). The 45 countries identified by UNICEF and WHO as having priority on this issue, and which account for more than 95% of measles deaths, include Indonesia, Myanmar, Timor-Leste, Cambodia, Laos, and Vietnam. Although the relationship between measles vaccination and under-five mortality is not systematic, the countries where vaccination coverage is below 80% are in general those where under-five mortality is highest: they are Myanmar (with a rate still in excess of 100 per thousand in 2006), Cambodia (82 per thousand), and Laos (75 per thousand). There are a few exceptions, however, including Indonesia, where under-five mortality of 34 per thousand is less than half the level in Cambodia despite a lower vaccination coverage,

(55) A strong relationship exists between coverage rates for measles vaccination and coverage rates for the other communicable diseases (polio, whooping cough, tuberculosis, diphtheria and hepatitis B), so that these observations apply to the extended vaccination programme as a whole.

and Timor-Leste (55 per thousand with a vaccination coverage 64% lower). These figures illustrate the effectiveness of the primary health care strategy based on promoting vertical intervention to combat disease – in this case a comprehensive vaccination programme – despite an unfavourable socioeconomic context, since both these countries benefited from intensive campaigns conducted by the national government or by international organizations.

As a consequence of poor living standards, low incomes and poverty in some countries and populations, child malnutrition remains a major problem in the region. One child in four suffers from stunted growth, a smaller proportion than in South Asia (40%) or sub-Saharan Africa (45%) but larger than in the Arab World and the Middle East (under 20%) or in Latin America (16%). Recent estimates put at 3.5 million the number of under-five deaths in East Asia and Southeast Asia with malnutrition as a contributing factor (Black et al., 2008). Not only do most infectious and parasitic diseases of early childhood frequently cause malnutrition through appetite loss and diarrhoea, but malnutrition itself is commonly a factor of morbidity and mortality since by weakening the immune system it increases susceptibility to many of the killer diseases of early childhood. Almost 70% of the children concerned by this problem live in Asia. Deficiencies in zinc and vitamin A are alone responsible for over 60,000 deaths of under-fives in the two sub-regions considered here (Black et al., 2008). Like for the other health indicators, however, wide geographical variations exist between the two sub-regions (22% of children malnourished in East Asia, against 31% in Southeast Asia) but also between countries, with proportions ranging from under 5% in Singapore (and no doubt lower in Japan and South Korea, for which figures are lacking) to over 55% in Timor-Leste (Appendix Table A.11). With a reduction of over 30% in child malnutrition over the last ten years, East Asia may well be the world region that has achieved the fastest progress in this field, but the situation remains a matter for concern in Southeast Asia where half of all children aged under five are moderately or severely underweight.⁽⁵⁶⁾ More worrying still, a worsening of the situation can be expected not only in countries affected by political crises or natural disasters (Myanmar and Timor-Leste in particular) but also among the poorest populations in the other countries of the region, who suffer disproportionately when prices of basic foodstuffs rise on the world market (FAO, 2003).

5. Strong geographical and social inequalities within countries

However dissimilar in their political and economic histories, all countries of the region – as elsewhere – present major social and regional inequalities in child health and mortality. In every case, the variations within countries exceed those between countries. In Indonesia, for example, civil records show that infant mortality rates in 1999 ranged from 24-25 per thousand in Jakarta

(56) WHO regional office,
<http://www.searo.who.int/en/Section13/Section37/Section135.htm>, consulted 2 July 2008.

and Yogyakarta provinces to 81 per thousand in Nusa Tenggara Barat province, while mortality rates of children aged 1-5 ranged from around 5 per thousand in the former two provinces to over 40 per thousand in the latter.⁽⁵⁷⁾

The disparities between social groups in populations for which the civil registration system is deficient can be measured using DHS (Demographic Health Surveys) and MICS (Multiple Indicator Cluster Surveys) data.⁽⁵⁸⁾ Unfortunately, few countries in the region have taken part in these survey programmes, while access to data from recent comparable national surveys is often problematic. Results from the few countries where DHS or MICS surveys have been conducted are nonetheless highly informative about mortality differentials among children. Table 15 presents the mortality variations at different ages in early childhood by mother's educational level (women with secondary education versus women with no education) and by place of residence (urban versus rural) in the five countries for which at least one DHS survey is available, namely Cambodia, Indonesia, the Philippines, Thailand and Vietnam.

A number of points can be made. The first concerns the large size of the differentials, whether on mother's education or place of residence. In the most recent period, the under-five mortality rate for children born in a rural area was at least 50% higher than for children born in urban areas, and in Vietnam it was twice as high. The ratio of mortality rates by the mother's educational level is even larger, equal to a factor of nearly 2.5 in the countries under consideration and even 3.7 in the Philippines. On the basis of this limited information, therefore, it seems that infant and child mortality is influenced more by the mother's characteristics than by healthcare access or other contextual factors. The second point to note is the apparent widening of inequalities in some countries such as Cambodia and, above all, Vietnam. In Vietnam the ratios of under-five mortality rates by place of residence and by mother's educational level climbed from 1.6 to 2.2 and from 2.0 to 2.3, respectively, between the 1997 and 2002 surveys, i.e. in the space of just five years. This change does not necessarily signify a worsening of conditions, however. Occurring in a period of rapid economic expansion, it probably reflects a selection effect on the poorest groups in the population or, at any rate, a general rise in living standards that produces greater benefits in urban settings and for the more affluent groups than in rural areas and for the poorest populations. The third point to note is the large variation in the size of the differentials according to age (with a distinction between the neonatal, post-neonatal and early-childhood periods), although no clear region-wide pattern is perceptible. When the mortality level is analysed according to the mother's educational level, however, the differences are generally much larger in early

(57) Statistics Indonesia,

<http://www.bps.go.id/sector/population/table5.shtml>, consulted 25 October 2007.

(58) See section II of this article, dealing with the sources of demographic information, for descriptions of these two types of survey.

Table 15. Ratios of under-five mortality rates by mother's characteristics, 1987-2005 (%)

Country and survey year	Ratio of mortality rate of children whose mother has no education to that of children whose mother has secondary education or above					Ratio of mortality rate of children in rural areas to that of children in urban areas				
	Neonatal mortality	Post-neonatal mortality	Infant mortality	Child mortality	Under-five mortality	Neonatal mortality	Post-neonatal mortality	Infant mortality	Child mortality	Under-five mortality
Cambodia										
2000	159	181	172	222	180	151	121	132	154	136
2005	180	324	249	319	256	131	150	142	181	147
Indonesia										
1987	241	313	279	405	302	167	167	167	157	161
1991	187	341	257	366	281	133	149	142	137	139
1994	152	363	229	386	259	157	195	174	204	181
1997	240	331	277	451	308	141	186	162	177	165
2002-2003	186	309	231	308	245	139	202	164	121	153
Philippines										
1993	108	480	265	590	360	128	149	139	142	139
1998	198	410	277	559	348	117	147	130	151	136
2003	232	406	295	646	367	152	147	150	254	172
Thailand										
1987	304	294	300	1029	368	127	254	158	134	151
Vietnam										
1997	144	214	168	342	202	117	366	158	166	159
2002	356	78	265	121	231	210	261	222	217	220

Source: Table constructed using data from the Demographic and Health Surveys website, <http://www.measuredhs.com/>, consulted 2 July 2008.

childhood than in infancy. Vietnam is the exception to this pattern in that maternal education is a particularly discriminating factor during the first month of life (the neonatal mortality rates vary by a factor of 3.6), but the explanation for this large disparity may lie with the generally high school enrolment rates across the country, with uneducated women forming a very small and marginal group in the population. The variability in child mortality rates by mother's level of education are nonetheless much smaller in Vietnam than in the other countries. We note also that the relative differences are particularly large for the countries where under-five mortality has fallen to low overall levels. Thus, for example, childhood mortality in Thailand varies in a ratio of 1 to 10 between the children of women with secondary level education and those of women with no education (a tiny group in this country too); but the respective rates are merely 2 and 21 per thousand. Maternal education is also an important determinant of childhood mortality levels in China, though to a much lesser degree than in Thailand. In the 1990 census, the infant mortality rate for illiterate or semi-illiterate Chinese women was three times higher (47 per thousand) than for women educated to at least secondary level (14 per thousand) (Han and Li, 1999).

Information from surveys, censuses and other sources offers insight into the mechanisms at work in these differentials. It is known, for example, that urban and rural areas differ substantially as regards sanitation: among the urban populations of the sixteen countries of East Asia and Southeast Asia, excepting Cambodia, where the proportion is 65%, at least 80% have direct access to a clean water supply (100% in Brunei Darussalam, Japan, Malaysia, South Korea and Singapore), while the proportion for the rural population is below 70% in nearly half of them (and below 35% in Cambodia and Mongolia). Compared with urban centres, many rural areas lack sewage disposal facilities, and the urban-rural disparities in access to infrastructures deemed "adequate" by international standards varies by a factor of two in China, Indonesia, Mongolia, Timor-Leste, and Vietnam, by a factor of three in Laos and even by a factor of five in Cambodia (UNICEF, 2008). General sanitary conditions in urban areas are clearly more favourable than in rural areas. In Cambodia, where only 8% of the rural population benefits from sanitation amenities considered adequate by WHO, and in Laos (20%), China (28%), and Timor-Leste (33%) (UNICEF, 2008), the situation is worse than in sub-Saharan Africa, where 37% of the total population has access to sewage disposal systems. This situation explains the high frequency of infectious and parasitic diseases, of which children under-five are the main victims in most countries of the region.

Survey data consistently reveal the importance of maternal characteristics in the adoption of health behaviour favourable to children. Vaccination, an essential preventive factor in the fight against contagious diseases, varies widely between social groups. The data of the DHS surveys referred to above indicate that vaccination frequency among children of mothers educated to secondary level is always (for the five countries covered by the surveys) two, three or even

four times (Indonesian DHS, 2002-2003) higher than among children of uneducated mothers.⁽⁵⁹⁾ More worryingly, in the countries where more than one survey has been conducted, the disparities, far from narrowing, are tending instead to grow. In addition, a strong relationship exists between educational level and place of residence on the one hand, and vaccination and other health behaviours (such as rehydration to combat the adverse effects of diarrhoea, use of mosquito nets to prevent malaria, medical visits in the event of severe illness) on the other. Children in some population groups are thus exposed to all the risks combined. The region’s rapid economic development, however, should bring a gradual improvement for these populations although, for the time being, the most advantaged are also those whose situation is progressing most rapidly.

XII. Age-sex structures: spectacular demographic changes

East Asia and Southeast Asia are significantly ahead of the rest of the world in terms of structural demographic change, with a median age above 31 years in 2005, less than one quarter of the population aged 0-14, and over 10% aged over 60 (Table 16). Rapid population ageing in East and Southeast Asia has meant that the age structure of these regions is gradually converging with that of the industrialized countries, although the latter are still well ahead for all these indicators.

The changes in East and Southeast Asia are all the more spectacular given that the fertility and mortality rates in this region were still among the highest in the world as recently as forty years ago – unlike Latin America and the

Table 16 – Indicators of age-sex structures by sub-region in 2005

Sub-region	Median age of population (years)	Percentage under 15	Percentage aged 60+	Sex ratio (%) ^(a)
East Asia	33.4	20.9	12.4	105.4
Southeast Asia	26.0	29.3	8.0	99.5
Whole region	31.4	23.1	11.2	103.8
Arab World and Middle East	23.5	32.9	6.6	104.0
Sub-Saharan Africa	18.0	43.5	4.8	98.9
South Asia	23.2	33.9	7.0	106.7
Latin America and the Caribbean	26.0	29.8	9.0	97.5
World	28.0	28.3	10.3	101.6
Developed countries	38.6	17.0	20.1	94.3

^(a) Ratio of males to females expressed as a percentage.
Source: United Nations (2006a).

(59) Data available on the Demographic and Health Surveys website, <http://www.mesuredhs.com/>, consulted 2 July 2008.

Caribbean, where the demographic transition was both early and relatively slow. From 35% in 1950, the proportion of 0-14 year olds in the region declined to just 23% in 2005, while the proportion aged 60 and above rose in the same period from 7% to 11%. These trends are expected to become more pronounced in the next two or three decades as a result of current mortality and fertility trends, which are yet to have their full impact on the age structures of both regions. Rapid population ageing, examined in greater detail below, is the primary demographic challenge for East and Southeast Asia at the start of the twenty-first century, and is expected to remain so at least until 2050. The proportion of working-age people (age 15-59) will nonetheless remain consistently high over the same period, varying between 60% and 65%. After bottoming out in 1965-1970 at approximately 50-55%, this proportion has since increased and is expected to peak at 67% in around 2020 before slowly decreasing again.

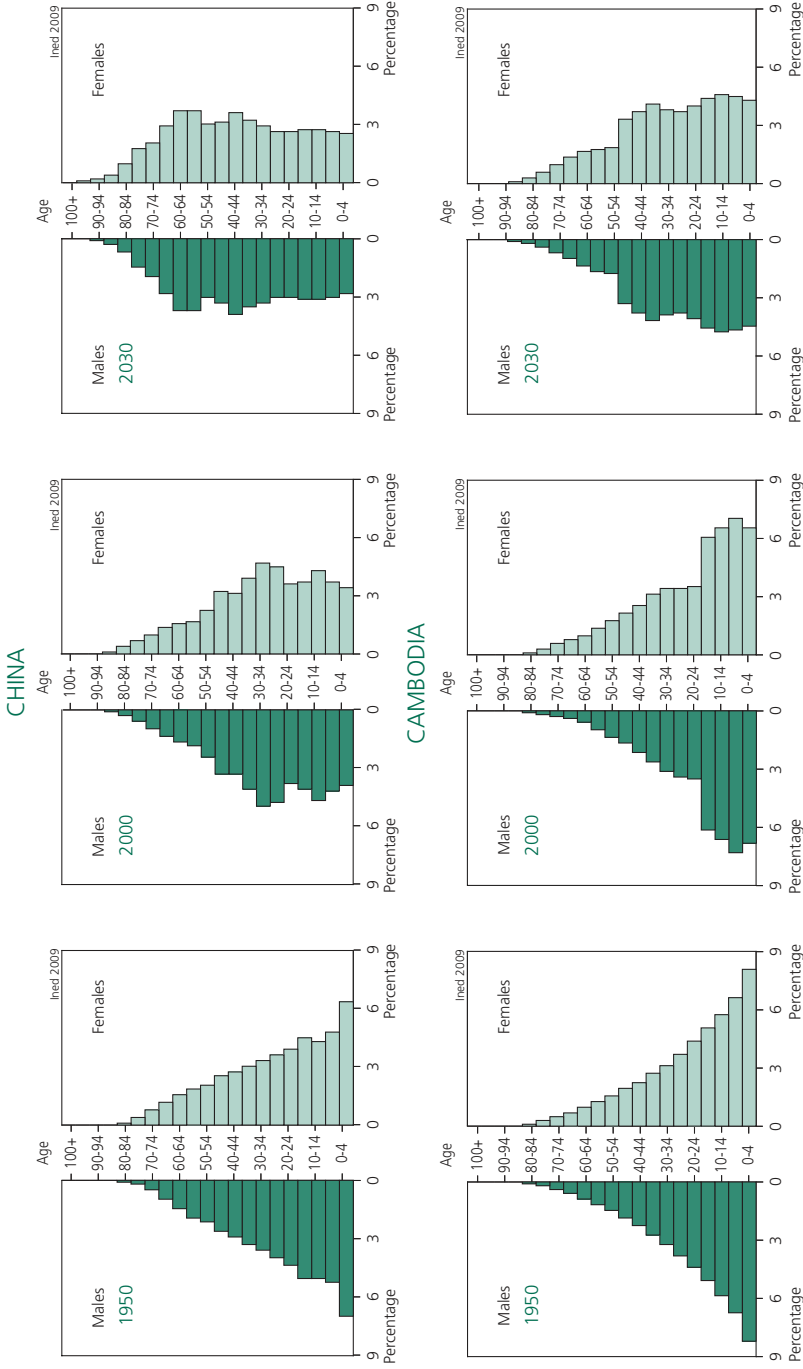
1. Large inter- and intra-regional variations

The analysis of age-sex structures in the sub-regions and countries of East and Southeast Asia reveals a number of significant demographic differences (Table 16 and Appendix Table A.12). The population of East Asia is significantly older than that of Southeast Asia: the median age is above 33 years in the former, versus just 26 years in the latter. The proportion of 0-14 year olds in Southeast Asia is 50% higher than in East Asia (nearly 30% versus just above 20%), and the relative proportion of over 60 year olds is also significantly lower than in East Asia (8% versus 12%). The “youngest” countries in the region, namely Timor-Leste (median age 17 years), Laos (19 years) and Cambodia (20 years), are all in Southeast Asia. Conversely, all of the countries in East Asia except Mongolia (where the median age is 24 years) have a median age above 30 years, with the highest median age in Japan (43 years). There are two exceptions in Southeast Asia: Singapore and Thailand, where the median age is relatively high (respectively 37.5 and 33 years).

Not surprisingly, the countries with the lowest median age are also those where the proportion of 0-14 year olds in the population is highest. For example, the country with the lowest median age, Timor-Leste, is also the country with the highest proportion of 0-14 year olds (45% in 2005). Likewise, in both Laos and Cambodia, the 0-14 age group makes up nearly 40% of the total population. By contrast, the proportion of people aged 60 and over is very low in all three countries (approximately 5%). However, the proportion of over-60s is high in countries that have a high median age: above 25% in Japan and above 10% in China, Thailand, Singapore and the two Koreas.

We will now take a more detailed look at the changes in the population pyramids of four countries (China, Cambodia, Indonesia and Singapore) between 1950 and 2000, and the predicted trends up to 2030. These countries provide a good illustration of the range of demographic structures observed in the region (Figure 26). In 1950, while the population pyramids of Indonesia

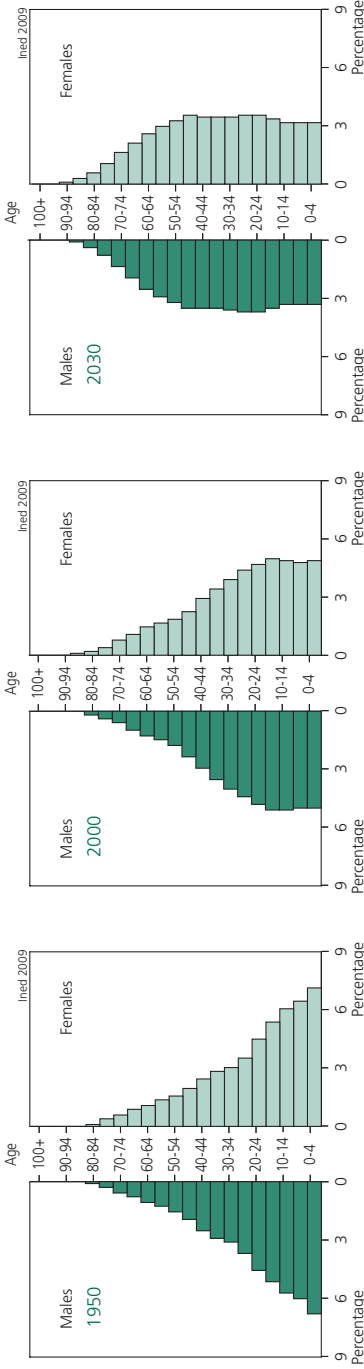
Figure 26. Population pyramids of China, Cambodia, Indonesia and Singapore, 1950, 2000 and 2030



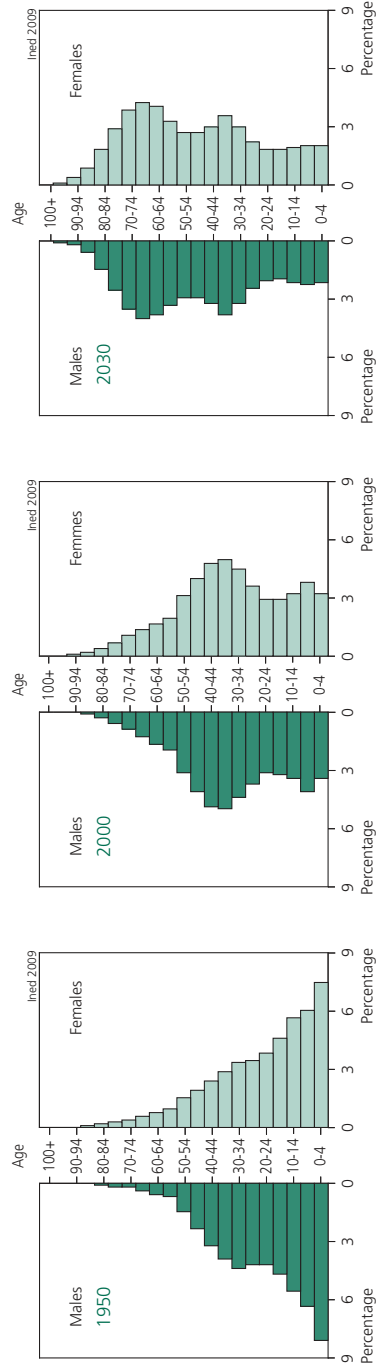
Source: United Nations, 2006a.

Figure 26 (cont'd). Population pyramids of China, Cambodia, Indonesia and Singapore, 1950, 2000 and 2030

INDONESIA



SINGAPORE



Source: United Nations, 2006a.

and Cambodia are typical of the pre-transitional period, those of China and Singapore already present major differences. Because of the rapid increase in its birth rate in the early 1950s, after the Communists came to power, China is marked by a pronounced difference between the first two age groups. The main feature of Singapore's pyramid is a significant bulge, primarily in the number of men aged 30-50, which can be attributed to large-scale waves of immigration, predominantly from China and India. Today, the pyramidal structure has disappeared in all four countries. Their main demographic features have become more diverse, and are expected to diverge further in the coming decades. Cambodia and Indonesia present the most regular population pyramids, but even here they diverge from the characteristic shape of the 1950s.

In Cambodia, the demographic depletion caused by the reign of the Khmer Rouge between 1975 and 1979, which resulted in one of the worst genocides in world history, is clearly visible in the 15-19 and 20-24 age groups of the 2000 population pyramid. These depleted cohorts do not merely reflect the dramatic mortality increase, with 25% of the population killed during these five years alone, but is also indicative of a sudden decrease in fertility, which declined by a third (Heuveline, 2007). The tragic era of the Khmer Rouge was followed by an almost equally spectacular period of demographic growth marked by a swift recovery of fertility, which rose above the level observed before the reign of the Khmer Rouge, with approximately 7 children per woman, and which continued for over a decade. Despite a gradual decline after the baby boom, Cambodia's current fertility rate still remains relatively high (4 children per woman), as shown by the wide base of Cambodia's population pyramid and the still large proportion of 0-14 year olds in 2000 (42%). The demographic crisis of the 1970s accounts for the differences between the Cambodian population age structure and those of Laos and Timor-Leste, where the pyramidal shape is expected to remain at least until 2030. Mongolia, Vietnam, and Brunei Darussalam are also relatively similar in this respect, though the ongoing fertility decline – a steadier and far more substantial decline than in Cambodia, Laos and Timor-Leste – will rapidly modify the country's age structure, with a marked narrowing of the base of the pyramid. In all of these countries, the proportion of 0-14 year olds is expected to remain as high as 20-30% by 2050, compared with just 10-15% in nearly all countries of East Asia. The proportion of old people will remain relatively low, at around 15-18%, with the notable exception of Vietnam (where it is expected to reach 26%).

The age structure of Indonesia (Figure 26) is highly representative of Southeast Asia as a whole, and is very similar to that of the Philippines, Myanmar, Malaysia and Thailand. The bell shape, which is already perceptible today, will become more pronounced up to 2030, reflecting a steady decrease in mortality and fertility. The respective ratios of the three major age groups,

i.e. young people, working-age people and old people, are at intermediate levels between the ratios of the countries described above and those of countries where the demographic transition was either earlier or more pronounced. In 2030, 0-14 year olds will make up 16-17% of the total population, and over 60 year olds around 22-25%.

The two other countries selected here are highly representative of rapid demographic transitions and their current low fertility rate has produced a distinct narrowing of the pyramid. In China and Singapore, the current age structure is expected to change relatively little up to 2030, although the pyramid will become increasingly top-heavy, in Singapore especially. The irregularities of shape observed both in 2000 and in 2030 can be explained by factors that are generally similar but which emerged at different points in time. In Singapore, the fertility decrease is not a recent trend since it began in the early 1950s and had fallen to replacement level by 1975 (Barbieri, 2006). It was paralleled by rapid health improvements which resulted in accelerated population ageing only partly offset by large waves of immigration. The specific demographic history of Singapore accounts for the early narrowing of the base of the population pyramid and for the bulges observed for certain age groups. China's demographic transition is more recent, as indicated by the relatively regular shape of the pyramid in 2000. The political and health crises that affected China, as well as North Korea, in the twentieth century have produced large dents in the age structure. However, their pyramids are expected to smooth out; the persistent low fertility and continuing mortality decline that is predicted for these countries will result in a shape more like a fir tree, not unlike that currently observed in Japan and South Korea. All of these countries currently have the lowest proportions of young people in the region as well as the highest proportions of old people. This trend is expected to continue in the coming decades, with only 10-15% of young people and above 30% of old people in 2030.

2. A pronounced sex-ratio imbalance

East Asia is marked by a highly pronounced sex-ratio imbalance, in a population where the impact of migratory flows on the demographic structure of the region is generally very low. Although, worldwide, there are about as many men as women (close to 102 men for 100 women), East Asia has a ratio of roughly 105 men for 100 women, close to the ratio observed throughout the Arab world and in the Middle East, as well as in South Asia (Table 16). By contrast, the sex ratio of Southeast Asia (100 men for 100 women) is below the world average. Note, however, that the pronounced gender imbalance observed in East Asia can be solely attributed to China, where the sex ratio is close to 107. Elsewhere in the same sub-region, it is either equal to 100 (South Korea and Mongolia) or below 100 (North Korea and above all Japan) (Appendix Table A.12). Some countries in Southeast Asia have sex ratios comparable to

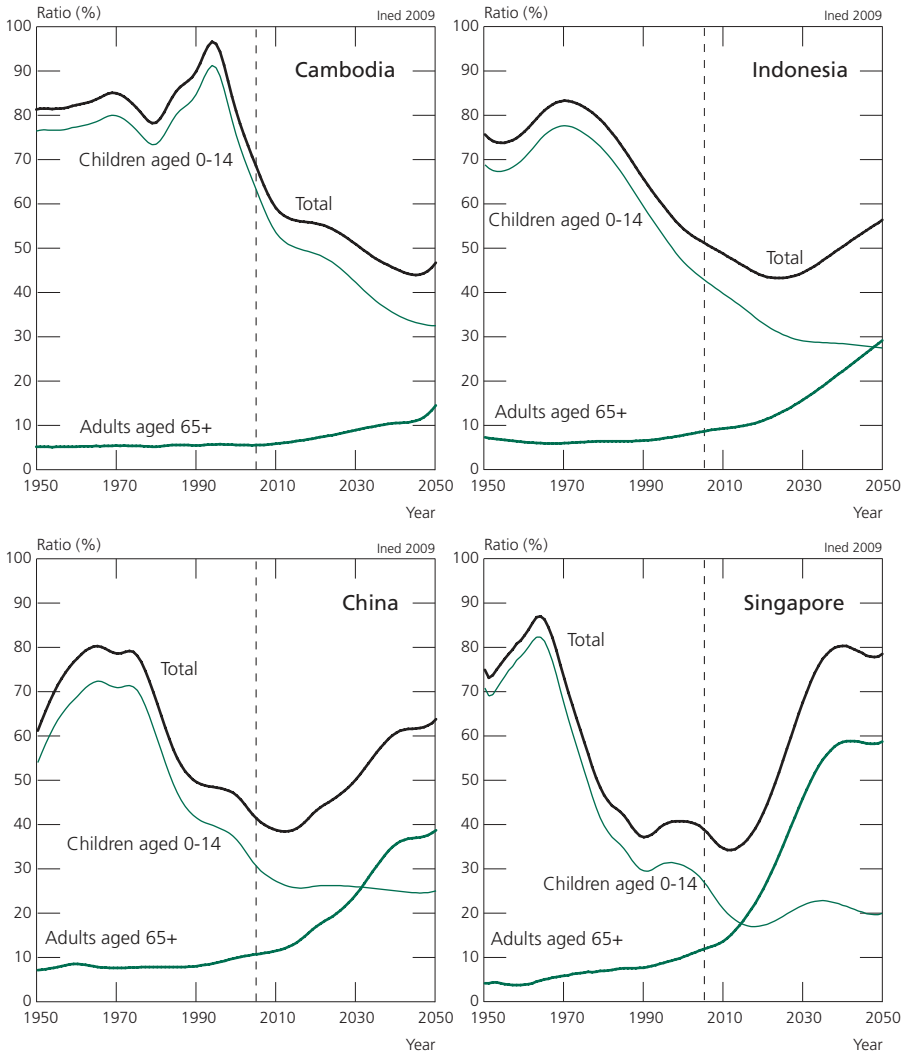
that of China (such as Brunei Darussalam and Timor-Leste, where they stand respectively at 108 and 103 men for 100 women). These countries are sparsely populated, however, and their impact on the sex ratio of the sub-region as a whole is very limited.

3. Dependency ratios and demographic dividends

As in other developing regions, the current rapid fertility decline has caused a simultaneous decrease in dependency ratios⁽⁶⁰⁾ in nearly all countries of East and Southeast Asia. At present, this ratio is moving in a very favourable direction (i.e. towards a very low number of children and old people per adult), and is about to reach its lowest point in many countries of the region. The earlier and/or more rapid the fertility decrease, the lower the level at which the dependency ratio will bottom out and the sooner this will occur. Figure 27 shows three different kinds of dependency ratios for the four representative countries of the region (Cambodia, Indonesia, China and Singapore): child dependency ratio, (number of children aged 0-14 for every 100 adults aged 15-64); old-age dependency ratio (number of over-65s for every 100 adults aged 15-64); and total dependency ratio, i.e. the sum of the first two ratios. According to the most recent United Nations estimates (2006a), in the countries included here, the total dependency ratio will bottom out first in 2012 in China and in Singapore, respectively at 39 and 34 dependants for every 100 working-age people, i.e. nearly three times more working-age adults than young people and old people. This will occur at a later date in Indonesia (2024) and in Cambodia (2045), and at a higher level (43 and 44 dependants for every 100 working-age adults, respectively). Until it reaches its lowest level, the curve of the total dependency ratio follows almost exactly the curve of the child dependency ratio. After this the two curves diverge, while the curves representing the total dependency ratio and old-age dependency ratio gradually converge. The trend is particularly visible in Singapore, though it will eventually spread to every country of the region. After reaching a minimum, the total dependency ratio is forecast to increase everywhere as quickly as it decreased, reaching 79 in Singapore, 64 in China, 56 in Indonesia and 47 in Cambodia by 2050. Because of demographic inertia, the same trend is expected to continue well beyond the twenty-first century. By reducing the demographic pressure exerted by young and old people on working-age adults (in particular thanks to a lower burden of expenditure for the education of the former, and for the health of both groups), the decreasing dependency ratios have potentially significant social and economic implications. Note, however, that this purely demographic indicator can only reflect a real economic dependency ratio under highly specific and rarely fulfilled conditions, i.e. when all individuals aged 0-14 and aged 65+ are economically inactive and all adults aged 15-64 are economically

(60) The dependency ratio is defined as the ratio of the total “dependent” population (age 0-14 and 65+) to the total working-age population (age 15-64).

Figure 27. Child dependency ratio (age 0-14 / age 15-64), old-age dependency ratio (age 65+ / age 15-64) and total dependency ratio (age 0-14 and 65 / age 15-64). Cambodia, Indonesia, China and Singapore, 1950-2050



Source: United Nations, 2006a.

active. In fact, the burden of economic dependency may be increased by a devalued labour market, since unemployed workers increase the proportion of economic dependants and, conversely, may be reduced by a high proportion of economically active young people and old people. In a favourable economic environment, falling dependency ratios yield “demographic dividends”, i.e. faster economic growth and human development linked to these changing

demographic structures. As noted above, this is clearly conditional upon numerous other political and economic factors.

4. Accelerated population ageing

Population ageing has only emerged recently as a demographic issue in Asia. The effects of this new long-term demographic trend will become apparent in the next three or four decades, when the proportion of over-60s will be higher than the proportion of 0-14 year-olds. In the region as a whole, the number of old people is currently increasing far more rapidly than the total population, at an annual rate of 3% versus just 1%. Moreover, the gap between the two rates is set to widen in the coming decades, since the total population growth rate will slow down much faster (just +0.2% per year in Southeast Asia by 2045-2050, and even negative in East Asia at -0.4% per year) than that of the over-60s (+0.7% per year in Southeast Asia by 2045-2050 and nearly +2.0% per year in East Asia). According to the most recent United Nations projections (United Nations, 2006a), the proportion of 0-14 year-olds will be below 20% by 2020, and the proportion of over-60s will be in the region of 17%, while the median age is expected to exceed 30. With all the caution that must be exercised in using more distant and therefore more uncertain projections, the median age is expected to be around 43 years by 2040; people aged 0-14 will account for just 16% of the total population, with over-60s making up more than a quarter of the total. Old people will therefore be twice as numerous as young people. This demographic trend will have a wide range of major economic, sociological, cultural and political effects. In view of the vast size of the population concerned, the number of over-60s will be considerable by this time, i.e. nearly 630 million people (compared with 230 million today) – significantly more than the current population of the European Union (which has 27 countries and some 450 million inhabitants). There will also be rapid ageing within the population of old people; the annual growth rate of people aged 80 and over currently stands at 4.5% in both sub-regions. This growth rate is currently peaking (2005-2010), but will still be close to 4% per year in 2045-2050 (United Nations, 2007).

5. An issue that particularly affects women

The gender imbalance observed in the total population is an altogether different issue in the specific case of old people. Women constitute a growing proportion of the total number of old people, which also increases with age. For the over-60 age group, current sex ratios stand at just 85 men for 100 women in Southeast Asia and 90 men for 100 women in East Asia, and for the over-80 age group the ratios are 70 men and 60 men for 100 women, respectively. The current gender imbalance should become even more pronounced in the coming decades because women's life expectancy is increasing faster than that of men. According to the most recent United Nations estimates (United Nations,

2007), in the 2005-2010 period, women aged 80 have a life expectancy of 8.5 years in East Asia and 6.5 years in Southeast Asia; by 2045-2050 it is expected to reach 10.3 and 8.7 years, respectively. By contrast, the increase of male life expectancy at age 80, which currently stands at 6.5 years in East Asia and 6.0 years in Southeast Asia, will be much lower, with life expectancies at age 80 reaching 6.9 and 7.8 years, respectively.

These differences in male and female longevity trends explain why women are more likely to be alone in old age than their male counterparts. The same United Nations report remarks that just 40% of women aged 60 and over are still married in Southeast Asia (55% in East Asia), compared with more than 80% of men of the same age in both sub-regions. However, because family solidarity and traditional multi-generational households are still characteristic features of social life in the region, the proportion of women aged 60 and over and living alone is much lower, at around 10% in both sub-regions (versus 7% of men in East Asia and just 3% in Southeast Asia, since mortality in the latter region is declining more slowly than in the former). The slow decrease in fertility and therefore in the number of adult children able to take care of their elderly parents, combined with a rural exodus that will intensify in the coming years and which exclusively concerns young people, suggest that the living conditions of old people in general, and of women in particular, may worsen. Moreover, extensive provision of institutional support cannot be envisaged in the short term since the countries in the region, with a few rare exceptions (Japan in particular), still have very few health care structures or programmes specifically designed for the elderly.

XIII. Urbanization: the rise of cities

In this region, as elsewhere in the world, rapid growth of the urban population was one of the key transformations of the second half of the twentieth century, and one that will certainly continue into the twenty-first.⁽⁶¹⁾ Although the region was still essentially rural fifty years ago, according to UN demographic forecasts (United Nations, 2008) it will have more urban-dwellers than rural ones in 2015. In 1950, less than one inhabitant in seven lived in a city. By 1975 the figure was one in four, and in 2000 40% of the population was urban. The percentage should be as high as 60% in 2025 (Table 17). In all, the urban population has grown six-fold in fifty years, from nearly 140 million in 1950 to more than 800 million in 2000 and, still according to UN projections, should reach 1.4 billion in 2025. The percentage urban in East Asia and Southeast Asia is about average for a developing region. It is currently slightly higher than that of South Asia and sub-Saharan Africa but below that of the Arab

(61) Urban growth results from the natural growth of cities (the difference between births and deaths) as well as from migration from rural to urban areas and the reclassifying of rural areas as urban ones.

World and the Middle East, and lags far behind that of Latin America and the Caribbean (Table 17).

However, given the much faster urban population growth in East and Southeast Asia since 1975, the region may well catch up after 2025. The urban population in these two regions grew by more than 70% between 1975 and 2000 compared with 60% in sub-Saharan Africa, 30% in South Asia and the Arab World and the Middle East, and only 25% in Latin America and the Caribbean. The UN estimates that even if the pace of urbanization were to slow down everywhere, urban population growth will still be faster in East and Southeast Asia than elsewhere, increasing by more than 50% between 2000 and 2025 compared with 45% in sub-Saharan Africa, 35% in South Asia and the Arab World, and 10% in Latin America and the Caribbean.

Table 17. Percentage urban by sub-region from 1950 to 2000 and prospects for 2025

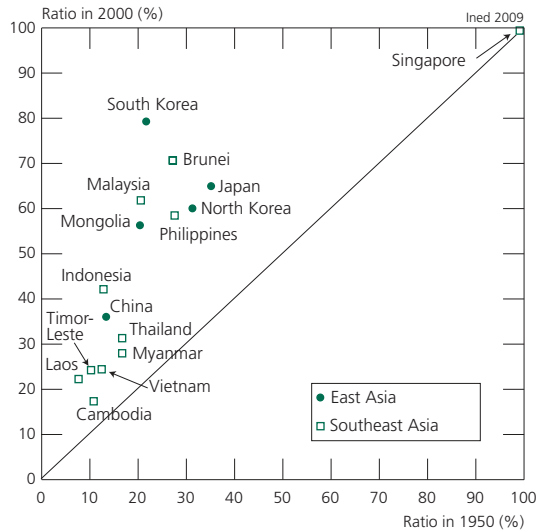
Sub-region	1950	1975	2000	2025
East Asia	16.5	23.3	40.4	59.2
Southeast Asia	15.4	23.2	39.7	58.7
Whole region	16.3	23.3	40.3	59.1
South Asia ^(a)	16.6	22.2	29.5	40.2
Arab World and Middle East ^(a)	26.5	45.4	59.8	69.2
Latin America and the Caribbean ^(a)	41.9	61.2	75.5	83.5
Sub-Saharan Africa ^(a)	11.0	20.0	32.5	46.6

^(a) Region defined as in Tabutin and Schoumaker, 2004 and 2005; Guzman et al., 2006; and Véron, 2008.
Source: United Nations (2008).

1. Contrasting national situations

The two sub-regions that make up East and Southeast Asia are remarkably similar in terms of urbanization, with urban-rural ratios that remain similar over time, at least since 1950. However, within these two sub-groups there are major contrasts in both levels and trends. In the early 1950s, the percentage urban ranged from 7% in Laos to already 100% for Singapore. If we exclude Singapore, the highest level was found in Japan, with 35%. Between Laos and Japan, there was a wide range of national gradients in East and Southeast Asia. That still holds true today, but the magnitude is greater since the urban growth rates of the past five decades are related to the urbanization levels observed in 1950: the larger the urban population in 1950, the faster that population grew during the following five decades. Thus in 2000, the urban population ranged from 17% in Cambodia to 80% in South Korea, with Singapore of course remaining 100% urban. Overall,

Figure 28. Urban-rural ratios in 1950 and in 2000 in the 16 countries of the region



Source: United Nations (2008).

urbanization has thus been slower in the less socioeconomically developed countries. However, certain political regimes in place from the 1960s to the 1980s disrupted the relationship between urbanization and economic growth. With the (notable) exception of North Korea, countries under a Communist regime from the 1960s to the 1980s, namely China, Cambodia, Vietnam, Myanmar and Laos, had a relatively low percentage urban in relation to their socioeconomic development (Figure 28). One of the characteristics of these political regimes was to maintain populations in the countryside by force, or even to dispatch populations there. Cambodia is a good illustration of this phenomenon, for its cities lost nearly 60% of their population when the Khmer Rouge came to power in 1975. By contrast, after their departure in 1979, the return of these populations combined with a strong rural exodus resulted in a threefold increase in the urban population over the following twenty years. Given their demographic potential and the relaxing of constraints on internal geographic mobility in most of the above countries, the UN forecasts that this is where urban growth in the region will be concentrated in the years to come. According to UN projections, the urban population should increase by at least 100% in Laos and Cambodia, and approximately 60% in China, Vietnam and Myanmar between 2000 and 2025. By contrast, the increase should be below 20% in North and South Korea, Japan, Mongolia, and Brunei Darussalam, and 30% in Thailand, Malaysia and the Philippines. Indonesia is an exception, with urban growth estimated at more than 100% between 1975 and 2000 and close to 60% between 2000 and 2025.

Table 18. Population change between 1950-2000 in the main cities of selected countries in the region, and prospects for 2015 (in alphabetical order of cities)

Cities	Country	Population (thousands)				Average annual growth rate (%)		% of country's total pop. in 2005	% of country's urban pop. in 2005
		1950	1975	2000	2015	1950-1975	1975-2000		
Bangkok	Thailand	1,360	3,842	6,332	7,332	4.2	2.0	10	32
Beijing	China	4,331	6,034	9,782	12,842	1.3	1.9	1	2
Chongqing	China	1,680	2,439	6,037	7,254	1.5	3.6	0	1
Guangzhou	China	1,491	2,673	7,388	10,414	2.3	4.1	1	2
Hanoi	Vietnam	280	1,884	3,752	5,357	7.6	2.8	5	19
Ho Chi Minh City	Vietnam	1,213	2,808	4,621	6,480	3.4	2.0	6	23
Hong Kong	China	1,682	3,943	6,662	7,744	3.4	2.1	1	1
Jakarta	Indonesia	1,452	4,813	8,390	10,792	4.8	2.2	4	8
Kuala Lumpur	Malaysia	208	645	1,306	1,670	4.5	2.8	5	8
Manila	Philippines	1,544	4,999	9,958	12,786	4.7	2.8	13	20
Osaka-Kobe	Japan	4,147	9,844	11,165	11,365	3.5	0.5	9	13
Phnom Penh	Cambodia	364	100	1,160	2,028	-5.2	9.8	10	50
Pyongyang	North Korea	516	1,348	3,117	3,434	3.8	3.4	14	22
Rangoon	Myanmar	1,302	2,151	3,553	4,841	2.0	2.0	8	27
Seoul	South Korea	1,021	6,808	9,917	9,740	7.6	1.5	21	25
Shanghai	China	6,066	7,326	13,243	17,214	0.8	2.4	1	3
Shenzhen	China	174	301	6,069	8,952	2.2	12.0	1	1
Singapore	Singapore	1,016	2,263	4,017	4,809	3.2	2.3	100	100
Tianjin	China	2,374	4,870	6,722	8,113	2.9	1.3	1	1
Tokyo	Japan	11,275	26,615	34,450	36,371	3.4	1.0	28	42
Wuhan	China	1,311	2,666	6,662	8,199	2.8	3.7	1	1

Source: United Nations (2008).

2. An increasingly dense urban network

Not only has the urban population grown over the past 50 years, but the number of large cities has increased. In 2000 the region had 136 of the world's 430 cities with a population of more than one million inhabitants, compared with 22 out of 78 in 1950. Now China alone has 100 of these, despite its relatively low urban-rural ratio, and only four of the region's 16 countries have none (Brunei Darussalam, Mongolia, Laos and Timor-Leste). Southeast Asia now has 15 cities with more than five million inhabitants (and will have a further three by 2015), five with a population of more than 10 million. Two of these are in Japan (Tokyo and Osaka-Kobe), two in China (Beijing and Shanghai) and one in the Philippines (Manila). According to UN estimates (United Nations, 2008), Jakarta in Indonesia and Guangzhou in China will join their ranks by 2015. The population of Tokyo, by far the most densely populated urban agglomeration in the region, was over 35 million in 2005. While such large cities are, of course, places of innovation and of social and economic progress, most of them also face combined problems of unemployment, pollution, inadequate access to drinking water, poor housing, etc.

In a few rare countries in the region, these large cities concentrate a large proportion of the total population (Table 18). The city-state of Singapore apart, these are Japan, where one in three inhabitants currently lives in Tokyo (2005), and South Korea, where one in five inhabitants lives in Seoul. These two cities account for 42% and 25% of the country's total urban population respectively. Likewise, 50% of Cambodia's urban population lives in Phnom Penh. These proportions reveal a relatively "macrocephalic" situation, or a disproportion in the size of the largest city in relation to that of the country's other towns and cities, but not one that is excessive in relation to the rest of the developing world. In both Thailand and Myanmar, the weight of the largest cities is also considerable, since they are home to some 30% of the total urban population. Elsewhere the urban system is better balanced, especially in China where only 5% of the urban population lives in one of the two largest metropolises (3% in Beijing and 2% in Shanghai) and where the network of very large cities is well developed. Indeed, China has a further fifty cities with a population of over 750,000 in addition to the previously-mentioned 100 cities with a population of over one million. In Indonesia and Malaysia, less than 10% of the total urban population lives in the capital. Vietnam is the only country in the region with a clearly bicephalous urban system, with nearly half the urban population concentrated in Hanoi and in Ho Chi Minh City.

3. A gradual slowdown in urban growth

In relative terms, the strong demographic growth phase of large cities is now over, except in China (and in Cambodia but for different reasons, see above). Urbanization in China, previously held back by the government, has

soared under the present conditions of economic growth and transition to a market economy. Today, the fertility of urban populations is below replacement level, so urban growth is now exclusively due to rural exodus and the expansion of cities into the surrounding countryside (Hugo, 2003). As the data in Table 18 show, six of the eight largest Chinese cities had higher population growth between 1975-2000 than between 1950-1975. Elsewhere, the recent period has been characterized by a clear slowdown in urban growth compared with the preceding one. The United Nations estimates that this trend will continue in the years to come and that the largest cities of East and Southeast Asia should stabilize at current levels or only grow very slowly. The average annual urban growth rate should not exceed 1% in most of the cities in Table 18. China will also see a slowdown, even though the population in the largest cities will continue to grow faster than elsewhere. Three former Communist countries, Cambodia, Vietnam and Myanmar, still have considerable growth potential due to their relatively low urban-rural ratio, and they are the only countries in the region whose largest cities will maintain the growth rates of the past two to three decades in years to come.

The slower growth of large cities is part of an overall slowdown in urban growth due to declining natural increase and a gradual slowdown in migratory flows from the countryside to the cities. In nearly all the region's countries, the urban growth rate in 2000-2005 was weaker than in the 1970s (between 0.5% and 3% in 2000-2005 in most countries, compared with 3% to 5.5% between 1970 and 1975). Here too, the Communist countries are a notable exception. China, Cambodia, Vietnam, and Laos currently have higher urban growth rates than during the preceding period. Timor-Leste, which has a low urban-rural ratio and slow economic growth, is another exception, with an average growth rate which rose from 5% per year in 1970-1975 to 7% in 2000-2005. Nevertheless, in all countries, the largest cities are growing more slowly than urban areas as a whole. As a result, the share of large cities in the total urban population is tending to decrease in many countries of the region, though less rapidly than in other parts of the developing world. The share of the country's largest city in the urban population has fallen sharply in Vietnam, Indonesia, Malaysia, the Philippines and South Korea. It remains relatively stable in Japan, Thailand and Myanmar, and has risen significantly in North Korea and Cambodia. Although this trend is less clear in China because the inhabitants of Shanghai and Beijing represent a small proportion of the country's total urban population (4% for each in 1975, 3% and 2% respectively in 2005), it nonetheless concerns a considerable population mass (15 and 11 million inhabitants respectively in 2006).

XIV. International migration

International migration is a poorly documented demographic phenomenon in East and Southeast Asia, as in most other regions of the world, the most

developed countries excepted. The UN regularly publishes statistical information about the number of migrants for each country and each major world region and sub-region (the most recent being United Nations 2006b), but it is more difficult to obtain data on annual migration flows. Many Asian countries do not include the questions necessary for studies of international migration in their censuses, i.e. those concerning place of birth, nationality, former place of residence and/or the date of entry into the country. In addition, even where such information exists, the extent of migration flows may be considerably underestimated because of large-scale undocumented migration. We must therefore be cautious in our interpretation of available statistics.

Among the most frequently used indicators is the *migrant stock*, defined as the number of residents in a country who were born abroad.⁽⁶²⁾ The *proportion of migrants* is the migrant stock as a percentage of the country's total population. In addition, the UN regularly publishes estimates of *net migration rates*, expressed as the mean annual net migration (number of immigrants minus number of emigrants) over a given period divided by the average total population of the country or region. The most recent available data for each country in East and Southeast Asia are given in Appendix Table A.13.⁽⁶³⁾ For comparative purposes, the same indicators are given in Table 19 for the two sub-regions in this study, as well as for a few other major regions in the developing world. Appendix Table A.13 also includes the refugee population.

1. Highly variable migration flows

As the industrialized countries (US, Canada, Australia, New Zealand and, more recently, some European countries such as Germany) progressively opened up their borders after World War II, migratory flows from developing regions increased, especially during the 1960s and 1970s. South and Southeast Asia were no exception and currently have a negative net migration rate, which reflects the predominance of emigration over immigration. This massive outflow is relatively weak in comparison with other regions, however, despite a gradual increase in migratory flows during the past two to three decades (Hugo, 2005; Skeldon, 2006). The net migration rate stood at -0.3 per thousand in 2000-2005 (Table 19), on a par with South Asia and sub-Saharan Africa, versus -0.6 per thousand in the Arab World and the Middle East, and -2.5 per thousand in Latin America and in the Caribbean. Considering the population size of the region under study, the number of individuals concerned is modest. In 2005,

(62) Migrant stocks are mainly estimated on the basis of questions in national censuses about place of birth or, failing that, on nationality or the previous place of residence.

(63) There are frequent discrepancies between United Nations statistics on international migration and those from other sources such as official national statistics from the various countries, including those with a highly developed statistical apparatus, or other international bodies, such as the World Bank. These contradictions illustrate the difficulties in gathering reliable statistical data on this demographic phenomenon, hence the need for caution in their interpretation.

Table 19. International migration flows, refugees and displaced populations in several major regions

Region	Migrant stock in 2005 ^(a)		Net migration rate in 2000-2005 (% ^(b))	Number of refugees in 2005 ^(c)
	Total number	Share of the total population (%)		
East Asia	6,497,151	0.4	-0.2	303,068
Southeast Asia	5,664,116	1.0	-0.6	169,842
Whole region	12,161,267	0.6	-0.3	472,910
South Asia ^(a)	11,229,229	0.8	-0.3	1,196,077
Arab World and Middle East ^(d)	25,784,343	6.1	-0.6	6,008,480
Latin America and the Caribbean ^(d)	6,630,849	1.2	-2.5	35,877
Sub-Saharan Africa ^(d)	15,873,341	2.1	-0.3	2,750,427
World	190,633,564	3.0	0.0	13,471,181

^(a) Defined as the number of persons born outside the country of residence; ^(b) Defined as the annual number of immigrants minus the annual number of emigrants between 2000 and 2005 divided by the average total population of the country or region; ^(c) Person with refugee status as defined by the various international conventions in place (United Nations, 2006b); ^(d) Region defined as in Tabutin and Schoumaker, 2004 and 2005; Guzman et al., 2006; and Véron, 2008.
Source: United Nations (2006b) for the migrant stock; United Nations (2006a) for the migration rate.

the countries in the region counted just over 12 million migrants (20 million according to the World Bank, 2008), representing less than 1% of the total population, compared with more than 2% in Sub-Saharan Africa and more than 6% in the Arab World and the Middle East, the developing region with by far the largest number of foreign-born residents. However, even here the proportion of migrants is low compared with the levels observed in the Western countries: 25% in Australia and New Zealand, 13% in North American and 10% in Western Europe (United Nations, 2006b). The economic, social and demographic impact of international migration on the countries of East and Southeast Asia is amplified by the strong geographic concentration of flows. For instance, most of the 30-50 million first- and second-generation Chinese in the world come from just three provinces, Guangdong, Fujian and Zhejiang (Skeldon, 2000; IOM, 2003).

The regional indicators conceal very diverse sub-regional and national situations (Appendix Table A.13). In relative terms, international migration flows are far more intense in Southeast Asia than in East Asia: the percentage of individuals born outside their country of residence and the net emigration rate are three times higher in Southeast Asia than in East Asia. However, the actual number of migrants is similar, at 5.6 and 6.5 million respectively. If we consider the countries that make up these two sub-regions, the situations are more diverse in Southeast Asia. Here, almost as many countries have positive net migration rates as negative ones. Overall the rate varies from -4 per thousand

in Mongolia and Laos, to +20 per thousand in Timor-Leste, which is in a temporary transition period following its recent independence (2002). In Singapore, where the net migration rate is approximately 10 per thousand, the present situation is typical of a country with a long migration history, making it an exception in East and Southeast Asia. We shall return to Singapore in greater detail below.

The main sending countries of the region are the Philippines, mainland China (excluding Hong Kong and Macau), Laos and, to a lesser extent, Indonesia, Myanmar and Vietnam, while the main Asian receiving countries include Japan, Singapore and Brunei Darussalam. The last two are among the countries in the world with the largest proportion of foreign-born residents (43% for Singapore and 33% for Brunei Darussalam, see Appendix Table A.13). Hong Kong and Macau are also major beneficiaries of Asian immigration but they will not be treated separately from China in this study. Malaysia and Thailand have significant emigration and immigration flows (Hugo, 2005).

However, the situation at a moment in time does not capture the dynamics of Asian migration. Most countries in the region are currently in a transition phase. In the past, East and Southeast Asian countries were the source of intense migration outflows to Western countries, and more recently, to the Middle East. Today, however, as they develop economically and their demand for unskilled labour increases, they are in turn becoming a major destination for migrants from poorer countries. Thailand is a good example of this phenomenon. In the 1980s, large numbers of Thai emigrants headed to the oil-rich nations of the Middle East, and later, in the early 1990s, to the most dynamic Asian development areas such as Malaysia, Japan and Singapore. After 1995, however, the annual number of departures declined rapidly, despite the efforts of the Thai government to curb the trend. This change in migratory behaviour can be attributed to the increase in average per capita income and higher educational levels which have led to greater social mobility in Thailand. In addition, the dramatic fertility decline has lowered the incentive to depart by reducing pressures on resources, notably at individual and family level, and by increasing demand for labour to the benefit not only of local populations, but also of neighbouring countries such as Myanmar, Cambodia and especially Laos (Martin and Zürcher, 2008; Skeldon, 2006).

These situations, which differ from one country to another, are the result of political and economic changes, sometimes quite turbulent ones. The nature and causes of these migratory movements are diverse, therefore and take a variety of forms: temporary or permanent, spontaneous or forced, documented or undocumented. They have also varied considerably over time. For instance, the flow of refugees from Asia during the major political upheavals of the 1970s and 1980s (especially the two million Vietnamese who emigrated in the course of those two decades), has gradually dried up, as can be seen from the statistics of the United Nations High Commission for Refugees (UNHCR) presented in Appendix Table A.13. Today, only Timor-Leste and Myanmar are still concerned

by this kind of flow, with a large number of displaced persons even within their own borders (currently almost 240,000 persons in Myanmar, and more than 100,000 in Timor-Leste in 2006⁽⁶⁴⁾), and with refugees fleeing to neighbouring countries, particularly China, Thailand and Malaysia. Without going into detail about these complex, and often poorly documented, migratory flows, we will next examine the destinations of migrants from East and Southeast Asia, and two case studies will follow as illustrations. The first is Singapore, where the share of immigrants in the population is among the highest in the world. The second is the Philippines, the country in the region with the largest proportion of emigrants. We will end with a discussion about the economic consequences of international migration on the sending countries.

2. Europe, North America, Oceania and Asia: an expanding range of destinations

The long tradition of emigration to Western countries continues in East and Southeast Asia. Table 20 shows, for a recent year (the last for which data are available), the number of immigrants from this region in the 15 Western countries for which we have detailed statistics. Approximately 10 million persons born in East or Southeast Asia currently live in these 15 countries, or just half the total number of emigrants from this region. Chinese migrants form the largest number, with nearly four million individuals. Next come Filipinos (2 million), Vietnamese (1.35 million) South Koreans (some 500,000), Japanese (460,000), Thais (335,000) Indonesians (325,000), Cambodians (230,000), Malays (220,000), Laotians (140,000), then Singaporeans (130,000). The other countries have fewer than 100,000 migrants each. The United States alone has received more than 60% of the total. Canada, with just over a million East and Southeast Asian migrants, and Australia, with just under a million, are also favoured destinations. Only 15% of East Asian and Southeast Asian migrants currently reside in the other countries, including European ones, for which we have data.

The data in this table do not give an accurate picture of migration flows from the region, however, as a growing proportion of migrants now head for other Asian countries which, unfortunately, do not have detailed migration statistics (Skeldon, 2000). For instance, in the better-known case of Japan, according to 2004 statistics from the Japanese Ministry of Justice,⁽⁶⁵⁾ more than 600,000 Koreans from both North and South Korea were living in the country (representing nearly one-third of the total immigrant population in Japan), along with 500,000 Chinese and 200,000 Filipinos, out of a total foreign population of some 2 million. Local legislation makes it particularly difficult

(64) Population movements resulting from political violence in 2006 do not appear in Appendix Table 13 because it contains data up to 2005 only, the last year for which statistics are available for all the countries in the region.

(65) The Japanese Ministry of Justice website <http://www.moj.go.jp/ENGLISH/IB/ib-01.html>, consulted on 23 June 2008.

Table 20. Immigrants from East and Southeast Asia in 15 Western countries, by receiving country and sending country (most recent year for which data are available)

Receiving country	Year	Sending country (Southeast Asia)										
		Brunei Darussalam	Cambodia	Indonesia	Laos	Malaysia	Myanmar	Philippines	Singapore	Thailand	Timor-Leste	Vietnam
Australia	2006	2,387	24,526	50,975	9,372	92,337	12,379	120,538	39,969	30,550	9,315	159,849
Austria	2001		610	849				8,881		2,607		2,376
Belgium	2004			954				3,405		2,444		928
Canada	2001	4,380	18,965	10,455	14,315	21,485	3,760	239,160	9,635	8,770		150,135
Denmark	2003	3	133	538	28	318	123	3,849	211	6,055		8,577
Finland	2002		116	176		246	96	896	82	2,407		3,020
France	1999		25,969	1,246	16,240	710	241	4,789	620	3,168		21,162
Germany	2002	40	886	12,295	1,039	3,755	709	23,496	1,282	45,457		87,207
Greece	2001		5	299	4	41	27	6,861	42	208		218
Italy	2003	2	131	1,280	70	280	157	65,575	168	3,001	1	1,146
Netherlands	2003	593	607	161,443	130	2,991	343	7,959	2,805	8,329		11,656
Norway	2002											11,500
Sweden	2001		333	1,684	378	1,015		5,740	492	11,185		11,216
United Kingdom	2001					49,886			40,474			
United States	2006		155,000	81,000	99,000	44,000	59,000	1,580,000	35,000	209,000		879,000
Known total		7,405	227,281	323,194	140,576	217,064	76,835	2,077,595	130,780	333,181	9,316	1,347,990

Table 20 (cont'd). Immigrants from East and Southeast Asia in 15 Western countries, by receiving country and sending country (most recent year for which data are available)

Receiving country	Year	Sending country (East Asia)					Other countries of the region	Whole region	Total number of migrants in the receiving country	Migrants from East and Southeast Asia as a percentage of total migrant population	Main sending country of migrants from East and Southeast Asia
		China*	North Korea	South Korea	Japan	Mongolia					
Australia	2006	304,775	59	52,760	30,777	244	940,812	4,416,037	21.3	China	
Austria	2001	8,254		1,446	1,957		26,980	1,003,399	2.7	Philippines	
Belgium	2004	6,883			3,958		18,572	860,287	2.2	China	
Canada	2001	663,050	110	82,745	26,255	130	1,253,350	5,647,125	22.2	China	
Denmark	2003	4,859	37	370	1,257	18	26,376	331,506	8.0	Vietnam	
Finland	2002	2,706		152	729		10,626	152,057	7.0	Vietnam	
France	1999	29,218		5,779	13,169	110	122,421	3,263,186	3.8	China	
Germany	2002	77,306	2,120	23,292	34,689	5,107	318,680	7,335,592	4.3	Vietnam	
Greece	2001	740	351	10	1,086	6	9,898	797,091	1.2	Philippines	
Italy	2003	64,843	82	3,388	7,124	49	147,297	1,503,286	9.8	Philippines	
Netherlands	2003	41,275	24	5,675	6,035	391	250,256	1,714,155	14.6	Indonesia	
Norway	2002	4,159		6,228			28,333	315,160	9.0	Vietnam	
Sweden	2001	10,190		932	2,308		45,473	1,027,974	4.4	Vietnam	
United Kingdom	2001	148,989			37,535		398,152	4,896,581	8.1	China	
United States	2006	2,472,000		304,000	295,000		6,212,000	35,662,000	17.4	China	
Known total		3,839,247	2,783	486,777	461,879	6,055	9,809,226	68,925,436	14.2	China	

* Including Hong Kong, Macau and Taiwan.

Note: The sending country is defined as the country of birth, except for Germany, Belgium, France, Greece and Italy, where it is defined by nationality. For the United Kingdom, available data are incomplete, hence the additional column "other countries of the region", i.e. all countries other than Malaysia, Singapore, China and Japan.

Source: Statistics available from the Migration Policy Institute through the Migration Information Source project (www.migrationinformation.org, data downloaded on 20 June 2008).

for migrants to integrate economically and culturally. For instance, children of immigrants born in Japan cannot obtain Japanese nationality and face numerous obstacles in obtaining a decent education. They are not even required to attend school, unlike the children of Japanese citizens (Haines et al., 2007). The Japanese government has also introduced an original measure to protect the country's cultural uniformity and to resist multi-culturalism while satisfying its economic requirements for foreign labour: the active recruitment of descendents of former Japanese emigrants to Latin America. Some 240,000 Latin American immigrants of Japanese origin were counted in the country's latest population census in 2005 (Martin and Zürcher, 2008).

Emigration to the oil-producing nations of the Middle East is also considerable, especially to Saudi Arabia where, following the Thais in the 1980s, the Filipinos and Indonesians arrived in large numbers during the 1990s (World Bank, 2008). The vast majority of people who migrate within Asia remain in the host country for relatively short periods, since governments throughout the region discourage migrants from settling permanently. In most cases, they have work permits for two years at most and may not be accompanied by family members (Martin and Zürcher, 2008). Increasingly, government agencies in the receiving countries manage the recruitment of foreign workers. The migratory corridors most frequently used by the region's migrants are Philippines–US, China–US, Vietnam–US, Malaysia–Singapore, Indonesia–Malaysia and China–Singapore.

3. Singapore: a country built on immigration

Singapore, which became a British colony in 1819, was built on regional immigration. From the outset, the British authorities established a policy of free settlement, which largely profited the Chinese, the Indians and the Malays. Today their descendents represent respectively 77%, 14% and 8% of the country's total population (Yeoh, 2007). The four official national languages are English, Mandarin Chinese, Malay and Tamil. The population grew rapidly from a few hundred when the British colonists arrived, to 500,000 in the 1931 census. However immigration was controlled from the 1920s onwards and a series of restrictive laws were enforced. After independence in 1965, barriers to immigration were further strengthened but the extraordinary economic development of this tiny country led the government to implement a gradual and controlled opening of its borders. With an average annual economic growth rate of close to 13% in 1965-70, 9% in 1971-80, 7% in 1981-90, and 8% in 1991-2006, the demand for labour rapidly exceeded the available local supply (World Bank data⁽⁶⁶⁾). During the 1970s the economy generated 50,000 new jobs every

(66) Data from the World Bank website at:
<http://web.worldbank.org/WBSITE/EXTERNAL/DATASTATISTICS/0,,contentMDK:20398986~menuPK:64133163~pagePK:64133150~piPK:64133175~theSitePK:239419,00.html>,
 consulted on 24 June 2008.

year for only 30,000 Singaporean new entrants onto the labour market (Hui, 1997). To remedy this shortfall, bilateral inter-governmental agreements were signed with several countries in South Asia (India, Bangladesh and Sri Lanka) and Southeast Asia (the Philippines and Thailand).

The new migration policy was soon crowned with success, as shown by official demographic statistics. However, unlike policies during the first period of strong immigration up until the 1920s, the aim of recent policy has been to encourage short-term foreign workers (generally with two-year contracts) but to discourage permanent settlement. Thus statistics systematically distinguish between “residents” and “non-residents”. Non-residents include all migrants with non-permanent residence permits, essentially foreign workers on a temporary contract (which includes nearly all migrants) and foreign students. The census also distinguishes individuals with Singaporean nationality from other permanent residents, who have permanent residence permits and the same legal status as the country’s citizens, but do not have the right to vote.

In 1970, non-residents represented less than 3% of Singapore’s total population (which stood at 2 million at the time). In the following decades, this proportion grew rapidly and almost doubled every ten years (2.9% in 1970, 5.5% in 1980, 10.3% in 1990 and 18.8% in 2000). The ethnic composition, traditionally Malay and Chinese, has gradually diversified and the percentage of Filipinos and Indonesians in particular, has increased sharply. Alongside non-residents, if we add the permanent residents born outside of Singapore, three-quarters of whom are of Chinese origin, the proportion of persons born outside the country rose from 9-10% in 1970-1980 to 14% in 1990, and reached 26% in 2000 (Yeoh, 2007). During this last decade, the non-resident population has risen five times faster than the resident population, at an average annual rate of 9.2% versus 1.8%. Among the resident population, the number of permanent residents rose still faster relative to Singapore citizens, at 10% per year on average during 1990-2000 versus 1.3%. Today, one inhabitant in four was born outside of Singapore, out of a total population of only 4.02 million in the last census (June 2000). Foreign workers represent 30% of the country’s total workforce. They are concentrated in the least qualified sectors, however, especially the building sector and personal services (Yeoh, 2007). More than 80% of temporary jobs in the building sector are held by foreigners, mostly Thais (Hui, 1997). A large proportion of domestic workers, mainly women, are Indonesian migrants.

With the economic restructuring of the 1990s, based on the rapid delocalization of production to other Asian countries, the proportion of skilled workers continued to rise and demand for foreign labour shifted towards the services sector (banking and financial services in particular). The Singapore government actively pursued a two-speed policy that discouraged the permanent settlement of poorly-qualified migrants and favoured the integration of more highly qualified foreigners. The eligibility criteria for permanent residence include a minimum annual income equal to about 65% of the average per capita

income, a secondary level education or above and a minimum of five years' work experience (Hui, 1997). The same criteria apply for family reunification. Conversely, it is very difficult for unqualified migrants, even those with a work contract or who are married to a Singapore citizen, to obtain permanent residency. Moreover, foreign women applying to immigrate to Singapore must take a pregnancy test to prove that they are not expecting a child, and women who become pregnant during their stay are forced to leave the country (Martin and Zürcher, 2008).

4. The Philippines: institutionalized emigration

The Philippines is, in relative terms, the leading provider of Asian foreign workers. The government estimates that more than 8 million of its citizens live abroad, out of a total population of 83 million (Martin and Zürcher, 2008), and more than one million persons leave the country to work abroad every year. Moreover, emigration flows are increasingly steadily, so this figure is set to rise in the future. The Filipino people have a real emigration culture (Asis, 2006) sustained by the institutionalization of migratory flows by the Philippine government which has played a dominant role over the past 20 years in organizing emigration to some 200 countries in the world, principally to the United States.

Emigration to the United States is a long-standing phenomenon resulting from the special ties between the two countries (Asis, 2006; Grieco, 2003). Migratory flows from the Philippines, an American colony from 1898 to 1946, began in the early years of the twentieth century, first to Hawaii, where labour was needed on the sugar cane and pineapple plantations that were developing rapidly at the time, then to California and, to a lesser extent, to the other states on the West Coast. More than 150,000 Filipinos emigrated to the United States between 1906 and 1930. The flow was interrupted in 1934 when the Philippine Independence Act was signed. It modified the immigrant status of the Filipinos, who were subsequently subject to the same (restrictive) legislation as nationals from other countries. The flow picked up again when the United States reopened its borders in 1965. Nevertheless, during this period the destination countries began to diversify as other Western countries such as Canada, Australia and New Zealand, with high levels of long-term immigration, launched similar open-door policies. The Filipinos' knowledge of English, still one of the country's two official languages along with Tagalog, doubtless helped their integration into the international labour market. The Philippines soon became one of the leading providers of immigrants to the English-speaking countries as well as to other destinations (Asis, 2006). In the 1970s, the economic slowdown resulted in a fall in per capita income, an increase in unemployment and a balance of payments deficit resulting from the consequences of the oil crisis, which combined to boost the emigrant flow. These incentives to depart coincided with a growing demand for unskilled labour in the countries of the Persian Gulf.

The government of Ferdinand Marcos seized this opportunity and in 1974 set up an official programme for overseas employment by signing bilateral agreements with numerous foreign governments, particularly in the Middle East. This programme aimed to promote employment for Filipino workers abroad and continues to this day under the management of the Philippines Overseas Employment Administration. Its original mission was to recruit Filipino workers to send abroad, but now the Administration serves as a supervisory body for the 1,300 or so private and semi-private agencies in the country who manage recruitment (Yang, 2004). All the contracts signed between foreign employers and Filipino employees through these agencies are subject to Philippine legislation and a special law applies to them. The Philippines government also takes care of its workers abroad, to ensure decent working conditions and respect for their rights, but also to make sure that they return at the end of their contracts (usually two years but frequently renewed). This new type of migration contrasts with the permanent nature of movements prior to the mid-twentieth century. Contracts and related work permits are short-term, and the migrants cannot be accompanied by close family members such as wives and children (Yang, 2004).

The official programme to encourage people to work abroad met with considerable success and shows no sign of abating 30 years later (Figure 29). The number of workers grew from some 35,000 in 1975 to more than 200,000 in 1980, nearly 500,000 in 1990, and exceeded one million in 2005. In 2006 the leading destinations were Saudi Arabia, the United Arab Emirates, Hong Kong, Kuwait, Qatar, Singapore, Italy, the United Kingdom and South Korea (Philippines Overseas Employment Administration, 2007). This ranking demonstrates the gradual change in receiving countries over time. Whereas before the mid-1970s the high-immigration industrialized countries (North America, Australia and New Zealand) were by far the most popular destinations for Filipino migrant workers, these were replaced in the 1970s and 1980s by the oil-producing nations of the Middle East. In 1980, 85% of Filipino emigrant workers went to these countries but soon several other Asian countries, notably China (primarily Hong Kong), Singapore, South Korea and Malaysia began to compete. At the same time, the economic sectors employing Filipino migrant workers also changed. In the past, Filipinos worked in the agricultural sector, then in the industrial sector, and more recently in construction. They now work increasingly in the service sector, with one-third currently working in personal services (Philippines Overseas Employment Administration, 2007). Moreover, the emigrant labour force has gradually become feminized and from 1992 onwards more than half the workers who officially left the country to work abroad were women, a trend also observed in some other countries of the region such as Indonesia (Asis, 2006; IOM, 2003).

This emigration not only helps to relieve pressure on the domestic labour market, which until recently remained taut, but also generates a vital source of income for many families. Remittances sent home by Filipino migrants are

estimated at more than one billion USD per month and represent nearly 15% of the Philippines' GDP (Martin and Zürcher, 2008). Remittances benefit nearly one Filipino household in five and represent one quarter of their income. Their economic impact on the least-favoured segment of the population is thus considerable (O'Neil, 2004). The USD 15 billion or more sent to the Philippines each year by emigrant workers is the world's fifth largest volume of funds transferred in this way (after China, notably) despite the relatively modest size of the total population.

Figure 29. Numbers of Filipino emigrant workers, 1975-2006



Source: Asis, 2006 for 1975-2004; Philippines Overseas Employment Administration, 2007, for 2005 and 2006.

5. The economic consequences of migration

Of the numerous economic, social, political and demographic consequences of migratory movements in Asia, the volume of remittances sent by migrants to their native communities is the best documented. Table 21 gives a statistical series of data from the World Bank for the period 1980-2007 which shows the rapid increase in remittances to the countries considered here. The Chinese, Filipino and, to a lesser extent, Indonesian and Vietnamese diasporas account for the largest remittances to the countries of this region in absolute terms. The amount of the remittances to the Philippines is spectacular in comparison to national resources, totalling more than USD 15 billion, or nearly half the state budget (Martin and Zürcher, 2008). Remittances by Vietnamese immigrant workers are also considerable in relation to national resources. Moreover the

speed with which the volume of remittances has grown since the turn of this century is impressive: between 2000 and 2007 remittances sent back to China and Indonesia by international migrants increased four-fold, and more than doubled to the Philippines (Table 21). Research suggests that migrants' remittances are often invested productively, for instance to finance the education of young people who have stayed behind or to set up a family business. Even when the money is used for non-productive ends, the spending boosts local industries and trade (Skeldon, 2000; Martin and Zürcher, 2008). Another form of financial transfer takes the form of investment in their native country by persons of Asian origin who have settled permanently abroad. For instance, some 80% of foreign investment in Chinese companies comes from the Chinese diaspora (Skeldon, 2000).

Table 21. Remittances sent by East and Southeast Asian emigrants to their native countries between 1980-2007 (in inflation-adjusted USD million)

Country	1980	1985	1990	1995	2000	2005	2007*
East Asia							
China	576	253	210	1,053	6,380	21,222	26,588
Japan	140	–	–	1,151	1,374	1,080	1,578
Mongolia	–	–	–	–	12	181	194
North Korea	–	–	–	–	–	–	–
South Korea	235	552	1,037	1,080	735	847	985
Southeast Asia							
Brunei Darussalam	–	–	–	–	–	–	–
Cambodia	–	–	–	12	121	200	322
Timor-Leste	–	–	–	–	–	–	–
Indonesia	–	61	166	651	1,190	5,419	6,000
Laos	–	4	11	22	1	1	1
Malaysia	41	39	325	716	981	1,281	1,700
Myanmar	–	–	6	81	104	131	125
Philippines	626	806	1,465	5,360	6,212	13,566	17,000
Singapore	–	–	–	–	–	–	–
Thailand	383	877	973	1,695	1,697	1,187	1,707
Vietnam	–	–	–	–	–	4,000	5,000

* Provisional figures.

Source: World Bank, <http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTDECPROSPECTS/>, consulted 18 June 2008.

XV. Access to education

As in the previous chronicles on sub-Saharan Africa (2004), the Arab World and the Middle East (2005), South America and the Caribbean (2006) and Central and South Asia (2007), we will end with a brief overview of the educational situation, without going into the vast issue of the relationship

between education and development, or that between training, employment and unemployment.

The vital role of education and human capital in the economic and social development of societies is universally acknowledged. In demography, among individual characteristics, the educational level of mothers and fathers is generally one of the most discriminating explanatory variables of behaviour in marriage, childbirth, health and, sometimes, migration. At the contextual level of countries, the development of education is frequently linked to the rate and type of demographic transition.

We shall examine illiteracy in the adult population in the countries of this region, and also look for a possible relation between the educational level in these countries and fertility or infant mortality. Appendix Table A.15 shows trends in adult illiteracy by sex and by country between 1980 and 2005.

1. Adult illiteracy

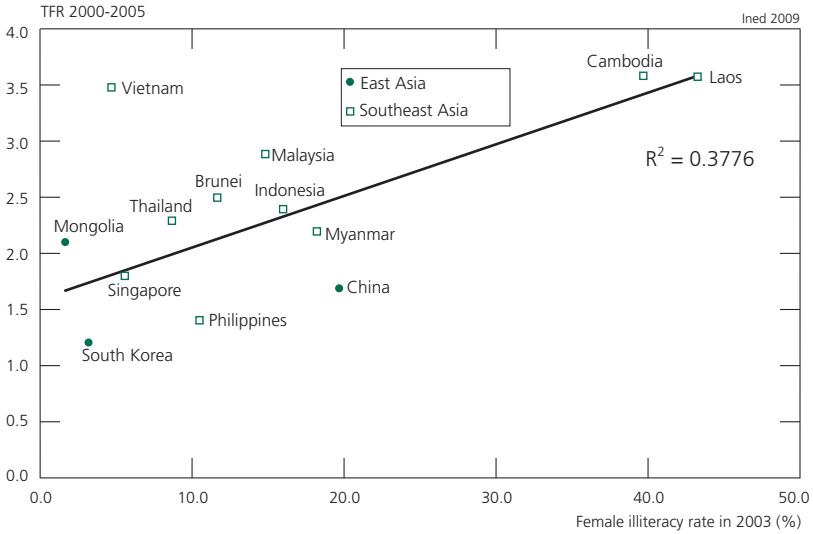
Thanks to considerable progress made over the past twenty years or so in most countries of the region, adult illiteracy is now relatively low overall. The illiteracy rate is below 15% in the region, with the notable exception of Cambodia and Laos, where approximately one adult in three remains illiterate. Illiteracy has been eradicated, or is in the process of being so, in Japan and South Korea, as well as in Mongolia, the Philippines and Thailand. Despite this achievement, which places these countries in a good position relative to most African countries, considerable discrepancies remain between the sexes. Illiteracy continues to concern women more than men, with a rate that varies by a factor of two (in Cambodia, Indonesia, Laos, Malaysia, Myanmar and Thailand) or even by a factor of three or more (in China, South Korea and Singapore). Nevertheless these discrepancies have on the whole remained stable or diminished in the past twenty years, with the exception of China where the male/female adult illiteracy ratio rose from 2.2 in 1980 to 3.0 in 2005 (Appendix Table A.15).

2. Relation with fertility and infant mortality

In international studies, the relation at a given moment between fertility or infant mortality and a country's educational level is traditionally negative and fairly good: overall, as the educational level of a country's population increases, so fertility and infant mortality in those countries declines. What was the situation in this region in the early 2000s?

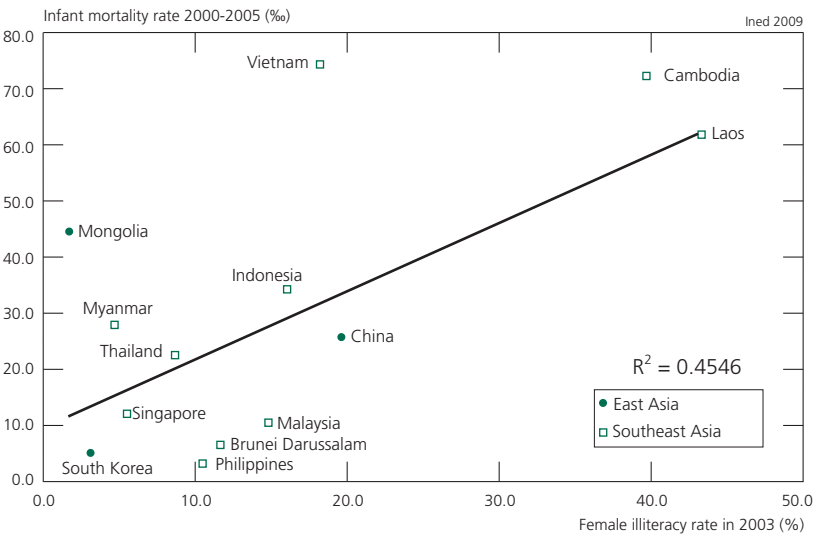
Calculated for 13 countries, the correlation between female fertility (TFR) and their level of illiteracy is positive (Figure 30), and similar to that usually found elsewhere, including in sub-Saharan Africa. In other words, at aggregate level, female education in this region, as elsewhere in the world, has a considerable impact on fertility, despite the broad range of situations. For instance, for a female illiteracy rate of less than 5%, fertility ranges from 1.2 children per

Figure 30. Correlation between fertility and female illiteracy, circa 2000



Source: Total fertility rate: United Nations, 2006a; Female illiteracy rate: data compiled by UNESCO and available on its website at <http://www.uis.unesco.org/en/stats/statistics/literacy2000.htm>

Figure 31. Correlation between the infant mortality rate and female illiteracy, circa 2000



Source: Infant mortality rate: United Nations, 2006a; Female illiteracy rate: data compiled by UNESCO and available on its website at <http://www.uis.unesco.org/en/stats/statistics/literacy2000.htm>

woman in South Korea to 3.5 children per women in the Philippines. Conversely, fertility of around 3.5 children per women is associated with illiteracy rates that are both very high (in the case of Laos and Cambodia, where approximately 40% of women are still illiterate) and quite low (as in the Philippines, where one woman in 20 is still illiterate).

The correlation between infant mortality and female illiteracy is of course positive (Figure 31) and strong ($R^2=0.45$) without, however, being entirely linear. This demonstrates the important role of both male and female education in infant mortality, two variables which are systematically correlated, even in simple statistical analyses conducted at the aggregate level, such as the one presented here. Note that Myanmar and Mongolia still have very high mortality rates relative to their levels of female literacy.

Conclusion

With more than 30% of the world population, East and Southeast Asia play a key role in shaping the demography of our planet. Much of the current slowdown in world population growth is due to the demographic transition taking place in this region, as detailed in this chronicle. We have not sought here to address all the questions concerning the social, economic, environmental or political background to this transition. With the increasingly abundant statistical resources at our disposal, we have attempted to identify the major trends of the last half century, from the 1970s in particular, along with the diverse components making up the demographic profiles of the sixteen countries forming the sub-regions of East and Southeast Asia today. Our analysis has highlighted a number of interesting points.

Clearly, the second half of the twentieth century was characterized above all by a *rapid acceleration of population growth* which gave rise to extraordinary transformations across the whole of society. This acceleration was observed in all regions of the developing world, but was especially dramatic in East and Southeast Asia because of the large populations concerned. The region counted no more than 100 million inhabitants at the start of the Christian era, and it took more than 1,500 years for the population to double. But it took under 200 years to double again, and just 70 years to double for the third time. At that stage, i.e. towards the start of the period covered by our chronicle (1950), the region had around 850 million inhabitants, and it took only 35 years for that number to double yet again. Despite the *slower pace of population growth* observed from the mid-1970s, and the rapid deceleration that followed (with a mean annual growth rate of below 1% today), the population will continue to grow at least until the mid-twenty-first century, by which time East and Southeast Asia will count around 2.35 billion inhabitants. Although the exact date is uncertain, this figure will inevitably be reached within this century.

The population explosion of the 1950s to the 1970s was due in part to progress in *mortality reduction*, child mortality especially. A six-fold decrease

in infant mortality was achieved in the region between 1950-1955 and 2000-2005. Health inequalities have remained large, however, both between and within countries, with gender, level of education and place of residence all appearing to play a decisive role. The rapid mortality decline is nonetheless one of the major victories scored by the largest countries of East and Southeast Asia over the second half of the twentieth century. Yet it also created a new demographic challenge, that of controlling population growth. To address this challenge, a *historic transformation in reproductive behaviour* took place. In East and Southeast Asia especially, this took the form of a continuous and often authoritarian commitment on the part of governments to extremely active family planning programmes which have clearly met with considerable success. Note, however, that the region had long been characterized by a *diverse range of demographic regimes*. Over the last half-century, with the end of the demographic transition in Japan and, more recently, in South Korea and Singapore, the countries of the region cover the entire demographic spectrum. Changes have sometimes been rapid and dramatic, as in China, South Korea and Thailand, and sometimes much more progressive, leading to large disparities between countries. The region includes countries like Japan, which holds the world record for life expectancy at birth and where fertility is exceptionally low, alongside countries such as Cambodia, where life expectancy at birth ranks among the world's lowest, and Timor-Leste, where fertility is the world's highest.

Taking the region as a whole, however, *fertility*, which was still close to 6 children per woman in 1950, is *today below replacement level* and significantly lower than in other developing regions. It stood at 1.9 children per woman in 2005, versus 3.2 in the rest of the Asian continent, 2.5 in Latin America and the Caribbean, 3.1 in North Africa and 5.5 in sub-Saharan Africa. Such a result was made possible by a remarkable increase in contraceptive use, with a current prevalence of 75% in the region. This situation, which corresponds to the targets set by the governments of many East and Southeast Asian countries from the 1960s, is now leading to another demographic challenge, among the most important, if not *the* most important of the twenty-first century: the problem of *population ageing*. While in 2000, one person in ten was aged 60 or over, their proportion will increase to one in six by 2020 and to one in four by 2040. This trend, which is practically unavoidable given the low levels of fertility already reached and the steady decrease in old-age mortality, will call for major adjustments in the social and institutional structures of the countries in this region. For the moment, the *dependency ratio is low and still decreasing*, and hence very favourable. From 2010, however, it should start to rise, at a pace that will vary between countries according to the speed of their fertility decline.

Changes in the population structure will have economic consequences that may be offset, in part, by a *reorganization of migratory flows*. This process is already under way, as illustrated by the growing intensity of population

movements within the region resulting from major socioeconomic disparities between countries: East and Southeast Asia include some of the world's richest countries (Japan, South Korea, Singapore), but also some of the poorest (North Korea, Laos, Myanmar). While the ever-increasing flow of migrants serves to increase the labour supply in countries where demand for workers is high, major reforms of existing policies will doubtless become necessary in order to relax residency restrictions for foreign workers and their families, and to develop more active long-term integration measures.

To conclude, the eventual convergence of the demographic situation in this part of the world with that of the Western nations remains an open question. If current trends continue, the levels of fertility and mortality in East and Southeast Asia may well catch up with those of the developed world or, as is already the case in Japan, overtake them. The future will depend largely on the success of policies in the fields of reproductive behaviour, health and international migration. Room for manoeuvre is limited, however, and in the absence of any major catastrophe, the medium-term demographic situation will probably correspond quite closely to current projections. In the meantime, the region represents and will continue to represent a large share of humanity, and will play a key role in shaping the demographic future of the planet.

Acknowledgements. We would like to thank Dominique Tabutin for his careful re-reading of the draft of this article as well as for his valuable advice.

APPENDIX

The Population of Taiwan

From both geographical and cultural viewpoints, Taiwan is a territory of East and Southeast Asia. It fully deserves to be covered in this chronicle, alongside the other countries of the region. Its geopolitical status sets it apart, however. Should it (along with the Penghu islands) be considered as an independent territory called the Republic of China – the de facto situation, given that it is administered by an independent government – or as a province of the People’s Republic of China, in line with the claims of that country, which currently holds no power there? The status of Taiwan remains a sensitive geopolitical issue, and the country is not officially recognized by the United Nations or by the majority of countries across the world. The Taiwanese population is itself divided over the question of its independence with respect to the People’s Republic of China.

As it is not officially recognized by most international bodies, Taiwan is not included in the population database of the United Nations Population Division, upon which many of the analyses presented in this chronicle are based. For this reason, Taiwan is covered briefly in this separate appendix.

The demographic trends in Taiwan over the twentieth century are closely linked to the historical events of the period. Previously isolated and inhabited by indigenous peoples, the island of Taiwan was administered by the Chinese from the end of the seventeenth century. Its handover to Japanese rule after the Sino-Japanese war of 1895 was followed by an era of rapid population growth, with a rise from 2.6 million inhabitants at that time to 6.0 million in

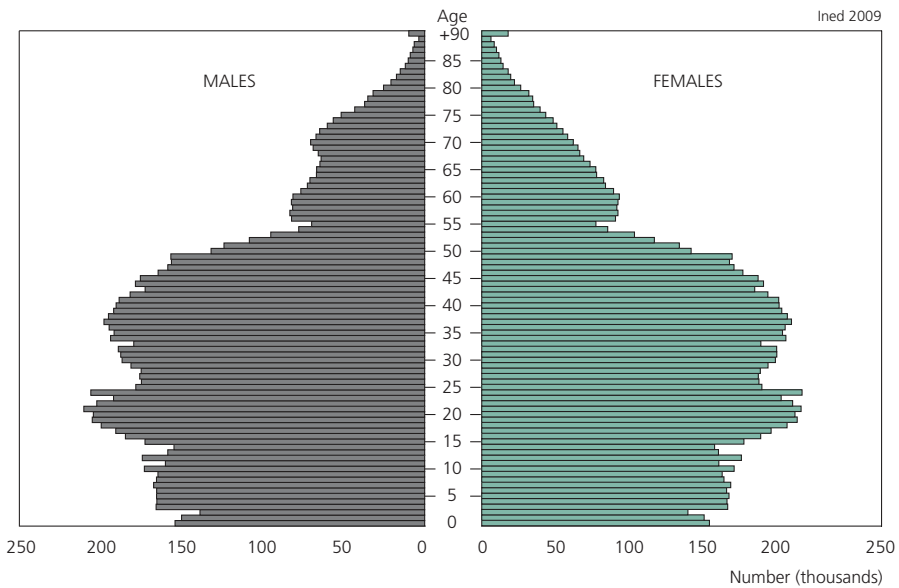
Table 1. Population trends in Taiwan, 1940-2008

	1940	1950	1970	1990	2000	2008 ^(a)
Population (thousands)	5,981	8,141	14,708	20,393	21,999	23,016
Males	n.d.	n.d.	n.d.	10,618	11,226	11,620
Females	n.d.	n.d.	n.d.	9,775	10,773	11,396
	1940-1950	1950-1970	1970-1990	1990-2000	2000-2008	
Mean annual growth rate (%)	+ 3.08	+ 2.96	+ 1.63	+ 0.76	+ 0.56	
<p>Sources: 1940-1970: Chang, 2005; 1990 and 2000: Corresponding censuses, National Statistics, Republic of China, at <http://eng.stat.gov.tw/lp.asp?ctNode=1629&CtUnit=779&BaseDSD=7> ; 2008: ^(a) end of October 2008 ; Source: National Statistics, Republic of China, at <http://eng.stat.gov.tw/point.asp?index=4>.</p>						

1940, i.e. a 2.3-fold increase in half a century. The population grew even faster over the following decades, which were marked by the island's return to Chinese rule after the Japanese defeat on the mainland, and then, in 1949, by Chiang Kai-shek's failure in the war against the Communists led by Mao Zedong, which forced the supporters of his nationalist party to take refuge in Taiwan. His flight was accompanied by a wave of immigrants from the newly created People's Republic of China.

Boosted by Chinese immigration from the mainland and high fertility rates, the Taiwanese population grew by around 3% per year between 1940 and 1970 (Table 1), resulting in a 2.5-fold increase. Since then, and in recent years especially, population growth in Taiwan has slowed down dramatically, from 1.6% per year on average between 1970 and 1990 to a very low level of less than 0.6% per year between 2000 and 2008. This slowdown is due in part to negative net migration – notably resulting from a brain drain of students who leave Taiwan to study abroad but rarely return home afterwards (O'Neil, 2003) – even though the number of immigrants is increasing steadily (almost 340,000 in 2000⁽⁶⁷⁾). Taiwan is indeed benefiting from the intensification of regional migratory flows, and 86% of its foreign-born inhabitants come from

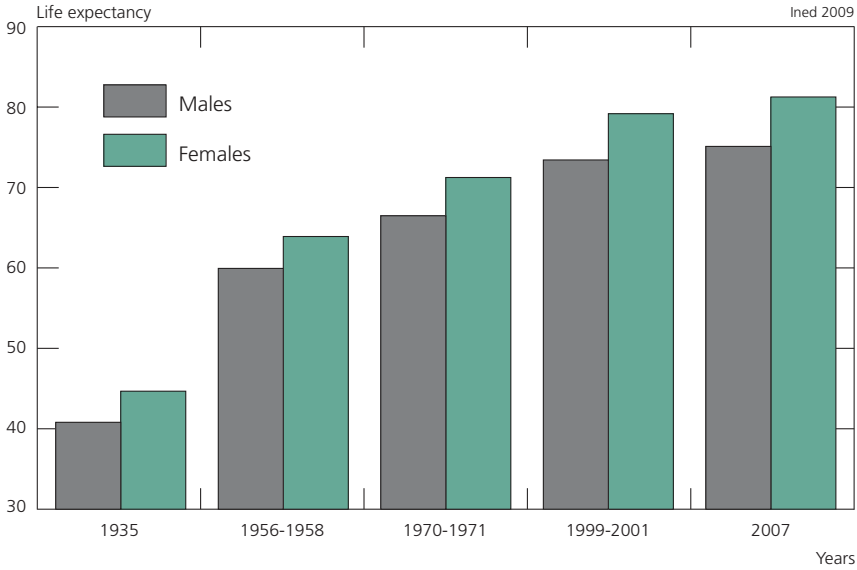
Figure A.1. Age-sex structure of the Taiwanese population in 2000



Source: National Statistics, Republic of China,
at <http://eng.stat.gov.tw/ct.asp?xItem8465&CtNode=1629>

(67) World migration information sheet for Taiwan, Migration Information Source, Migration Policy Institute, at <http://www.migrationinformation.org/datahub/countrydata.cfm?ID=564>, consulted 22 December 2008.

Figure A.2. Male and female life expectancy at birth, 1935-2007



Source: 1935: Liu Shi-Yung (2004); 1956-2007: Ministry of Interior, at <<http://sowf.moi.gov.tw/stat/english/elife/inface3.htm>>.

countries in the region (Thailand and the Philippines in the majority of cases).⁽⁶⁸⁾ As elsewhere in East and Southeast Asia, immigrants belong to the most disadvantaged social categories and their legal status is very insecure. On the basis of current trends, the population of Taiwan should level off at just under 24 million in around 2027, before starting to decline. It is forecast to fall to 20.4 million by 2056, three million fewer than today.⁽⁶⁹⁾

These changes have produced a radical transformation in the age structure of the Taiwanese population, which has entered a phase of rapid ageing. In the space of just thirty years (1978-2007), the median age of the population has risen from 22.2 to 35.8 years. Over the same period, the proportion of over-65s has risen from 4% to 10% while the number of under-15s has dropped by almost half, from 33% in 1978 to just 18% in 2007. This population ageing process will speed up further in the next half century. By 2056, the over-65s are forecast to represent more than one-third of the total population (38%), while the proportion of under-15 will fall to just 10%.⁽⁷⁰⁾

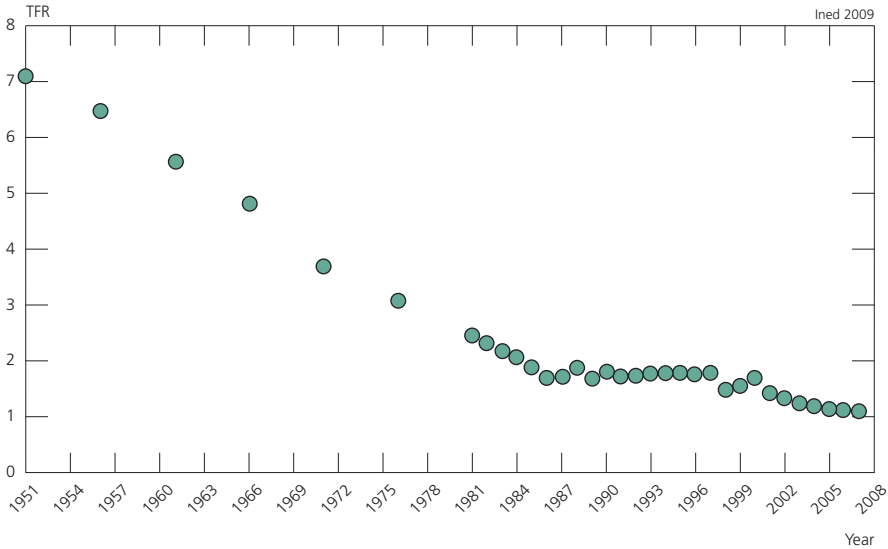
The rapid rise in life expectancy at birth, now close to that of the most developed countries, is a key feature of Taiwanese demography over recent

(68) Ibid.

(69) National Statistics, Republic of China, at <http://eng.stat.gov.tw/lp.asp?ctNode=2265&CtUnit=1072&BaseDSD=36>

(70) National Statistics, Republic of China, at <http://eng.stat.gov.tw/lp.asp?ctNode=2265&CtUnit=1072&BaseDSD=36>

Figure A.3. Fertility in Taiwan, 1951-2008



Sources: Taiwan Ministry of Interior, Department of Statistics, at <<http://www.moi.gov.tw/stat/english/year.asp>>, consulted 14 December 2008.

decades (Figure A.3). Between 1985 and 2007, mean length of life increased by 15.8 years for men and 18.5 years for women, representing an annual gain of 0.5 and 0.6 years, respectively. It currently stands at 78.6 years, 6 years more than in mainland China.

The fertility of Taiwanese women is now very low, with a total fertility rate of only 1.1 children per woman in 2006, which is below that of the most developed countries of the region such as Japan (1.3 children per woman in 2000-2005), South Korea (1.2) or Singapore (1.4).⁽⁷¹⁾ The largest decline occurred in the 1960s and 1970s, when the Taiwanese government introduced wide-ranging measures to curb population growth. These measures were highly successful, and Taiwanese fertility fell from more than 7 children per woman in 1951 to below replacement level by the mid-1980s. A large increase in mean age at first marriage, which rose from 27 to 33 years for men and from 23 to 29 years for women between 1975 and 2006, a higher frequency of divorce – with 6.4% of the population aged 15 and over being divorced in 2007, versus just 0.9% thirty years previously – a rapid improvement in educational levels, among women especially, and widespread contraceptive use (a prevalence of 90% among women in 1998 compared with 28% in 1965) are clearly the factors underlying the lowest-low fertility level recorded in Taiwan today, among the lowest in the world.

(71) Taiwan, Government Information Office, Republic of China, at <<http://www.gio.gov.tw/ct.asp?xItem=35569&ctNode=4101>>, consulted 14 December 2008.

A new “population policy” was adopted in 1992 by the Taiwanese authorities to maintain population growth and delay the ageing process. It comprises a set of measures to promote family values and programmes to favour marriage, the goal being to stabilize fertility at replacement level over the long term (Barbieri, 2006; Chang, 2005). But no truly pro-natalist measures have been introduced and the two-child family is still encouraged. This probably explains why government policy has been unsuccessful in halting the fertility decline.



STATISTICAL APPENDIX

Table A.1. Censuses, national household demographic and social economic surveys, national fertility and health surveys from 1945 to 2008

Sub-region and country	Censuses	WFS, DHS and MICS surveys and other national surveys on fertility or maternal and child health	National household social economic surveys ⁽¹⁾	Other national surveys on demographic change	Other national surveys
East Asia					
China	1953, 1964, 1982, 1987, 1990, 1995 ^(a) , 2000, 2005 ^(a)	1982, 1988, 1992, 1997, 2001 ⁽²⁾ , 2006 Annually since 1991 ⁽³⁾	1980 ⁽⁴⁾ , 1981 ⁽⁴⁾ , 1982 ⁽⁴⁾ , 1983 ⁽⁴⁾ , 1984 ⁽⁴⁾ , 1985 ⁽⁴⁾ , 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1995-1997 ⁽⁵⁾ , 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003	Since 1987 ⁽⁶⁾	2002 ⁽⁷⁾
Japan	1950, 1955, 1960, 1965, 1975, 1980, 1985, 1990, 1995, 2000, 2005	1992, 1997			
Mongolia	1956, 1963, 1969, 1979, 1989, 2000	1998, 2000 ^(d) , 2003, 2005 ^(d)	1995 ⁽⁵⁾ , 1998 ⁽⁵⁾ , 1999, 2001 ⁽⁵⁾ , 2005 ⁽⁵⁾	1994	
North Korea	1993	1998 ^(d) , 2000 ^(d)			
South Korea	1949, 1955, 1960, 1966, 1970, 1975, 1980, 1985, 1990, 1995, 2000, 2005	1974 ^(b)			
Southeast Asia					
Brunei	1947, 1960, 1971,				
Darussalam	1981, 1991, 2001				
Cambodia	1962, 1998	1998 ^(c) , 2000 ^(c) , 2005 ^(c)	1993, 1996, 1997, 1999, 2003		
Indonesia	1961 ⁽⁸⁾ , 1971, 1980, 1990, 2000	1976 ^(b) , 1987 ^(c) , 1991 ^(c) , 1994 ^(c) , 1997 ^(c) , 2000 ^(d) ⁽⁹⁾ , 2002-03 ^(c) , 2007 ^(c)	1976, chaque année de 1979 à 2003, 1993 ⁽¹⁰⁾ , 1997 ⁽¹⁰⁾ , 1998 ⁽¹⁰⁾	1985 ⁽⁶⁾ , 1995 ⁽⁶⁾	
Laos	1985 ⁽⁸⁾ , 1995, 2005	1994-1995, 1996 ^(d) , 2000 ^(d) , 2006 ^(d)	1992-1993		2002 ⁽⁷⁾
Malaysia	1947 ⁽¹¹⁾ , 1951 ⁽¹²⁾ , 1957 ⁽¹³⁾ , 1960 ⁽¹⁴⁾ , 1970 ⁽¹⁵⁾ , 1980, 1991, 2000	1974 ^(b)	1976 ⁽¹⁶⁾ , 1988 ⁽¹⁶⁾		1999 ⁽¹⁷⁾ , 2002 ⁽⁷⁾
Myanmar	1973, 1983	1995 ^(d) , 1996 ^(c) , 1997, 2000 ^(d)		1992	2002 ⁽⁷⁾ , 1999 ⁽¹⁸⁾

Table A.1 (Cont'd). Censuses, national household demographic and social economic surveys, national fertility and health surveys from 1945 to 2008

Sub-region and country	Censuses	WFS, DHS and MICS surveys and other national surveys on fertility or maternal and child health	National household social economic surveys ⁽¹⁾	Other national surveys on demographic change	Other national surveys
Philippines	1948, 1960, 1970, 1975, 1980, 1990, 1995, 2000, 2007	1978 ^(b) , 1988 ^(c) , 1993 ^(c) , 1995, 1996 ^(d) , 1997, 1998 ^(c) , 1999 ^(d) , 2000, 2003 ^(c) , 2007 ^(d) ⁽¹⁹⁾			2002 ⁽⁷⁾
Singapore	1947, 1957, 1970, 1980, 1990, 2000		2005		
Timor-Leste	1961 ⁽⁸⁾ ⁽²⁰⁾ , 1971 ⁽²⁰⁾ , 1980 ⁽²⁰⁾ , 1990 ⁽²⁰⁾ , 2004	2003 ^(c) , 2002 ^(d)	2001 ⁽⁵⁾		
Thailand	1947, 1960, 1970, 1980, 1990, 2000	1975 ^(b) , 1987 ^(c) , 2005-2006 ^(d)	1957 ⁽¹⁾ , 1968 ⁽¹⁾ , 1973 ⁽¹⁾ , 1978 ⁽¹⁾ , 1983 ⁽¹⁾ , 1988 ⁽¹⁾ , 1990 ⁽¹⁾ , 1992 ⁽¹⁾ , 1994 ⁽¹⁾ , 1996 ⁽¹⁾ , 1998 ⁽¹⁾ , 2000 ⁽¹⁾	1989 ⁽⁶⁾ , 1995 ⁽⁶⁾	Every 2 years since 1992 ⁽¹⁷⁾
Vietnam	1960 ⁽²¹⁾ , 1974 ⁽²²⁾ , 1976 ⁽²²⁾ , 1979 ⁽¹⁵⁾ , 1989, 1999	1988 ^(c) , 1997 ^(c) , 2000 ^(d) , 2002 ^(c) , 2005 ^(c) , 2006 ^(d)	1992-93 ⁽⁵⁾ , 1994, 1996, 1997, 1997-98 ⁽⁵⁾ , 1999, 2002 ⁽⁵⁾ , 2004 ⁽⁵⁾ , 2006 ⁽⁵⁾	1994 ⁽⁶⁾	2002 ⁽⁷⁾

Notes on acronyms: WFS: World Fertility Survey (1975-1982); DHS: Demographic and Health Survey (since 1985); MICS: Multiple Indicator Cluster Survey (since 1995).

(a) sample based; (b) WFS; (c) DHS; (d) MICS.

(1) Household socioeconomic survey (similar to the survey of employment in France, with the addition of certain modules similar to those of the French Family survey).

(2) National survey on fertility and family planning.

(3) Annual sampled-based mother-and-child monitoring survey.

(4) Survey representative of rural areas only.

(5) LSMS (Living Standard Measurement Study) survey of the World Bank.

(6) National one percent sample survey on population.

(7) WHO World Health Survey.

(8) First national census.

(9) MICS questionnaire administered at the same time as the annual household social economic survey (SUSENA).

(10) Indonesia Family Life Survey.

(11) Malaysian peninsula and Sarawak only.

(12) Sabah only.

(13) Malaysian peninsula only.

(14) Sabah and Sarawak only.

(15) First census conducted after reunification.

(16) Malaysia Family Life Survey.

(17) National migration survey.

(18) National mortality survey.

(19) Non-representative survey at national level.

(20) Conducted by the Indonesian government.

(21) North Vietnam only.

(22) South Vietnam only.

Table A.2. Land area and densities in 2000-2005, and population from 1950 to 2050

Sub-region and country	Land area (thousand sq. km)		Density (inhab. per sq.km)		Population (in thousands)					
	Total (in 2005)	Arable land (in 2000)	Gross	Arable land	1950	1970	1990	2005	2025	2050
					1950	1970	1990	2005	2025	2050
East Asia	11,760	1,471	129	1,035	669,906	986,626	1,343,912	1,522,472	1,653,595	1,591,242
China	9,561	1,371	137	958	554,760	830,675	1,149,069	1,312,979	1,445,782	1,408,846
Japan	378	45	338	2,859	83,625	104,331	123,537	127,897	121,614	102,511
Mongolia	1,564	12	2	220	761	1,256	2,216	2,581	3,112	3,388
North Korea	121	26	196	908	9,737	14,247	20,143	23,616	25,228	24,666
South Korea	100	17	481	2,786	18,859	31,922	42,869	47,870	49,019	42,327
Southeast Asia	4,495	647	124	862	178,149	286,762	440,574	557,669	686,251	766,611
Brunei Darussalam	6	0	65	4,156	48	130	257	374	526	681
Cambodia	181	37	77	377	4,346	6,938	9,698	13,956	19,489	25,114
Indonesia	1,905	205	119	1,103	79,538	120,532	182,847	226,063	271,227	296,885
Laos	237	9	24	646	1,524	2,551	4,076	5,664	7,713	9,290
Malaysia	330	18	78	1,410	6,110	10,853	18,103	25,653	33,769	39,631
Myanmar	677	99	71	484	17,158	26,383	40,147	47,967	55,374	58,709
Philippines	300	57	282	1,497	19,996	36,551	61,226	84,566	115,878	140,466
Singapore	0.7	0	6,336	-	1,022	2,075	3,016	4,327	5,104	5,026
Thailand	513	159	123	397	20,607	37,247	54,291	63,003	68,803	67,376
Timor-Leste	15	2	72	565	433	604	740	1,067	2,011	3,462
Vietnam	332	62	256	1,371	27,367	42,898	66,173	85,029	106,357	119,971
Whole region	16,255	2,118	128	987	848,055	1,273,388	1,784,486	2,080,141	2,339,846	2,357,853

Sources: Population and gross densities: United Nations (2006a); Land areas: CIA, The World Factbook, 2001, at <http://www.worldfacts and figures.com/area-country.php>; Arable land: *FAO Statistical Yearbook, 2005-2006* on the website <http://www.fao.org/docrep/009/a0490m/a0490m00.htm>, consulted 30 January 2008; Population density per sq.km of arable land: authors' calculations based on data presented in previous columns.

Table A.3. Crude birth and death rates and rate of natural increase, 1950 to 2005

Sub-region ^(a) and country	Birth rate (‰)					Death rate (‰)					Mean annual rate of natural increase ^(b) (%)							
	1950- 1955	1960- 1965	1970- 1975	1980- 1985	1990- 1995	2000- 2005	1950- 1955	1960- 1965	1970- 1975	1980- 1985	1990- 1995	2000- 2005	1950- 1955	1960- 1965	1970- 1975	1980- 1985	1990- 1995	2000- 2005
	East Asia	40.8	35.5	27.7	20.2	17.4	13.1	22.6	15.7	6.4	7.5	7.0	6.8	1.8	2.0	2.1	1.3	1.0
China	43.8	38.0	28.6	20.9	18.2	13.6	25.1	17.1	6.3	7.7	7.1	6.6	1.9	2.1	2.2	1.3	1.1	0.7
Japan	23.7	17.2	19.9	12.9	9.7	9.0	9.4	7.3	6.5	6.1	7.0	8.0	1.4	1.0	1.3	0.7	0.3	0.1
Mongolia	43.7	43.3	41.5	37.6	29.1	19.7	21.7	17.0	13.1	10.0	8.9	6.9	2.2	2.6	2.8	2.8	2.0	1.3
North Korea	23.8	32.8	30.2	21.6	21.1	15.1	11.8	9.1	6.1	5.1	6.0	9.3	1.2	2.4	2.4	1.7	1.5	0.6
South Korea	37.0	39.1	29.0	21.1	15.9	10.4	16.9	12.5	8.3	6.5	5.6	5.4	2.0	2.7	2.1	1.5	1.0	0.5
Southeast Asia	44.2	43.9	38.2	32.0	26.0	21.3	23.4	18.7	14.1	10.2	7.8	6.7	2.1	2.5	2.4	2.2	1.8	1.5
Brunei Darussalam	48.9	43.0	35.1	30.4	28.2	23.6	11.6	9.0	5.9	4.1	3.2	2.8	3.7	3.4	2.9	2.6	2.5	2.1
Cambodia	45.4	44.9	39.9	52.2	41.0	27.5	23.8	20.4	22.5	15.6	11.6	10.0	2.2	2.5	1.7	3.7	2.9	1.8
Indonesia	42.7	44.0	39.1	31.8	24.3	20.7	26.1	21.7	15.9	11.3	8.2	6.6	1.7	2.2	2.3	2.1	1.6	1.4
Laos	49.2	44.9	44.3	43.0	41.4	28.4	22.0	19.9	18.2	16.1	11.9	8.0	2.7	2.5	2.6	2.7	3.0	2.0
Malaysia	45.2	43.2	34.7	32.6	27.8	22.7	19.9	13.3	8.8	6.2	5.0	4.5	2.5	3.0	2.6	2.6	2.3	1.8
Myanmar	47.4	41.7	39.1	31.4	25.3	19.5	27.8	19.9	14.4	11.1	10.3	10.2	2.0	2.2	2.5	2.0	1.5	0.9
Philippines	48.2	43.5	39.3	35.5	31.7	28.1	18.4	12.7	10.4	8.2	6.3	5.1	3.0	3.1	2.9	2.7	2.5	2.3
Singapore	44.4	34.0	21.2	16.7	17.9	10.1	10.6	7.1	5.2	5.4	4.9	4.9	3.4	2.7	1.6	1.1	1.3	0.5
Thailand	44.0	43.2	33.7	23.8	18.4	15.4	15.6	12.2	9.2	7.4	7.4	8.6	2.8	3.1	2.5	1.6	1.1	0.7
Timor-Leste	47.4	46.8	44.3	44.1	43.0	41.7	34.5	28.3	23.0	23.0	15.4	10.2	1.3	1.9	2.1	2.1	2.8	3.2
Vietnam	42.7	45.9	38.9	33.9	28.2	20.2	23.9	21.1	16.6	11.1	6.9	5.2	1.9	2.5	2.2	2.3	2.1	1.5
Whole region	41.5	37.3	30.1	22.9	19.6	15.2	22.8	16.4	8.1	8.1	7.2	6.8	1.9	2.1	2.2	1.5	1.2	0.8

^(a) The regional averages are weighted by the population size of each country.

^(b) The mean annual rates of natural increase were calculated from the crude birth and death rates and rounded to one decimal place.

Sources: United Nations (2006a).

Table A.4. Male and female mean age at first marriage

Country	Source	Year	Women	Men	Age difference
Brunei Darussalam	World Fertility Report, 2003	1971	22.4	26.3	3.9
	World Fertility Report, 2003	1991	25.1	27.3	2.2
Cambodia	Census	1962	21.3	24.4	3.1
	Census	1998	22.5	24.2	1.7
	Census	2004	22.8	24.6	1.8
China	Census	1982	22.4	25.1	2.7
	Census	1990	22.1	23.8	1.7
	Census	2000	23.3	25.1	1.8
Indonesia	Census	1971	19.3	23.8	4.5
	Census	1980	20.0	24.1	4.1
	Intercensal Population Survey	1985	21.1	24.8	3.7
	Census	1990	21.6	25.2	3.6
	Intercensal Population Survey	1995	22.2	25.8	3.6
	Census	2000	22.7	25.9	3.2
Japan	Census	1960	24.4	27.2	2.8
	Civil Registration System	1970	24.2	26.9	2.7
	Civil Registration System	1980	25.2	27.8	2.6
	Civil Registration System	1990	25.9	28.4	2.5
	Census	2000	28.6	30.8	2.2
Laos	World Marriage Patterns, 2000	1995	21.2	n.d.	n.d.
	World Fertility Report, 2003	2000	20.8	n.d.	n.d.
Malaysia	Census	1957	20.3	24.6	4.3
	Census	1970	22.1	25.6	3.5
	Census	1980	23.5	26.6	3.1
	Census	1991	24.7	28.2	3.5
	Census (2%)	2000	25.1	28.6	3.5
Mongolia	World Fertility Report, 2003	2000	23.7	25.7	2.0
Myanmar		1953	20.3	23.4	3.1
	World Fertility Report, 2003	1973	21.3	23.9	2.6
	World Fertility Report, 2003	1991	24.5	26.4	1.9
North Korea			n.d.	n.d.	n.d.

Table A.4 (cont'd). Male and female mean age at first marriage

Country	Source	Year	Women	Men	Age difference
Philippines	Census	1970	22.8	25.4	2.6
	Census	1980	22.4	n.d.	n.d.
	Census	1990	23.8	26.3	2.5
	DHS (estimation)	1993	23.4	n.d.	n.d.
	DHS (estimation)	1998	23.5	n.d.	n.d.
	DHS (estimation)	2003	23.2	n.d.	n.d.
Singapore	Sample Household Survey	1966	24.0	28.1	4.1
	Census	1970	24.2	27.8	3.6
	Census	1980	26.2	28.4	2.2
	Census	1990	27.0	29.9	2.9
	Census	2000	26.5	30.0	3.5
	General Household Survey	2005	26.9	30.1	3.2
South Korea	World Fertility Report, 2003	1970	23.3	n.d.	n.d.
	National Statistical Office	1991	24.9	28.0	3.1
	World Marriage Patterns, 2000	1995	26.1	29.3	3.2
	National Statistical Office	2001	26.8	29.6	2.8
Thailand	Census	1970	22.0	24.7	2.7
	Census	1980	22.8	24.9	2.1
	Census	1990	23.5	25.9	2.4
	Census	2000	24.0	27.2	3.2
Timor-Leste			n.d.	n.d.	n.d.
Vietnam	Census	1989	23.0	24.1	1.1
	Census	1999	22.8	25.4	2.6
	DHS (estimation)	2002	23.2	n.d.	n.d.
	DHS (estimation)	2005	22.8	n.d.	n.d.

Table A.5. Percentages of never-married women at different ages

Country	Source	Year	Percentage of never-married women						
			Age 15-19	Age 20-24	Age 25-29	Age 30-34	Age 35-39	Age 40-44	Age 45-49
Cambodia	DHS	2000	87.1	44.5	16.3	9.0	6.4	5.4	5.0
	DHS	2005	89.2	40.8	17.7	8.4	7.2	6.2	4.1
China	Census	1982	95.4	45.7	5.5	0.9	0.3	0.2	0.2
	Census	1990	95.3	41.4	4.3	0.6	0.3	0.2	0.2
	Census	2000	98.8	57.5	8.7	1.3	0.5	0.3	0.2
Indonesia	Census	1980	70.0	22.3	7.4	3.4	1.9	1.4	1.2
	DHS	1987	81.0	34.8	10.5	4.1	3.0	1.1	1.4
	DHS	1991	80.2	35.6	11.5	4.7	2.3	1.4	1.4
	DHS	1994	82.0	37.5	14.0	5.1	3.0	2.4	1.8
	DHS	1997	82.0	36.1	14.1	5.3	2.4	2.9	1.7
	DHS	2002/03	85.4	41.2	13.8	5.9	3.0	2.1	2.0
Japan	Census	1940	95.6	53.5	13.5	5.3	2.9	2.0	1.6
	Census	1960	98.6	68.3	21.7	9.4	5.4	3.1	2.1
	Census	1980	99.0	77.7	24.0	9.1	5.5	4.4	4.4
	Census	2000	99.1	88.1	54.0	26.4	13.9	8.6	6.3
	Census	2005	99.1	88.7	59.0	32.0	18.4	12.1	8.2
Malaysia	Census	1980	89.7	51.3	20.9	9.9	5.3	3.7	3.0
	Census	1991	92.4	60.2	25.9	12.4	7.8	5.7	3.8
Philippines	DHS	1993	92.2	54.6	25.1	12.2	6.7	5.3	6.3
	DHS	1998	91.5	56.3	25.0	11.5	7.5	7.4	6.6
	DHS	2003	90.6	48.7	20.8	10.8	6.9	5.5	4.5
Singapore	Census	2000	99.0	83.8	40.2	19.5	15.1	13.6	12.5
	General Household Survey	2005	99.4	86.5	46.3	22.1	15.0	14.3	13.3
South Korea	Census	1990	99.5	80.5	22.1	5.3	2.4	1.1	0.6
	Census	2000	99.3	89.1	40.1	10.7	4.3	2.6	1.7
Vietnam	DHS	1988	95.3	47.8	15.2	8.4	6.5	4.0	1.3
	DHS	1997	92.3	46.9	21.1	10.9	8.7	8.3	9.9
	DHS	2002	95.8	52.2	18.1	7.7	5.5	7.2	5.1

Table A.6. Total fertility rate and net reproduction rate, 1950 to 2015

Sub-region ^(a) and country	Total fertility rate ^(b)						Net reproduction rate ^(c)							
	1950- 1955	1960- 1965	1970- 1975	1980- 1985	1990- 1995	2000- 2005	2010- 2015	1950- 1955	1960- 1965	1970- 1975	1980- 1985	1990- 1995	2000- 2005	2010- 2015
East Asia	5.7	5.1	4.5	2.5	1.9	1.7	1.7	1.8	1.9	1.9	1.1	0.8	0.7	0.8
China	6.2	5.7	4.9	2.6	1.9	1.7	1.7	1.9	2.1	2.0	1.1	0.9	0.8	0.8
Japan	2.8	2.0	2.1	1.8	1.5	1.3	1.3	1.2	0.9	1.0	0.9	0.7	0.6	0.6
Mongolia	6.0	6.0	7.3	5.7	3.4	2.1	1.9	1.9	2.1	2.8	2.4	1.5	0.9	0.9
North Korea	2.7	3.4	3.7	2.9	2.4	1.9	1.9	1.0	1.4	1.7	1.4	1.1	0.9	0.8
South Korea	5.4	5.6	4.3	2.2	1.7	1.2	1.2	1.8	2.1	1.7	1.1	0.8	0.6	0.6
Southeast Asia	6.0	6.2	5.6	4.2	3.1	2.5	2.3	1.8	2.1	2.1	1.7	1.4	1.2	1.1
Brunei Darussalam	7.0	6.7	5.4	3.8	3.1	2.5	2.3	2.9	2.9	2.6	1.8	1.5	1.2	1.1
Cambodia	6.3	6.3	5.5	6.6	5.5	3.6	3.2	1.9	2.0	1.7	2.4	2.2	1.5	1.3
Indonesia	5.5	5.6	5.3	4.1	2.9	2.4	2.2	1.6	1.8	1.9	1.7	1.3	1.1	1.0
Laos	6.4	6.4	6.4	6.4	5.9	3.6	3.2	2.0	2.1	2.2	2.3	2.3	1.5	1.4
Malaysia	6.8	6.7	5.2	4.2	3.5	2.9	2.6	2.4	2.6	2.2	1.9	1.6	1.4	1.2
Myanmar	6.0	6.1	5.9	4.3	3.1	2.2	2.1	1.6	2.0	2.2	1.7	1.3	0.9	0.9
Philippines	7.3	6.9	6.0	5.0	4.1	3.5	3.2	2.5	2.7	2.4	2.1	1.9	1.7	1.5
Singapore	6.4	4.9	2.6	1.7	1.8	1.4	1.3	2.7	2.2	1.2	0.8	0.8	0.7	0.6
Timor-Leste	6.4	6.4	6.2	5.4	5.7	7.0	6.5	1.5	1.7	1.9	1.7	2.0	2.8	2.7
Thailand	6.4	6.4	5.0	2.9	2.0	1.8	1.9	2.3	2.5	2.1	1.3	0.9	0.9	0.9
Vietnam	5.7	7.2	6.7	4.5	3.3	2.3	2.1	1.7	2.4	2.4	1.8	1.5	1.1	1.0
Whole region	5.7	5.4	4.7	2.9	2.2	1.9	1.9	1.8	2.0	1.9	1.2	1.0	0.8	0.8

^(a) The regional averages are weighted by the population size of each country.

^(b) Sum of age-specific fertility rates observed over a given period. The TFR can be interpreted as the average number of children that a woman would bear throughout her reproductive life if she were to experience the fertility rates of the period at each age. It does not take mortality into account.

^(c) Average number of daughters that a woman would bear throughout her reproductive life if she were to experience the fertility and mortality rates of the period at each age.

Source: United Nations (2006a).

Table A.7. Most recent indices of level, timing and characteristics of fertility

Country and source	Median age of women at first birth	Median age of women at first sexual intercourse	Mean duration of breastfeeding (months)	Median duration of postpartum amenorrhoea (months)	Median duration of postpartum abstinence (months)	Percentage of women who have never had an abortion	Percentage of women who have had 3 or more abortions	Median interval between last two births (months)	Percentage of women aged 15-19 who are pregnant or have one or more children
Cambodia	DHS 2000	19.9	24.0	9.0	3.0	95.0	0.9	34.1	8.2
	DHS 2005	22.0	21.6	9.3	3.4	92.1	1.7	36.8	7.8
Indonesia	DHS 1991	20.1	23.0	7.3	2.6	n.d.	n.d.	38.2	12.2
	DHS 2002/03	21.0	22.1	3.8	2.2	n.d.	n.d.	54.2	10.4
Philippines	DHS 1993	22.8	13.7	5.5	2.3	n.d.	n.d.	28.1	6.5
	DHS 2003	23.2	14.1	4.6	2.5	n.d.	n.d.	30.5	8.0
Vietnam	DHS 1997	23.1	18.4	8.8	3.3	93.2	n.d.	35.6	5.7
	DHS 2002	22.7	19.0	7.5	3.9	n.d.	n.d.	46.9	3.4

Table A.8. Contraceptive prevalence by method (percentage of women of reproductive age)

Country and source	Modern methods						Traditional methods				All methods	
	Pill	IUD	Female sterilization	Male sterilization	Condom	Other modern methods	All modern methods	Periodic abstinence	Withdrawal	Other traditional methods		All traditional methods
Cambodia	DHS 1995	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	12.5
	DHS 2000	7.2	1.3	1.5	n.d.	0.9	7.6	18.5	2.7	2.3	0.4	23.8
	DHS 2005	12.6	1.8	1.7	0.1	2.9	8.2	27.2	4.5	8.3	0.1	40.0
China	1982	5.9	34.9	17.7	6.9	1.4	3.0	69.7	n.d.	n.d.	n.d.	69.7
	2001	1.8	39.6	33.1	6.9	4.4	1.0	86.9	n.d.	n.d.	n.d.	86.9
Indonesia	DHS 1987	16.1	13.2	3.1	0.2	1.6	0.4	44.0	1.2	1.3	1.2	47.7
	DHS 2002/03	13.2	6.2	3.7	0.4	0.9	32.2	56.7	1.6	1.5	0.5	60.3
Japan	1987	0.9	3.0	3.7	1.1	46.9	0.3	n.d.	8.7	9.8	n.d.	63.5
	1997	0.7	1.6	2.3	0.8	44.3	0.7	n.d.	5.1	12.1	n.d.	58.9
Laos	2000	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	29.4	n.d.	n.d.	n.d.	32.2
Mongolia	2000	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	57.7	n.d.	n.d.	n.d.	67.4
Myanmar	1992	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	16.8
	2001	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	33.1	n.d.	n.d.	n.d.	37.0
North Korea	2002	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	64.2	n.d.	n.d.	n.d.	68.6
Philippines	DHS 1993	8.5	3.0	11.9	0.4	1.0	0.1	24.9	7.3	7.4	0.4	40.0
	DHS 2003	13.2	4.1	10.5	0.1	1.9	3.5	33.4	6.7	8.2	0.6	48.9

Table A.8 (cont'd). Contraceptive prevalence by method (percentage of women of reproductive age)

Country and source	Modern methods						Traditional methods				All methods	
	Pill	IUD	Female sterilization	Male sterilization	Condom	Other	All modern methods	Periodic abstinence	Withdrawal	Other traditional methods		All traditional methods
Singapore	22.0	3.0	11.0	n.d.	17.0	7.0	60.0	n.d.	n.d.	n.d.	n.d.	60.0
1982	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	74.2
1997	10.0	5.0	16.0	n.d.	22.0	2.0	55.0	n.d.	n.d.	n.d.	7.0	62.0
South Korea	7.8	7.8	4.1	10.5	6.3	11.3	44.2	n.d.	n.d.	n.d.	n.d.	44.2
1997	1.8	1.8	24.1	13.2	15.1	13.6	69.6	n.d.	n.d.	n.d.	10.9	80.5
Thailand	18.6	6.9	22.8	5.7	1.1	8.5	63.6	0.9	0.9	0.1	1.9	65.5
DHS 1987	26.8	3.1	22.6	1.2	1.7	23.5	78.9	n.d.	n.d.	n.d.	0.3	79.2
2000												
Vietnam	4.3	38.5	6.3	0.5	5.9	0.2	55.8	7.3	11.9	0.3	19.2	75.3
DHS 1997	6.3	37.7	5.9	0.5	5.8	0.4	56.7	7.4	14.3	0.1	21.8	78.5
DHS 2002												

Sources: Unicef, Global database on contraceptive prevalence (UN Population Division, 2001), at <http://www.childinfo.org/eddb/fertility/dbcontrc.htm>; UNSTATS, at <http://unstats.un.org/unsd/Demographic/products/socind/contraceptive.htm>; Thailand reproductive health profile, Reproductive Health Division, Department of Health, Ministry of Health, 2003, at www.searo.who.int/LinkFiles/Family_Planning_Fact_Sheets_thailand.pdf; National Fertility and Family Health Survey, Korea Institute for Health and Social Affairs, 1998.

Table A.9. Life expectancy at birth and infant mortality, 1950 to 2005

Sub-region ^(a) and country	Life expectancy (years)						Infant mortality rate (per thousand)					
	1950- 1955	1960- 1965	1970- 1975	1980- 1985	1990- 1995	2000- 2005	1950- 1955	1960- 1965	1970- 1975	1980- 1985	1990- 1995	2000- 2005
East Asia	42.9	51.4	64.2	66.8	69.9	73.2	181	113	56	35	28	24
China	40.8	49.5	63.2	65.5	68.7	72.0	195	121	61	38	30	26
Japan	63.9	69.0	73.3	76.9	79.5	81.9	51	25	12	7	4	3
Mongolia	42.2	48.3	53.8	57.5	61.3	65.0	148	121	98	78	68	45
North Korea	50.1	56.7	64.0	69.1	70.0	66.7	91	67	44	30	42	50
South Korea	47.5	55.3	62.6	67.1	72.2	77.0	115	70	38	23	14	5
Southeast Asia	40.9	46.7	52.3	58.7	64.2	68.5	169	134	105	75	51	33
Brunei Darussalam	60.4	63.0	68.3	71.6	74.5	76.3	68	62	54	14	8	6
Cambodia	39.4	43.4	40.3	51.0	55.8	56.8	165	140	181	116	90	73
Indonesia	37.5	42.5	49.2	56.2	62.7	68.6	201	166	126	89	58	34
Laos	41.9	44.3	46.5	49.8	56.0	61.9	170	155	141	122	89	62
Malaysia	48.5	55.7	63.0	68.0	70.7	73.0	99	63	42	28	15	10
Myanmar	36.3	45.1	53.1	58.1	59.3	59.9	181	140	106	86	81	75
Philippines	47.8	54.8	58.1	62.1	66.5	70.3	134	96	80	61	43	28
Singapore	60.4	65.8	69.5	71.8	75.8	78.8	66	30	19	8	6	3
Timor-Leste	30.0	35.0	40.0	39.9	49.2	58.3	264	221	183	183	125	79
Thailand	50.8	56.1	60.4	64.6	67.3	68.6	118	83	56	35	21	12
Vietnam	40.4	45.4	50.3	58.8	67.7	73.0	158	130	107	70	38	22
Whole region	42.5	50.4	61.5	64.9	68.5	72.0	179	117	67	45	34	27

^(a) The sub-regional averages are weighted by the population size of each country.

Source: United Nations (2006a).

Table A.10. Maternal mortality and HIV prevalence at ages 15-49

Sub-region and country	Maternal mortality rate in 2005 ^(a)	HIV prevalence rate ^(b) in 2003 (%)
East Asia	50	0.1
China	45	0.1
Japan	6	< 0.1
Mongolia	46	< 0.1
North Korea	370	n.d.
South Korea	14	< 0.1
Southeast Asia	300	0.6
Brunei Darussalam	13	< 0.1
Cambodia	540	2
Indonesia	420	0.1
Laos	660	0.1
Malaysia	62	0.4
Myanmar	380	1.4
Philippines	230	< 0.1
Singapore	14	0.3
Timor-Leste	380	n.d.
Thailand	110	1.4
Vietnam	150	0.4
<p>^(a) Defined as the number of maternal deaths for 100,000 live births.</p> <p>^(b) Men and women aged 15-49. The HIV prevalence rate measures the proportion of HIV-infected persons, whether or not they have AIDS.</p> <p>Sources: WHO (2007) and UNAIDS/WHO (2007).</p>		

Table A.11. Conditions of delivery, mortality and health of children

Sub-region and country	Mortality rates (% ^(a))			Percentage of births with no antenatal care ^(b) (2000–2006)	Percentage of deliveries not attended by skilled health personnel ^(a) (2000–2006)	Percentage of children vaccinated against measles ^(a) (2000–2006)	Percentage of under-5s with severely stunted growth ^(a) (2000–2006)
	Neonatal (2000)	Infant (2005)	Age 0-5 (2006)				
East Asia							
China	21	20	24	10	2	93	22
Japan	2	3	4	0	0	99	–
Mongolia	26	34	43	1	1	99	24
North Korea	22	42	55	2	3	96	45
South Korea	3	5	5	0	0	99	–
Southeast Asia							
Brunei Darussalam	4	8	9	0	1	97	–
Cambodia	40	65	82	31	56	78	44
Indonesia	18	26	34	8	28	72	29
Laos	35	59	75	73	81	48	48
Malaysia	5	10	12	21	2	90	–
Myanmar	40	74	104	24	43	78	41
Philippines	15	24	32	12	40	92	34
Singapore	1	2	3	0	0	93	4
Thailand	13	7	8	2	3	96	16
Timor-Leste	40	47	55	39	82	64	56
Vietnam	15	15	17	9	12	93	36

Source: ^(a) UNICEF 2008, *The State of the World's Children 2008*, Statistical tables; ^(b) UNICEF/World Health Organization, *Antenatal Care in Developing Countries: Promises, Achievements and Missed Opportunities*, 2003 except Japan: <http://www.who.int/pmnch/media/news/2008/japanexample.pdf>, consulted 1 July 2008; North Korea: http://www.searo.who.int/LinkFiles/Making_Pregnancy_Safer_WHR2005.pdf, consulted 1 July 2008; South Korea: http://www.searo.who.int/LinkFiles/Improving_maternal_newborn_and_child_health_DPR-Korea.pdf, World Health Organization, South-East Asia Region, Basic Indicators: Health Situation in South-East Asia, 2004, consulted 1 July 2008; Singapore: WHO <http://www.wpro.who.int/internet/files/pub/360/287.pdf>, consulted 1 July 2008.

Table A.12. Proportions of the population aged under 15 and over 60, and median age from 1950 to 2030; dependency ratio and sex ratio in 2005

Sub-region ^(a) and country	Percentage under 15			Percentage aged 60+			Median age (in years)			Dependency ratio in 2005(%) ^(b)	Sex ratio in 2005 (%) ^(c)
	1950	2005	2030	1950	2005	2030	1950	2005	2030		
East Asia	34.2	20.9	15.3	7.4	12.4	25.5	23.5	33.5	42.2	71.3	105.4
China	33.5	21.6	15.8	7.5	11.0	24.4	23.9	32.5	41.3	69.6	106.8
Japan	35.4	13.9	10.3	7.7	26.4	37.9	22.3	42.9	52.1	75.9	95.5
Mongolia	41.9	28.9	22.1	5.5	5.9	12.7	19.0	24.2	35.9	90.0	99.5
North Korea	47.9	24.2	19.6	3.9	13.3	19.6	15.9	32.1	38.2	107.5	97.2
South Korea	41.7	18.6	11.6	5.4	13.7	31.2	19.2	35.0	48.1	89.1	100.0
Southeast Asia	38.5	29.3	25.7	6.0	8.0	14.4	20.6	26.0	34.6	80.4	99.5
Brunei Darussalam	36.4	29.6	25.9	7.6	4.7	12.1	22.4	26.2	32.9	78.6	107.5
Cambodia	42.2	37.6	34.9	4.5	5.1	7.6	18.7	20.1	28.0	87.8	94.8
Indonesia	40.5	28.4	24.0	5.6	8.3	14.8	20.0	26.5	35.4	85.6	99.9
Laos	39.3	39.8	35.4	3.9	5.2	7.4	20.3	19.2	28.2	76.1	99.2
Malaysia	40.9	31.4	27.8	7.3	6.7	13.4	19.8	24.7	33.2	93.1	103.3
Myanmar	34.2	27.3	22.7	5.7	8.0	15.2	22.9	26.8	36.4	66.5	98.1
Philippines	43.6	36.2	33.4	5.5	6.0	9.6	18.2	21.8	28.9	96.5	101.4
Singapore	40.5	19.5	12.6	3.7	12.3	35.4	20.0	37.5	48.3	79.2	101.3
Thailand	42.1	21.7	16.9	5.0	11.3	24.1	18.6	32.6	41.2	89.3	95.3
Timor-Leste	40.5	45.0	47.7	5.6	4.6	4.6	19.6	17.3	19.5	85.6	103.0
Vietnam	31.7	29.6	23.9	7.0	7.6	14.8	24.6	24.9	35.8	63.3	100.0
Whole region	35.1	23.1	18.4	7.1	11.2	22.2	22.9	31.5	40.0	73.7	103.8

^(a) The sub-regional averages are weighted by the population size of each country.

^(b) Ratio of the population aged under 15 and over 60 to the population aged 15-59.

^(c) Number of males per 100 females.

Source: United Nations (2006a).

Table A.13. International migration, refugees and displaced populations

Sub-region and country	Migrant stock in 2005 ^(a)		Net migration rate (%) in 2000-2005 ^(b)	Number of refugees in 2005 ^(c)	Population under UNHCR mandate in 2005 ^(d)
	Number	Percentage of total population			
East Asia	6,497,151	0.4	-0.2	303,068	307,801
China ^(e)	3,851,637	< 0.1	-0.3	299,385	304,156
Japan	2,048,487	1.6	0.4	1,832	2,474
Mongolia	9,069	0.3	-4.0	0	583
North Korea	36,765	0.2	< 0.1	1,851	-
South Korea	551,193	1.2	-0.3	0	588
Southeast Asia	5,664,116	1.0	-0.6	169,842	511,232
Brunei Darussalam	124,193	33.2	2.0	0	-
Cambodia	303,871	2.2	0.2	856	226
Indonesia	159,731	0.1	-0.9	0	528
Laos	24,646	0.4	-4.2	0	-
Malaysia	1,639,138	6.5	1.2	45,615	106,083
Myanmar	117,435	0.2	-0.4	106	236,587
Philippines	374,458	0.5	-2.2	1	904
Singapore	1,842,953	42.6	9.6	1	4
Thailand	1,050,459	1.6	0.7	122,195	149,351
Timor-Leste ^(b)	6,127	0.6	21.2	143	13
Vietnam	21,105	< 0.1	-0.5	925	17,536
Whole region	12,161,267	0.6	-0.3	472,910	819,033

^(a) Defined as the number of persons born abroad; ^(b) Defined as the annual number of immigrants minus annual number of emigrants between 2000 and 2005 divided by the average total population of the country or region; ^(c) Person with refugee status under the various international conventions currently in force (United Nations, 2006b); ^(d) Total number of foreign refugees, asylum seekers, return refugees and internally displaced individuals under UNHCR protection; ^(e) Including Hong Kong and Macau.

^(a) The population movements resulting from political violence in 2006 are not included in this table as the data presented concern 2005, the last year for which data are available for all countries of the region.

Sources: United Nations (2006b) for migrant stocks; United Nations (2006a) for migration rates; UNHCR (2006) for populations under UNHCR mandate.

Table A.14. Development indicators (economy, human development and poverty)

Sub-region and Country	Percentage urban in 2004	Per capita GNI in USD (PPP) in 2004 ^(a)	Percentage of illiterates aged 15+ in 2004	Net rate of primary school enrollment in 2004 (%)	Human development index ^(b)			Human poverty index (HPI-1) ^(c)	Gender-related development index ^(d)
					1980	2004	World ranking 2004		
East Asia									
China	39.5	5,896	13.0	–	0.560	0.768	81	11.7	0.765
Japan	65.7	29,251	–	100	0.884	0.949	7	–	0.942
Mongolia	56.6	2,056	1.4	84	–	0.691	116	18.5	0.685
North Korea	–	–	–	–	–	–	–	–	–
South Korea	80.6	–	–	100	0.746	0.912	26	–	0.905
Southeast Asia									
Brunei Darussalam	73.1	20,499	8.2	–	–	0.871	34	–	–
Cambodia	19.1	2,423	29.9	98	–	0.583	129	39.3	0.578
Indonesia	47	3,609	11.6	94	0.532	0.711	108	18.5	0.704
Laos	20.3	1,954	32.7	84	–	0.553	133	36.0	0.545
Malaysia	66.3	10,276	11.1	93	0.659	0.805	61	8.3	0.795
Myanmar	30.1	1,027	14.4	87	–	0.581	130	21.6	–
Philippines	61.9	4,614	4.4	94	0.689	0.763	84	15.3	0.761
Singapore	100	28,077	6.9	–	0.763	0.916	25	6.3	–
Thailand	32	8,090	4.0	–	0.654	0.784	74	9.3	0.781
Timor-Leste	26.1	–	–	–	–	0.512	142	–	–
Vietnam	26	2,745	7.0	93	–	0.709	109	15.7	0.708

^(a) Per capita gross national income in USD calculated in terms of purchasing power parity (PPP); ^(b) Composite index measuring human development, including life expectancy, adult literacy rates, school enrollment ratios and per capita GDP. The closer it is to 1, the better the situation; ^(c) Composite index measuring deprivations in health (mortality from age 0 to 40), education (adult illiteracy) and standard of living (access to an improved water source and malnutrition under age 5). The closer it is to 1, the better the situation; ^(d) Index based on the same criteria and types of measure as the HDI, but reflecting inequalities between men and women.

Source: UNDP (2006).

Table A.15. Illiteracy rates and ratio of female to male rates, 1980-2005

Country	1980				1990			
	Men	Women	Overall	F/M ratio	Men	Women	Overall	F/M ratio
East Asia								
China	21.0	45.6	32.9	2.2	12.8	31.1	21.7	2.4
Japan	–	–	–	–	–	–	–	–
Mongolia	1.8	4.6	3.2	2.6	1.6	2.9	2.2	1.8
North Korea	–	–	–	–	–	–	–	–
South Korea	3.2	11.1	7.1	3.5	1.6	6.6	4.1	4.1
Southeast Asia								
Brunei Darussalam	14.9	32.6	22.8	2.2	9	20.6	14.5	2.3
Cambodia	25.6	60.9	45.4	2.4	22.3	51.2	38.0	2.3
Indonesia	20.9	40.6	31	1.9	13.3	27.5	20.5	2.1
Laos	36.2	67.6	51.8	1.9	29.7	57.2	43.5	1.9
Malaysia	20	37.7	28.8	1.9	13.1	25.6	19.3	2.0
Myanmar	14.5	34.2	24.4	2.4	12.6	25.8	19.3	2.0
Philippines	11.2	13.2	12.2	1.2	7.8	8.8	8.3	1.1
Singapore	8.7	26.3	17.4	3.0	5.6	16.8	11.2	3.0
Thailand	7.5	17.4	12.5	2.3	4.7	10.6	7.6	2.3
Timor-Leste	–	–	–	–	–	–	–	–
Vietnam	6.7	18.0	12.7	2.7	6.0	12.9	9.7	2.2
2000								
Country	2000				2005			
	Men	Women	Overall	F/M ratio	Men	Women	Overall	F/M ratio
East Asia								
China	7.9	22.1	14.8	2.8	5.9	17.9	11.8	3.0
Japan	–	–	–	–	–	–	–	–
Mongolia	1.4	1.7	1.6	1.2	1.3	1.3	1.3	1.0
North Korea	–	–	–	–	–	–	–	–
South Korea	0.9	3.6	2.3	4.0	0.7	2.6	1.6	3.7
Southeast Asia								
Brunei Darussalam	5.4	11.9	8.5	2.2	4.6	10.1	7.2	2.2
Cambodia	19.8	42.8	32	2.2	18.3	37.7	28.5	2.1
Indonesia	8.2	18.1	13.2	2.2	6.4	14.5	10.5	2.3
Laos	23.8	46.6	35.2	2.0	20.9	41.2	31.0	2.0
Malaysia	8.6	16.6	12.6	1.9	7.0	13.3	10.1	1.9
Myanmar	11.1	19.5	15.3	1.8	10.4	17.2	13.9	1.7
Philippines	4.9	5.2	5.1	1.1	3.9	4.0	4.0	1.0
Singapore	3.8	11.7	7.7	3.1	3.0	9.3	6.2	3.1
Thailand	2.9	6.1	4.5	2.1	2.3	4.9	3.6	2.1
Timor-Leste	–	–	–	–	–	–	–	–
Vietnam	5.5	9.3	7.5	1.7	5.2	8.0	6.6	1.5

Sources: UNESCO, Institute for Statistics, "Adult illiteracy for population aged 15 years and above, by country and by gender 1970-2015", at <http://www.uis.unesco.org/en/stats/statistics/literacy2000.htm>

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ISABELLE ATTANÉ, MAGALI BARBIERI • THE DEMOGRAPHY OF EAST AND SOUTHEAST ASIA FROM THE 1950S TO THE 2000S. A SUMMARY OF CHANGES AND A STATISTICAL ASSESSMENT

With 2.1 billion inhabitants, the region of East and Southeast Asia is home to one-third of the global population, notably thanks to China, the world's most populated country, which alone has 1.3 billion citizens. This chronicle provides an overview of the major sociodemographic and health trends in the region since the 1950s, along with a statistical assessment of the most reliable recent data on each country. It includes information on population size and structure, fertility and its intermediate variables, nuptiality, mortality and health, international migration, urbanization and access to education. The region is marked by the extremely rapid progress achieved in reducing mortality and controlling fertility over recent years. Life expectancy at birth has risen from 40 to 70 years since the early 1950s and, thanks to vigorous and sometimes interventionist family planning programmes in certain countries, fertility in the region as a whole is now below replacement level. These changes are raising new demographic challenges, the most immediate of which are population ageing, changing migration patterns and, in some countries, a sex-ratio imbalance resulting from massive use of sex-selective abortion.

ISABELLE ATTANÉ, MAGALI BARBIERI • LA DÉMOGRAPHIE DE L'ASIE DE L'EST ET DU SUD-EST DES ANNÉES 1950 AUX ANNÉES 2000. SYNTHÈSE DES CHANGEMENTS ET BILAN STATISTIQUE.

Avec ses 2,1 milliards d'habitants, l'Asie de l'Est et du Sud-Est rassemble le tiers de la population mondiale, notamment du fait de la présence de la Chine, pays le plus peuplé du monde, qui compte à elle seule 1,3 milliard d'habitants. Cette chronique propose à la fois une synthèse des grandes évolutions sociodémographiques et sanitaires depuis les années 1950 et un bilan statistique rassemblant les données récentes les plus fiables sur chaque pays. Y sont notamment examinés les effectifs et les structures de la population, la fécondité et ses variables intermédiaires, la nuptialité, la mortalité et la santé, les migrations internationales, l'urbanisation et l'accès à l'éducation. La région se distingue particulièrement par des progrès extraordinairement rapides réalisés tant dans le domaine de la lutte contre la mortalité que dans celui de la maîtrise de la fécondité. L'espérance de vie à la naissance est ainsi passée de 40 à 70 ans depuis le début des années 1950 et, grâce à des programmes de planification familiale souvent très interventionnistes mis en œuvre dans quelques pays, la fécondité est aujourd'hui, dans l'ensemble de la région, inférieure au seuil de remplacement des générations. Cette évolution conduit à de nouveaux défis démographiques dont les plus immédiats sont le vieillissement de la population, la réorientation des flux migratoires et, dans certains pays, un déséquilibre de la structure par sexe lié au recours massif aux avortements sélectifs.

ISABELLE ATTANÉ, MAGALI BARBIERI • LA DEMOGRAFÍA DE ASIA DEL ESTE Y DEL SURESTE DE LOS AÑOS 1950 A LOS AÑOS 2000. SÍNTESIS DE LOS CAMBIOS Y BALANCE ESTADÍSTICO

Con sus 2 100 millones de habitantes, Asia del Este y del Sureste reúne la tercera parte de la población mundial, en particular debido a la presencia de China, el país más poblado del mundo que cuenta por sí solo con 1 300 millones de habitantes. Este artículo propone tanto una síntesis de las principales evoluciones sociodemográficas y sanitarias desde los años 1950 y un balance estadístico que reúne los datos recientes más fiables sobre cada país. Aquí se examinan en particular los efectivos y las estructuras de la población, la fecundidad y sus variables intermedias, la nupcialidad, la mortalidad y la salud, las migraciones internacionales, la urbanización y el acceso a la educación. La región se distingue en particular por progresos extraordinariamente rápidos realizados tanto en el campo de la lucha contra la mortalidad como en el del control de la fecundidad. La esperanza de vida al nacer ha pasado así de 40 a 70 años desde el inicio de los años 1950 y gracias a programas de planificación familiar a menudo muy intervencionistas puestos en práctica en algunos países, la fecundidad es hoy en día, en el conjunto de la región, inferior al umbral de sustitución de las generaciones. Esta evolución conduce a nuevos desafíos demográficos siendo los más inmediatos el envejecimiento de la población, la reorientación de los flujos migratorios y en ciertos países, un desequilibrio de la estructura por sexo vinculado con el recurso masivo a los abortos selectivos.

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