ABSTRACT

The population of South-East Asia has recently passed the 500 million mark. Although growth is slowing, another 140 million may be added over the 20-year period 1995-2015. The additional population will be concentrated in the working ages and among the elderly. In many countries of the region – for example, Thailand, Indonesia and Vietnam – there will be little or no further growth in the number of children and adolescents. Almost all countries will continue to benefit for some time yet from a decline in dependency ratios that has been in train since the early 1970s. By the mid-1990s, the whole region had progressed three quarters of the way toward replacement level fertility, though individual country circumstances ranged from far below replacement fertility in Singapore to continued very high fertility in Lao PDR. A general theory explaining the varied fertility experiences of the different countries remains elusive. Although South-East Asia remains one of the world’s least urbanized regions, urbanization is increasingly rapidly and the region contains some of the world’s largest cities. Because of wide differences between countries in their mortality and fertility transitions, levels of urbanization, systems of governance, and ethnic and cultural background, the key issues facing population policy and approaches to dealing with them remain diverse.
THE POPULATION OF SOUTH-EAST ASIA

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INTRODUCTION

The total population of South-East Asia in 1995 was 480 million. This population had doubled in the 32 years since 1963, and had increased from 287 million in 1970, or by 67 per cent over this period of a quarter century. This paper will examine the components of this growth, assess some explanations for what has happened and look into the future to see how the population is likely to evolve over the coming decades. All nations of South-East Asia are now members of ASEAN, following Cambodia’s inclusion in 1999. Therefore in dealing with the population of South-East Asia, the paper will also be dealing with the population of ASEAN.

A rapid decline in mortality beginning in the late 1940s and, in some countries, a rise in fertility, led to an acceleration of population growth in the 1950s and 1960s. It is not surprising, therefore, that in the 1960s concern was building up throughout the region about the rapid rates of population growth, and that by 1970 all of the then-members of ASEAN (except Brunei) had adopted policies to reduce this rate of population growth. The introduction of these policies coincided with the beginnings of a downturn in the rates of population growth, occasioned by a fertility decline which resulted in birth rates declining faster than the ongoing decline in death rates. The extent to which the policies and programmes resulting from them were responsible for this fertility decline will be discussed later.

Table 1 shows the basic facts of population size and growth rates in ASEAN countries. The density figures reveal little without studying regional variation at a more disaggregated level. For example, Indonesia’s figure of 104 per sq. km. encompasses provincial figures of 866 for Central Java and four for Irian Jaya.
THE POPULATION SITUATION IN HISTORICAL CONTEXT

Southeast Asia is one of the most sparsely settled regions of the Asian continent. Two centuries ago, it was a region of forests, swamps and jungles, broken only here and there by significant concentrations of human settlement (notably Central Java, Bali, the Red River, Chao Phaya and Irrawaddy deltas, and parts of Luzon and the Visayas). The nineteenth and twentieth centuries have seen an extraordinary multiplication of the population: from little more than 30 million in 1800 to more than 80 million in 1900 and 500 million in 1998. But even the recent decades of rapid population increase have left population densities in Southeast Asia well below those of much of India and China, though it does contain some of the world’s most densely settled agricultural regions, such as East and Central Java and the Red River delta of northern Vietnam.

The demographic history of these countries over the last two centuries has been one of frontier expansion into previously empty or sparsely populated regions, some of it officially planned but; most of it spontaneous. In the Philippines the main movement was to Mindanao, in Thailand to sparsely settled changwats towards the Burmese, Lao and Cambodian borders, in Peninsular Malaysia to the state of Pahang and in Indonesia to Sumatra and, more recently, to Kalimantan, Sulawesi and Irian Jaya. The Philippine land frontier had ceased to exist by the late 1960s and the Thai frontier by the late 1970s. Notwithstanding the massive scale of the Indonesian transmigration programme, at least in the 1970s and early 1980s, and the continuing ‘frontier’ character of parts of Myanmar and much of Laos, the possibility of moving to new land is closed to the vast majority of the agricultural population, both in Indonesia and in the other South-East Asian countries. Further increases in agricultural production will therefore depend on intensification of cultivation in already settled areas.

Accompanying the growth and frontier expansion of settlement has been a gradual rise in the urban share of the total population, although levels of urbanization remain very low by world standards. Only slightly over one third of South-East Asians live in urban areas. Malaysia and the Philippines are the only countries in the region where more than
50 per cent of the population lives in urban areas, and in the Philippines this is only by dint of a very inclusive definition of what constitutes an urban area. Nevertheless, conditions of life for the rural population have been changing dramatically, in ways that blur the formerly sharp distinction between urban and rural areas. Secondary and tertiary industries provide an increasing share of jobs in rural areas. Isolation has been broken down by developments in transport and communication. This both makes travel to towns easier than in the past, but also means that villagers who in the past may have had very infrequent access to news of or influence from the outside world, are now watching the same TV programs as urbanites.

South-East Asia also boasts some of the world’s largest cities in Jakarta, Manila and Bangkok. Jakarta and Manila each has approximately 10 million people in the metropolitan area (DKI Jakarta and Metro Manila respectively), but close to 20 million, or more than the entire population of Australia, in the extended metropolitan region spreading out from the city core 50 kilometers or more in some directions. Thailand has the dubious distinction of displaying the highest level of urban primacy of any of the world’s large countries, with two thirds of its urban population residing in the capital, Bangkok. The Philippines also displays a high level of primacy, though Davao City and Cebu are becoming substantial cities. Indonesia and Malaysia have a more balanced hierarchy of cities, but even here the tendency for increasing dominance of the main metropolitan region (in Indonesia, the Jabotabek metropolis focusing on Jakarta and in Malaysia, the Klang Valley) is apparent. Vietnam shows a different bi-polar urban pattern, reflecting its elongated shape and its political history, with Hanoi and Ho Chi Minh City providing the foci for the northern and southern regions respectively.

**TRENDS IN VITAL RATES AND POPULATION GROWTH**

The underlying determinants of population growth are crude birth and death rates, which in turn are determined by fertility and mortality levels and the age structure. The early stages of demographic transition in the region were ushered in by a downturn in mortality shortly after the end of the Second World War, due to the application of modern science
and technology to problems of disease control and historically unprecedented improvements in levels of living. The introduction of penicillin and other antibiotics in the later 1940s and 1950s, and the spread of massive public health campaigns (including programmes of DDT spraying to reduce the incidence of malaria, and inoculation campaigns against the major endemic diseases of childhood) were major factors behind the plummeting death rates. Whereas shortly after the end of the Second World War, close to one in five babies born in ASEAN countries would fail to live to the age of five, by 1985 the chances of death at these ages had been cut by two-thirds.

In the more favoured countries, the progress made in lowering mortality has been remarkable. Singapore’s infant mortality rate of 5 per thousand is lower than the current United States figure, and Malaysia’s rate of 11 is comparable to that of the United States in the 1980s. However, there is scope for further substantial declines in mortality rates in Indonesia, Vietnam, the Philippines, and especially Myanmar, Laos and Cambodia. The infant mortality rate remains at around 48 per thousand live births in Indonesia, 38 in Vietnam and 35 in the Philippines. Myanmar, Laos and Cambodia are unfortunately in a different league, as a result of their low levels of development, poorly developed health services and many isolated regions. Here infant mortality rates are estimated to be about 79, 93 and 103 respectively, and maternal mortality rates are shockingly high.

As for fertility, the onset of decline was delayed. Fertility first began to decline in Singapore in 1957, followed by Malaysia and Thailand in the mid-1960s, the Philippines and Indonesia in the late 1960s, and in the early 1970s by Myanmar and Vietnam. The decline accelerated markedly over the 1970s and into the early 1980s, and soon led to declines in rates of population growth. Indeed, the fertility declines in Singapore, among the Chinese and Indians in Malaysia, and in Thailand were among the most rapid ever experienced in world history. The trends in total fertility rates are shown in Figure 1 and Table 2. During the quarter century between the late 1960s and the early 1990s, South-East Asian fertility fell by 48 per cent. This represents 74 per cent of the decline needed to achieve the replacement level of 2.1 children per woman. Fertility declines of more than 45 per cent occurred in Thailand, Myanmar, Singapore, Indonesia and Vietnam.
The speed of fertility decline in Thailand almost matched that recorded in China in the 1970s and Japan after the Second World War. Thailand’s fertility descended through the replacement level around 1989. In contrast, the sharp decline recorded in Indonesian fertility during the 1970s and 1980s has slackened in the 1990s, leaving fertility still more than half a child above replacement level. The Indonesian fertility decline has been remarkably widespread, affecting even the least developed and most isolated provinces. This has narrowed the earlier wide gap in fertility between regions. However, fertility declines were sharpest of all in Java (except West Java), Bali and North Sulawesi. Fertility levels in the 1990s remain highest in a mixed bag of provinces including quite developed ones such as North and West Sumatra and more isolated and less developed regions such as West Kalimantan, East Nusatenggara and Irian Jaya.

In Malaysia, trends for the different ethnic groups have diverged remarkably since the late 1970s. All ethnic groups experienced substantial fertility declines in the early 1970s, and these declines have been maintained to the present time among Chinese- and Indian-Malaysians. Chinese fertility rates dropped to replacement level around 1990, and Indian rates were not much higher (Leete, 1996). Among the Malays, however, fertility rates turned up after 1978, plateaued some 15 per cent above their low point and then resumed a moderate decline. A large gap has opened between Malay fertility and that of the other ethnic groups: in 1991, Malay fertility levels were almost twice those of the Chinese, and this differential has persisted until the late 1990s, ensuring that the Malay proportion of the population will continue to rise steadily over coming years.

Myanmar provides the real surprise. Until recently, there was little hard evidence, and the United Nations Population Division assumed only modest declines in fertility (UN, 1997). However, surveys conducted in 1991 and 1997 now confirm sharp fertility declines after the mid-1970s. These declines were not much slower than those beginning earlier in Thailand, and were considerably sharper than those in Indonesia. TFR reached below 3 in 1990, but thereafter declined more slowly (Department of Population, 1998).
In the Philippines, fertility declined substantially in the 1970s, but in recent times the decline has slowed, leaving fertility rates well above those of the other large countries in the region, and endowing the age structure with an enormous potential for further population growth. Vietnam also experienced substantial fertility declines in the 1970s, which continued during the 1980s (Goodkind, 1995). Fertility in Vietnam is now well below that in the Philippines. Finally, in Lao PDR there is as yet no evidence at all of declines in fertility.

What factors have been responsible for the fertility trends? The theory of demographic transition argues that a key prerequisite of sustained fertility decline is the increased survival of children, which reduces the number of children parents need to produce in order to ensure that a given number survive to maturity. Other forces, particularly urbanisation, subvert the largely corporate, family based way of life of traditional society and replace it with individualism and growing personal aspirations. With a changing perception of the costs and benefits of children, closely related to increased education and growing work opportunities for women in urban settings, the cultural and familial ‘props’ sustaining high fertility – religious doctrines, moral codes, laws, community customs, marriage habits and family organisations – gradually alter. The ‘bottom line’ in demographic transition theory’s explanation of fertility change is economic determinism. Economic determinism is relevant in a very broad-brush way in explaining the South-East Asian transition – the lowest fertility is in the most economically advanced country (Singapore) and the highest in the least advanced (Laos and Cambodia). But the dynamics of the transition between these two states are poorly explained by conventional measures of development – a conclusion also reached in a recent analysis of worldwide data on the fertility transition (Bongaarts and Watkins, 1996). Later, we will widen the discussion to other approaches to explaining fertility transition.

In South-East Asian societies, there is little childbearing outside marriage. Therefore the two factors determining fertility are the amount of a woman’s reproductive period she spends within marriage, and the level of marital fertility. The marriage element
is often ignored in theories of fertility determination, but it is in fact very important. For example, the fertility decline for Malays in Malaysia over the 1960s was almost entirely due to rising age at marriage (Jones, 1990:513), and a rise of five years in the mean age at marriage for females in Myanmar between 1973 and 1997 undoubtedly played an important part in the surprisingly rapid fertility decline in that country. There has been a tendency for female ages at marriage to rise throughout the region, and for a substantial proportion of women in the cities to reach their mid-40s without marrying (15 per cent in the case of Bangkok; around 10 per cent in Singapore: Jones, 1997). This helps to account for the below-replacement fertility evident in the major cities of the region. Those women who do marry, many of them not until their 30s, are not producing enough children to make up for those who do not marry.

It is unlikely that many of those women who are postponing their marriages or not marrying at all are motivated by the desire to avoid childbearing. But to some extent, the same factors that influence their married sisters to control their fertility are influencing their decision not to marry: the factors of urbanization, education, and career choice. The achievement of secondary or higher education favours pursuit of career, and causes a shortage of ‘suitable’ potential spouses given the perceived need to marry a husband with a higher level of education. In addition, greater awareness through education, media exposure and feminist ideology makes the lot of married women in patriarchal societies appear less than appealing. But whether or not the desire to avoid childbearing plays any part in the decision to postpone marriage or not to marry at all, the effect of such delayed marriage or non-marriage on a society’s childbearing is certainly strong.

Given that socio-economic factors are thought to influence both marriage and marital fertility, it is not surprising that one avenue of research has been the attempt to identify ‘threshold’ levels of certain socio-economic indicators which, when reached, would presage the onset of fertility decline. If we examine ASEAN trends since the 1960s in socio-economic indicators that are usually given primacy in demographic transition theory – that is, mortality decline, urbanisation, education, increases in income levels, and female employment in non-agricultural activities, in most countries these have all shown
rapid changes in directions that could be expected to lead to fertility decline. This would support the expectation of fertility declines in these ASEAN countries since that time, and this has in fact happened. But – as elsewhere in the world - there have been wide differences between countries and regions in the levels of the indicators at which fertility decline set in (Bongaarts and Watkins, 1996, Figs. 2 and 3). Thus there are numerous cases where ‘threshold’-type analysis of the social and economic trends produces some expectations that have not been fulfilled – for example, that fertility decline would be earlier and faster in the Philippines than in Indonesia; or that, within Indonesia, fertility decline would have been more rapid in provinces scoring higher on the socio-economic indicators than in other provinces; or that in Malaysia, Malay fertility should have been falling just as rapidly in recent years as Chinese or Indian fertility.

Once we start to look into the detail of what has been taking place in these countries, it is possible to detect three broad groups of factors that have influenced fertility, aside from those given prominence in demographic transition theory:

1. Transport and communications revolutions;
2. Government family planning efforts;

We might examine each of these briefly.

In Indonesia, Thailand, and the Philippines, as well as in the east coast states of Peninsular Malaysia and in East Malaysia, transportation networks were highly inadequate in the early post-war years. The gradual development of all-weather road systems (very rapid in Thailand during the 1960s and 1970s, and in Indonesia since the 1970s) ended the isolation of a large number of villages: and development of public transport facilities (such as the up-country buses of Thailand and the ‘Bis Malam’ and colts in Indonesia) have given even poor villagers more ready access to large cities. Perhaps even more important has been the spread of radio and TV into the villages, as the cost of transistor radios has fallen and TV networks expanded. The perceptions and aspirations of rural dwellers, even those in isolated areas, are undoubtedly profoundly affected by the urban-dominated images they receive via these media.
Another important factor entirely absent in the European demographic transition has been organized government programs (mostly beginning around the late 1960s) to foster smaller family size norms and to make contraception readily available. There is debate over where such organized provision of family planning services fits into the explanatory picture, and the answers clearly differ by country. According to Pritchett (1994) the impact of these programs has been greatly exaggerated but it is still soberly assessed by Bongaarts (1997) to be substantial. Phillips and Ross (1992) argue that the effect of these programs is stronger when they operate in a context of rapid social and economic development.

Finally there is a host of factors specific to the institutions and cultures of individual South-East Asian countries which influenced their fertility trends. A few examples will serve to show that our theoretical armoury has better equipped us to explain fertility declines after they have occurred than to predict in advance when they will commence:

1. Fertility levels in Java and Bali are far below those in the Philippines, despite much lower educational and income levels; they are also lower in Java (except West Java) and Bali than in other provinces of Indonesia where educational and regional income levels are higher. But only in Bali has the speed of fertility decline exceeded that in Indonesia as a whole. In Java, though fertility declines have been impressive, the starting point for these declines was well below that in other parts of Indonesia and in the Philippines, partly because of traditional practices of lengthy breastfeeding and postpartum abstinence, high rates of marital disruption due to divorce and (to a lesser extent) widowhood, and a fairly high degree of economic independence among women.

2. In Malaysia, although during the past quarter of a century the Malays have scored sharper increases than the other ethnic groups on most indicators of socio-economic development, partly because they were starting lower down the scale and partly because they have benefited from positive discrimination.
under the New Economic Policy, this has not led to faster fertility declines for the Malays; rather the reverse. Indeed, beginning in 1977, total fertility rates for Malays rose, plateaued and have since declined only slowly, while those of other ethnic groups have continued their rapid decline. In contrast to the Chinese, the earlier Malay fertility decline was mainly due to rising age at marriage. The rise after 1977 was partly due to a halt in this upward trend, thus leading to a ‘bunching’ of births among later-marrying women. But another factor is that desired family size among Malays, which has exceeded that of the Chinese for some time, rose further after 1977.

3. The government of Myanmar has not declared any official population policy and formerly restricted access to contraceptives, though many were smuggled in from neighbouring Thailand and Bangladesh. It now has a birth spacing program, whose reach is limited both geographically (covering only 117 out of 320 townships) and in availability of particular methods (Ministry of Health and UNFPA, 1999:35). The country also remains poorer than many of its neighbours; educational and health spending by government is very low (1% and 0.3% of GDP, respectively, in 1997/98) and declining; secondary school enrolment ratios are apparently falling and have reached extremely low levels; and 35% of children under the age of three are malnourished (Economist Intelligence Unit 1998; United Nations Working group, 1998). Nevertheless, the pace of fertility decline in Myanmar has exceeded that of the much-heralded decline in Indonesia, and fertility rates have declined to levels below 3 in the 1990s, around the levels reached in Indonesia and well below those in the Philippines and Malaysia.

Sharp declines in fertility in many settings (not only in South-East Asia) where real income and certain other ‘development indicators’ do not appear to be rising significantly indicate clearly that high levels of modernization on the western model are not a necessary condition of fertility decline. ‘Modernization’ insofar as it affects fertility must be viewed broadly, and there are various fronts on which problems of high fertility
can be tackled. The factors identified in demographic transition theory are important – education, industrialization, urbanization and changes in the family. So are some other things that are not stressed in the theory.

It is these ‘other things’ over which controversy continues to rage. One school of thought gives much greater prominence to the diffusion of new ideas, and of the practice of contraception, as a major force behind fertility decline (e.g., Cleland and Wilson, 1986). In recent modifications, the term ‘social interaction’ has been used to give a broader view of what is being diffused and how (see references in Bongaarts and Watkins 1996: fn. 8). At least three aspects of social interaction are likely to be relevant for fertility change: the exchange of information and ideas, the joint evaluation of their meaning in a particular context, and social influence that constrains or encourages action.

In this context, the role of the transportation and communications revolution has been to greatly facilitate and accelerate the processes of social interaction. Governments can accelerate the process through effective communications strategies and community activities. Adioetomo (1993) argues that in Indonesia, the government succeeded in institutionalizing the notion of fertility control in this way, and once this was achieved, and more people were ‘learning by doing’ (i.e. practising contraception, whether purely voluntarily or not), community pressure to conform to a small family norm helped lower fertility further.

Another line of analysis is McNicoll’s (1997), who argues for the importance of two elements of governance – regularity and duress – in explaining the fertility decline in countries such as China and Indonesia. In the case of Indonesia, the duress is clear (Hull and Hull, 1997); by ‘regularity’ McNicoll means the importance of an environment where a degree of planning on the part of individuals and communities makes sense.

One point to bear in mind is that, whatever the mechanism by which the decision to bear fewer children is reached, the decline in mortality rates provides a key underpinning for fertility decline.
The case of Myanmar continues to pose interesting challenges to all these explanations. It is characterized by relatively high mortality; little development; little regularity in government and the duress applied certainly not being towards the practice of contraception; and highly controlled communications. Yet fertility has fallen faster than in Indonesia. While we might be inclined to explain these declines as reflecting the reaction of a formerly relatively well educated population to hard times, the failure of a similar argument to hold for the Philippines should give us pause.

DEMOGRAPHIC MOMENTUM

High fertility populations have a broad-based age pyramid, with something of the order of 45 per cent of the population aged below 15. Rapid declines in fertility undercut this age pyramid, and lead to very substantial changes in the age structure. These changes can be illustrated with reference to Indonesia, whose changing age pyramids are shown in Figure 2. In 1970, the Indonesian population had a typical developing country age structure, with the broad-based age pyramid reflecting the ever increasing cohorts of babies being born. Irregularities in the pyramid reflected some disruptions to birth and death rates during World War II and the independence struggle in the late 1940s. A steady fertility decline after 1970 led to an undercutting of the base of this pyramid by 1990, whereas the large ‘baby boom’ cohorts were by this time moving into the reproductive ages. By the year 2010, the base of the pyramid will have assumed the more rectangular form typical of low fertility countries, and the high fertility ‘bulge’ will be in the middle working ages.

If fertility were to sink to replacement level and then not deviate from this level, the age structure would gradually change and eventually reach a point at which annual births and deaths were equal. This is, after all, the meaning of replacement level fertility: the level at which a population would just be replacing itself once its age structure has settled down to the new, lower fertility level. But it takes considerable time for the age structure to adapt, and in the meantime substantial population increase can take place.
This is generally referred to as demographic momentum – the influence on population growth of high-growth-potential age structures inherited from the past. A good example is Thailand, where fertility reached replacement level in about 1990 and then sank lower. Population will keep increasing for at least 60 years from that point, and if fertility gradually climbs back to replacement and then stays there, population will level off only after growing by a further 31 per cent or so. The age pyramid for Thailand shown in Figure 3 illustrates this point. Between 1990 and 2010, although the total population will continue to grow, the only age groups which will grow are those aged above 25. The shape of the age pyramid will therefore change considerably.

Such changes in age structure are occurring in most South-East Asian countries, though to varying degrees depending mainly on the speed of fertility decline. The main exceptions are two small countries – Cambodia and Laos – where fertility remains high and the age structure (which was modified in the case of Cambodia by the massive demographic disruptions of the Khmer Rouge regime) has a very broad base as a result of high fertility.

Over the entire period of the fertility decline, the share of reproductive-age women in the population has been rising in most South-East Asian countries (for example, in Thailand, from 22.2 per cent in 1960 to 25.8 per cent in 1985), and this has dampened the effect of fertility declines on birth rates, and hence on rates of population growth. As the absolute numbers of reproductive-age women have been increasing very rapidly, in many cases annual numbers of births were increasing despite quite rapidly declining fertility. The trends in fertility rates and birth numbers in Fig. 4 are revealing. In the Philippines, though fertility has been declining gradually, the annual numbers of births have been increasing steadily. The situation is different in Thailand, where the fertility decline was sharp enough so that annual birth numbers ceased to increase by the late 1970s and then began falling. A similar pattern can be observed for Indonesia, though here the decline in births was delayed by five years or so because of later commencement of fertility decline. Finally, Malaysia shows an interesting pattern in which sharp fertility declines appeared to be presaging a decline in births from the late
1970s but a stalling in the fertility decline generated sharply increasing annual numbers of births through the 1980s.

PROSPECTS FOR FUTURE POPULATION GROWTH

Population projections by agencies such as the United Nations are ‘surprise free’ in the sense that they generally assume that modification of current fertility and mortality levels will be smooth and will follow similar patterns in similar groupings of countries. Yet surprises stemming from improving evidence cannot be entirely avoided. Thus the belated recognition by the United Nations Population Division that Myanmar’s fertility has fallen much faster than previously recognized resulted in substantially modified base populations and projected growth. The United Nations projections produced in 1996 gave Myanmar’s year 2000 population as 49.3 million. In the 1998 revision, this had been revised downwards to 45.6 million. Further into the future, the differences become larger. The 1996 United Nations ‘medium’ projection of Myanmar’s 2020 population was 64.3 million, but in the 1998 revisions this had been revised downwards to 56.0 million.

The United Nations in its ‘medium’ projections used to assume a convergence to replacement level fertility everywhere. High fertility countries such as Laos would gradually reach replacement level; countries which had ‘overshot’ replacement level in a downwards direction would in time return to replacement. The logic behind these assumptions was clear enough: any level much above or below replacement is unsustainable in the long run, leading to runaway population growth or the disappearance of populations, respectively. However, in its most recent population projections (United Nations, 1998), the United Nations Population Division has accepted the reality of long-term below-replacement fertility. Although fertility in very low fertility countries is projected to rise, that rise is not envisaged to necessarily reach replacement level. Thus for Thailand and the Republic of Korea, for example, instead of returning to 2.1 as assumed in the 1996 projections, TFR is projected to rise only to 1.9.
Figure 5 presents the results of the most recent United Nations ‘medium’ population projections as they relate to South-East Asian countries. It portrays three key facts for each country: the total population size in 1995, represented by the width of the base line; the rate of growth projected to 2015, represented by the height of the column; and the projected absolute population increase, represented by the area of the column.

Although the greatest absolute increase in population is expected to be recorded in Indonesia, by far the greatest relative increase will be in the small country of Lao PDR. Of the larger countries, the greatest relative increase will be in the Philippines, followed closely by Malaysia. Three decades ago, the Philippines and Thailand, with comparable populations, were increasing at much the same rate. The sharp divergence in prospects for future growth caused by the divergent fertility trends in the two countries is clearly evident in Figure 5.

In the context of Asia as a whole, South-East Asia’s population growth (140 million, or 29 per cent over the 20-year period) occupies an intermediate position. It will be almost twice as rapid as that of China, but it will be less than that of South Asia. The projected growth rates for China over the same period are 16 per cent, and for South Asia 35 per cent. Interestingly, however, population growth in all South-East Asian countries except Singapore, Thailand, Indonesia and Myanmar is projected to be more rapid than that in India.

**CHANGING AGE STRUCTURE AND ITS IMPLICATIONS**

Sharp changes in fertility in a number of South-East Asian countries have led to divergent growth of different age groups as smaller cohorts move up through the age structure. This has major implications for educational planning, manpower planning and planning for an ageing population. Other countries have different causes of fluctuating age structures, such as the mortality and fertility impacts of the devastation caused by war and Khmer Rouge rule in Cambodia, and reversal of fertility policy and migration movements in Singapore.
The achievement of universal primary education in Indonesia, Thailand and Malaysia was greatly assisted by the decline in fertility, and the (lagged) deceleration in growth of the school-age population. Indeed, in Thailand, the numbers entering the primary school age groups began to decline around 1980, and during the 1980s they also began to decline in some Indonesian provinces, notably East Java, Bali and North Sulawesi, and in the country as a whole by the late 1980s. By contrast, the numbers entering the primary school age groups in the Philippines and Malaysia continued to rise, and although they have now more or less levelled off in Malaysia, they will rise further for some time in the Philippines (see Fig. 6). Unfortunately, the task of the two countries in the region with very low school enrollment ratios, Cambodia and Lao PDR, will be exacerbated by continuing large increases in the number of primary school-aged children.

There was a further lag before the numbers in the secondary school ages leveled off or decreased, but this decrease began in Thailand around 1985, and in Indonesia by the early 1990s. Success in achieving universal primary school education has led to an increased emphasis on raising the proportion of children being retained into junior high school and senior high school education, which should in time assist in raising labour productivity. However, the sharp increase in numbers graduating from these levels of education in Indonesia, Malaysia and Thailand raised concerns about rising levels of unemployment for the better educated (Jones, 1993), and of course the economic crisis beginning in mid-1997 exacerbated the employment situation.

Demographic trends ensure that the working-age population in ASEAN countries will continue to grow rapidly for some time. Already, in the countries where the fertility transition is largely completed (Singapore, Thailand, Indonesia), the high fertility ‘bulge’ is reaching the middle working ages, where numbers are growing very rapidly, though numbers in the late-teen ages and early 20s are already roughly constant or declining (see Fig.7). In other South-East Asian countries, too, the key functional group experiencing rapid growth over the 20-year period following 1995 will be the population in the middle working ages. Thus throughout the region, the working-age population is ageing, and
eventually it will grow more slowly, as the cohorts born after fertility decline set in begin to move through the younger workforce ages.

Of course, the growth of the workforce, as distinct from that of the working-age population, will be influenced by changing activity rates, especially for females. While trends in these rates in rural areas are rather unclear, in urban areas female activity rates have been rising substantially over recent decades, thus raising the rate of growth of the workforce.

One implication of the changing age structure of the workforce could be worsening prospects for promotion as the ratio of older to younger workers rises. But this is a complex matter. Paradoxically, though the number of younger workers is not increasing, the number of well educated younger workers is increasing rapidly because of educational expansion. These well educated younger workers should be able to hold their own in any promotion system stressing educational attainment or productivity rather than mere time in the job. But such promotion systems are not prevalent in the region, at least in the public sector.

By 2025, the number of elderly people will be growing very rapidly in Singapore and Thailand, as the last of the high fertility cohorts begin moving into old age. In other countries, these age structure changes will be lagged, but in all South-East Asian countries where fertility has been declining (and that includes all countries except Lao PDR), the proportion of elderly in the population will be increasing steadily as the 21st century progresses.

Because the main cause of an ageing population is declining fertility, the increasing dependency burden of an ageing population is more than offset, for a considerable period of time at least, by a falling dependency burden of young people. This is shown in all the country projections in Figure 8. If young (less than 15) and old (65+) dependents are added together, the total dependency ratio (dependants/potential workers) falls steadily, because the slow increase in the old dependency ratio is more than
offset by the rapid fall in the young dependency ratio. The drop in the overall ratio is very substantial: for example, in Indonesia from .80 in 1980 to .44 in 2020. Thereafter the dependency ratio rises once more because the old dependency ratio begins to rise more steeply and the decline in the young dependency ratio slackens off.

The trends shown are fairly standard for the early stages of the ageing process. Thailand has only about another 10 years, Indonesia 20 years and Malaysia 25 years, during which the dependency burden will become more favourable before the inevitable rise sets in. The Philippines may have as much as 30 years. By contrast, Singapore’s total dependency ratio has been rising again since the early 1990s, and in contrast to all the other countries in Figure 8, the old dependency ratio will rise above the youth dependency ratio from 2025 onwards.

The decline in dependency burden has undoubtedly been an important factor assisting the economic development of South-East Asia over recent decades. For one thing, it has made for higher levels of average income at any given level of productivity per worker. For another, it lessened the need for dependence on foreign capital, although in the booming economies like Thailand and Malaysia, foreign capital dependency actually increased because the moderating influence of falling dependency rates was swamped by the vigorous investment boom (Higgins and Williamson, 1997: 279). Lessened dependency ratios also lightened the task of raising the educational attainment of each new birth cohort. The beneficial effect of falling dependency ratios could of course be partly offset in future by higher rates of unemployment if the economy is unable to generate enough employment to keep pace with the rapid growth of the labour force.

**POLICY ISSUES**

It was noted above that while mortality rates were plummeting in the postwar years, the onset of fertility decline was delayed. This opened up a wide gap between birth and death rates and a consequent sharp upturn in population growth rates. Concern about, indeed in
some quarters almost hysteria about, the ‘population explosion’ led to a flurry of international efforts to persuade countries to adopt population control policies, efforts which bore considerable fruit in the original ‘ASEAN five’ countries. By 1970, all of them had specific policies to lower fertility.

A unity of purpose, if not uniformity in programs, characterized population policy in these countries in the 1970s, but an increasing heterogeneity was apparent in the 1980s, which reflected increasingly heterogeneous demographic circumstances in the different countries as well as ideological debates. Some countries are now seriously rethinking the whole basis of population policy, a re-thinking that is also going on in East Asian countries such as the Republic of Korea and Taiwan. The basic cause in most cases is the sinking of fertility to levels well below replacement.

By the late 1980s, only three Southeast Asian countries – Indonesia, Thailand and Vietnam – maintained a policy unequivocally committed to the further reduction of fertility rates. (It is worth noting, however, that their total population constituted more than two thirds of the total population of South-East Asia). The policy stance of the others was and remains diverse. Three of them - Myanmar, Cambodia, and Lao PDR - have in fact never had an articulated population policy.

The Singapore government reversed its earlier anti-natalist policy in 1987 on the ground that fertility had reached excessively low levels, well short of population replacement in the long run, and that the better-educated segments of the population (among whom, coincidentally, the Chinese are over-represented) are precisely those falling furthest short of replacing themselves. Earlier, in 1982, the Malaysian Prime Minister had announced a population goal of 70 million, representing almost a five-fold increase on its population at that time. After some early pro-natalist rhetoric from various government ministers, and on the advice of demographers, it was accepted that this had to be a long-term goal, which would require merely a slackening in the earlier rate of decline in population growth rates, not a rise in these rates. Over time, this ill-conceived goal has been quietly placed on the back burner. The Philippines government took a
somewhat ambivalent stand on population policy during the Aquino administration, not so much on pro-natalist grounds as on the basis of religious opposition to contraception and, especially, abortion. The Ramos administration strengthened the family planning program, and after a shaky start on the issue, President Estrada recently issued a statement stressing the urgent need to slow population growth and signalling his willingness to take on the Catholic hierarchy over the supply of contraceptives.

Among the countries of the former Indo-China, wide differences in population policy remain. North Vietnam had long espoused a policy of lowering population growth rates, and unlike its communist neighbour, China, stuck unswervingly to this policy both before and after reunification (Jones, 1982). Cambodia has been unable to develop a clear population policy; although relatively high fertility rates are bringing the usual economic and human resource development problems, an anti-natalist policy is as yet almost unthinkable because of the relatively recent trauma of the suffering and the major population declines of the Khmer Rouge years. Laos has a small population and large land resources. The fact that it has the fastest growing population in South-East Asia does not concern government planners enough to adopt anti-natalist measures, although a ‘birth spacing’ policy was adopted in 1993 on health grounds (UNFPA 1997: 22).

Thailand continued to adhere to its anti-natalist policy even as evidence built up that the replacement fertility level had been breached. But finally the realization that fertility was below replacement, and far below it in the northern region, led to debates about population policy which are still ongoing (Wongboonsin and Ruffolo, 1993; Guest and Jones, 1996).

Given the fertility trends observed over the past 15 years, and the current policy stance of the various governments, there is only one country in the region whose rate of population growth is likely to remain really high (above two per cent per annum) over the next two decades: that is, Lao PDR. Cambodia’s rate will not be much lower, and the Philippines and Malaysia will still be above 1.5 per cent. Substantial absolute growth will
take place in Indonesia, but the rate of increase has already reached more modest levels – below one and a half per cent per annum – and is trending downwards.

To what extent should the rapid rate of population growth in Laos, Cambodia, the Philippines and Malaysia be considered a problem? It is generally accepted among economists that population growth should not be seen as the prime cause of poverty and retarded growth in particular countries, but rather as one factor which can interact with others in retarding growth in particular circumstances. It is necessary to take those ‘other circumstances’ into account.

Laos and Cambodia’s combined populations make up only three per cent of South-East Asia’s population, and both have relatively low population densities. Both are very poor countries, with low levels of human development in terms of education and health. Though both are capable of supporting considerably larger populations provided that there is sufficient investment in both material and human capital in order to raise their productivity, high fertility is undoubtedly hindering such investment. But both countries have historical and other reasons (notably concern about much more populous neighbours) to be wary of adopting anti-natalist policies.

The Philippines, by contrast, is South-East Asia’s third largest population, and average population density over the whole country is quite high. It faces land tenure problems of almost Latin American proportions, relatively high unemployment rates, much higher poverty levels than Malaysia or Thailand, and a history of sluggish economic growth over the past two decades. In such circumstances a sanguine view of continued rapid population growth is not justified. Despite some retrogression in its education system during the Marcos years and since, the Philippines remains a basically well-educated population, providing the human resource base for development if only economic and social policy can be appropriately reformed, a task on which some progress has been made in recent years. It is hard to see any positive developmental role for rapidly rising numbers in the present context, and a firm policy to reduce population growth rates, based mainly on the widespread provision, on a voluntary basis, of a range
of effective family planning methods, would appear to be an important component of the economic and social policy 'mix' needed to generate faster economic and social development. Unfortunately, the contribution of the population policy component would be larger in the medium to long term than in the short term.

The issues facing Malaysia are rather different. Fertility declines for the other ethnic groups are leading to a decline in overall fertility despite very slow decline amongst the dominant ethnic group, the Malays. Moreover, Malaysia’s capacity to absorb further increases in population both through land settlement and urban-based economic growth appears to be greater than that of the Philippines, though the availability of suitable land for agricultural expansion tends to be exaggerated. The issue is equally one of ethnic harmony and the longer-term future of the Malaysian polity. A rise in the share of the Malay component of the population is probably, on balance, good for racial harmony in that it allays Malay concerns over possible dominance in some areas by other ethnic groups (Jones, 1997b). However, the rise in the Malay share now promises to be so rapid that it will bring about basic changes in the structure of Malaysian society. The impossibility of providing the kinds of benefits for Malays formerly available under the New Economic Policy was evident long before the economic crisis of the late 1990s. The crisis is likely to force a re-evaluation by young Malays of their family building strategies and bring about more rapid fertility decline.

An important issue for those countries seeking to raise fertility (Singapore, perhaps soon Thailand) or to delay its decline (Malaysia) is whether there are any effective weapons in the policy armoury. It has proved very difficult in Europe, where most countries now have fertility well below replacement, to raise these levels. The Singapore government has shown imagination in introducing and modifying policies designed to encourage earlier marriage and higher fertility within marriage, using tax relief measures, housing allocation and school registration incentives, and incentives to ease the conflict between women’s work and childrearing roles (Yap, 1993), but the jury is still out with regard to the demographic impact of these policies.
Population policy deals not only with growth, but also with distribution and quality of the population, though these aspects are enmeshed with economic and social policy. Three countries in the region – Indonesia, Malaysia and Vietnam – have conducted long-term programs of officially sponsored resettlement of population over recent decades. In the case of Indonesia, the transmigration program reached its peak in terms of numbers resettled in the 1970s and early 1980s. But controversy built up over environmental impacts, land alienation and the impact on local populations in major destination areas such as Irian Jaya and parts of Kalimantan. Since budgetary difficulties in funding the program emerged in the mid-1980s, little new settlement has actually occurred, and ethnic violence in some regions between settlers and the local population during the late 1990s almost ensures that little officially-sponsored transmigration will occur in future. In Vietnam, ambitious targets to resettle population in New Economic Zones were adopted in 1976, after reunification. The results were disastrous and the goals had to be greatly scaled down (Desbarats 1987). In Malaysia, resettlement programs which were much more expensive per settler family than those in Indonesia or Vietnam and succeeded in creating prosperous conditions in most settlement areas, have also wound down.

Far more important these days are the spontaneous flows of migration arising from people’s seeking better education and job prospects in other regions. Such flows have long served – though imperfectly - as an equilibrating mechanism between areas of greater and lesser economic potential (as in the case of the net outflow from the Visayas to both Luzon and Mindanao). They also reflect the seizing of opportunity by ethnic groups with a tradition of mobility (as in the case of Buginese and Butonese from Sulawesi and of Minangkabau from West Sumatra), who have moved widely throughout Indonesia as traders. Though resulting tensions between ethnic and religious groups can become very serious, as evident in Indonesia in 1998 and 1999, no country in the region has moved seriously to restrict such movement.

International migration in the region reflects the same factors influencing internal migration, the difference being that international boundaries are crossed and therefore
some of the movement is illegal. The booming economies of Singapore, Malaysia and Thailand have attracted large numbers of migrants during the 1990s from less fortunate neighbours (Skeldon 1992). Malaysia in 1998 was host to over one million legal foreign workers and about 800,000 illegal workers – totalling not far short of ten per cent of the Malaysian population and a much higher proportion of its labour force. Most of them were from Indonesia and the Philippines. The expulsion of considerable numbers of illegal foreign workers from Malaysia and Thailand, and the threatened expulsion of many more, during the economic crisis of 1997-99 put strains on international relations in the region.

With regard to urbanization, governments in the region formerly adopted a fundamentally negative stance towards the growth of large cities, and towards the rural-urban migration that contributes to this growth. A number of factors underlaid this negative stance: perceptions of urban growth getting ‘out of hand’, with poor rural migrants putting impossible strains on urban infrastructure and contributing to crime and civil unrest; the everyday experience of problems of growth through traffic jams, pollution and noise; and a belief by politicians and planners (many of whom had small-town roots) in the virtues of rural and small-town life. An extreme version of this attitude was evident in the “deurbanization” policies adopted in Vietnam after reunification (Thrift and Forbes, 1985) and – still more extreme – the emptying of the cities by the Khmer Rouge regime in Cambodia. However, a growing sophistication was observable in documents such as Indonesia’s National Urban Development Strategy Report (NUDS, 1985), which accepted the positive contribution of rising levels of urbanization and sought to avoid excessive concentration of urban population in major metropolitan areas by eliminating distortions in macro-economic policy and promoting appropriate regional development strategies. Planners have probably not come fully to grips with the fact that fertility levels in most of the major metropolises of South-East Asia are now far below replacement level (Manila is an exception), thus lowering rates of natural increase and making their future growth almost wholly dependent on immigration.
CONCLUSION

The twentieth century can truly be considered the ‘demographic century’ in South-East Asia, as well as in the world as a whole. The extraordinary five-fold multiplication of population in South-East Asia will never be repeated; indeed, even a doubling in the twenty first century is highly unlikely. The decline in rates of population growth can be expected to continue, but substantial population growth is still in store. Just how substantial will depend on the exact trajectory of fertility and mortality. Quite small differences in fertility rates have cumulative effects on population size that become surprisingly large over time. Nobody can be certain how rapidly Indonesia, Malaysia, the Philippines and Vietnam will reach replacement level fertility. One factor contributing to this uncertainty is the diversity in population policy within the region. Other factors are the diverse social and economic prospects for the different countries, and cultural differences in perceptions of the costs and benefits of children in a particular set of social and economic circumstances. However, fertility declines have been so substantial that sharp changes in population structure are already working their way up the age pyramid. Except in a few countries where fertility remains fairly high, most of the population growth still to come will result from the momentum built into the age structure, a legacy of past high fertility.
Table 1: ASEAN countries: population size, growth rates and population density

<table>
<thead>
<tr>
<th>Population (millions)</th>
<th>Population growth rates (average annual)</th>
<th>Population density (persons per sq. km.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brunei</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td>Cambodia</td>
<td>7.1</td>
<td>7.4</td>
</tr>
<tr>
<td>Indonesia</td>
<td>135.7</td>
<td>166.5</td>
</tr>
<tr>
<td>Laos</td>
<td>3.0</td>
<td>3.6</td>
</tr>
<tr>
<td>Malaysia</td>
<td>12.3</td>
<td>15.4</td>
</tr>
<tr>
<td>Myanmar</td>
<td>30.4</td>
<td>37.5</td>
</tr>
<tr>
<td>Philippines</td>
<td>42.6</td>
<td>55.1</td>
</tr>
<tr>
<td>Singapore</td>
<td>2.3</td>
<td>2.6</td>
</tr>
<tr>
<td>Thailand</td>
<td>41.4</td>
<td>51.6</td>
</tr>
<tr>
<td>Vietnam</td>
<td>48.0</td>
<td>59.9</td>
</tr>
</tbody>
</table>

Source: United Nations, 1998; Author’s calculations.
Table 2: Total Fertility Rates, percentage change in rates, and percentage decline towards the replacement level, South-East Asian countries, 1965-70 to 1990-95.

<table>
<thead>
<tr>
<th>Country</th>
<th>TFR 1965 – 70</th>
<th>TFR 1990 - 95</th>
<th>% change in TFR</th>
<th>% decline towards replacement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cambodia</td>
<td>6.22</td>
<td>4.90</td>
<td>-21</td>
<td>32</td>
</tr>
<tr>
<td>Indonesia</td>
<td>5.57</td>
<td>2.90</td>
<td>-48</td>
<td>77</td>
</tr>
<tr>
<td>Lao PDR</td>
<td>6.15</td>
<td>6.30</td>
<td>+2</td>
<td>-4</td>
</tr>
<tr>
<td>Malaysia</td>
<td>5.94</td>
<td>3.62</td>
<td>-39</td>
<td>60</td>
</tr>
<tr>
<td>Myanmar</td>
<td>6.00</td>
<td>2.70</td>
<td>-55</td>
<td>85</td>
</tr>
<tr>
<td>Philippines</td>
<td>6.04</td>
<td>4.00</td>
<td>-34</td>
<td>52</td>
</tr>
<tr>
<td>Singapore</td>
<td>3.46</td>
<td>1.75</td>
<td>-49</td>
<td>100</td>
</tr>
<tr>
<td>Thailand</td>
<td>6.11</td>
<td>1.94</td>
<td>-68</td>
<td>100</td>
</tr>
<tr>
<td>Vietnam</td>
<td>5.95</td>
<td>3.30</td>
<td>-45</td>
<td>72</td>
</tr>
<tr>
<td>South-East Asia</td>
<td>5.81</td>
<td>3.05</td>
<td>-48</td>
<td>74</td>
</tr>
<tr>
<td>South-Central Asia</td>
<td>5.91</td>
<td>3.79</td>
<td>-36</td>
<td>56</td>
</tr>
</tbody>
</table>

Figure 1: Trends in total fertility rates, ASEAN countries.

Figure 2: Indonesia’s Age Structure 1970, 1990 and 2010.

Figure 3: Thailand’s population by age and sex, 1990 and 2010.

Figure 4: Total fertility rate and average births in various South-East Asian countries 1960-2000

Figure 5: South-East Asian Countries: Projected Population growth, 1995-2015

Figure 6: Population growth index of 6-11 and 12-17 age groups, selected South-East Asian countries.

Figure 7: Indonesia, Philippines and Thailand: Index of growth of working age groups, 1995-2030

Figure 8: Dependency ratios: total, young and old. Indonesia, Singapore, Philippines, Vietnam and Thailand

REFERENCES


