3 South-East Asian Population History and the Colonial Impact

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Southeast Asia's population history as usually represented is marked by very low growth and low population densities until the late eighteenth century, and by very rapid growth in the nineteenth and twentieth centuries. Its challenge to conventional demographic transition theory is not so much the timing of the upturn in population, since it occurred at about the same time as that in Europe, as its scale and its cause. Until the revisionist writings of the 1960s and subsequently it was believed that the Javanese population had grown by 2.2 per cent a year in the nineteenth century, and even the latest revisions have not been able to get that rate down below about 1.4 per cent (Boomgaard, 1989: 1, 202). A marked reduction appeared to have taken place in mortality without any substantial rise in standards of living.

In the early part of this century colonial writings frequently asserted that this rapid rise in population was the beneficent effect of European rule, and specifically the effect of colonial peace and hygiene in reducing mortality. Modern critiques have not disputed the importance of colonialism, only its beneficence. Clifford Geertz's *Agricultural Involution* (1963) has been the most influential, maintaining that the nature of the Dutch system of forced deliveries of export products (*cultuurstelsel*, roughly 1830–70) set Java on its fateful course of steep population increase without any rise in nutrition, urbanization, industrialization or prosperity. Geertz believed the system may have increased the birth rate as well as decreasing mortality, while Ben White (1973) and Paul Alexander (1984) were inclined to go further and attribute the whole effect to an increase in fertility.

Was this rapid population rise a 'distortion' imposed by colonialism on a pattern which would otherwise have allowed mortality to drop and population to rise only as economic and nutritional conditions improved? As the part of Asia most deeply affected (along with Sri Lanka) by European colonial intrusion, Southeast Asia seems a good place to test whether it was the nature of the colonial impact or other factors which caused the rapid population increase of the nineteenth and twentieth centuries.

There is perhaps enough similarity in the ways Indonesia, Vietnam and Burma were transformed under colonial rule in the period 1870–1940 to justify a term such as 'colonialism' as a systematic body of beliefs and attitudes which had similar

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effects over a range of cultures and states. But it is difficult to go much further back in time, or to think seriously about Malaya or the Philippines, without that model breaking down into very different structures, objectives and effects. The population history of the region was affected by European contact from the sixteenth century onwards, but we should not expect that effect to be uniform or even in the same direction over four centuries, dozens of cultural zones and ten modern countries.

This chapter therefore seeks to look at a longer term from about 1500, to establish some of the features of Southeast Asia's mode of interaction with the West which were most important for its population history. I believe that six phases or periods can be usefully delineated—the first two having low or even negative population growth and the remaining four constituting the modern demographic transition.

1. 1500–1630: economic expansion and military conflict

European ships (as opposed to isolated Europeans) made their first appearance in Southeast Asia in 1509. Two years later the Portuguese commander Albuquerque conquered Southeast Asia's leading entrepôt, the Muslim sultanate of Melaka, inaugurating the period when Europeans could not be ignored as a military and commercial factor in the region.

1511 is however not the turning point it is usually thought to be (particularly by the Euro-centric histories of the past). The arrival of the Portuguese shifted Muslim trade routes away from Melaka and stimulated the rise of a number of new Muslim ports (Aceh, Banten, Patani, Palembang) to replace the one that had fallen to aggressive Christians, but it did not alter the key trends already established in the fifteenth century. These were an increased role of international trade, especially along the spice-trading routes, an increase in commercialization and urbanization, and a steady rise in the strength and centralization of trade-based states (Reid, 1993; Bulbeck *et al.*, 1996).

One consequence of this trend was undoubtedly a relatively high and increasing rate of urbanism. By the end of this period, around 1630, I estimate that Hanoi, Ayutthaya and Mataram (Java) would all have reached populations of 150,000 (as Pegu would have done before its destruction in 1599). In the Archipelago the port-cities of Banten, Aceh, and Makassar would also have reached about 100,000, and half a dozen other cities in the region about 50,000. All these capitals except Mataram, Hanoi and Pegu must have held over ten per cent of the population of the country they dominated. Overall there must have been over a million people living in cities in excess of 30,000 in Southeast Asia in the mid-seventeenth century (Reid, 1993: 73–5). Representing about five per cent of total Southeast Asian population this was a higher rate of urbanism than then prevailed in northern Europe (de Vries, 1976: 154), and also higher than Southeast Asia itself experienced in the late nineteenth and early twentieth centuries. The port-centred

states around the strategic Straits of Malacca demonstrated the highest rates of urbanism, importing much of their rice supply not from their hinterlands but through maritime trade.

These cities were always multi-ethnic agglomerations of different communities clustered around port, market, temple and palace. The cities were spread out by European or Chinese standards, not constrained by city walls even when these were built (as in the Mainland states especially). The habits of Southeast Asians—frequent washing, living in light wood-and-bamboo houses elevated above the ground, and eating meat only immediately after the animal had been killed at a feast—probably made the Southeast Asian cities less unhealthy places than European ones of the same period. Rainfall was heavy in most of these cities, and the large flow of water through and around them served to some extent to clear faeces and rubbish. Nevertheless the relatively high urbanization probably had a negative effect on mortality in the period, in Southeast Asia as in Europe, drawing migrants and captives out of rural villages to crowded cities where disease and death were inherently more likely. There are a few indications of such a pattern in reports of epidemics which wiped out large proportions of some of the urban populations—as much as a third of the people of Kedah (1614) and Banten (1625–6), or 60,000 people in Makassar in 1636 (Reid, 1988: 60–1). Only when European patterns of close-packed stone houses within a constraining wall were introduced to colonial cities such as Batavia and Manila, however, can we say with confidence that death rates exceeded birth rates over a relatively long term.

It is less easy to measure the relative frequency and intensity of war and devastating civil conflict. The only attempts in this direction that I am aware of, for Siam (Battye, 1974: 1) and Burma (Lieberman, 1991) show an already high frequency of warfare in the fifteenth century tending to rise further in the sixteenth and seventeenth. Northern Vietnam suffered a terrible period of internal warfare in the second half of the sixteenth century, and southern Burma a horrendous blood letting in the 1590s, which substantially reduced population in both areas (Li Tana, 1992: 15–27; Reid, 1993: 282–3, 297). In the Archipelago the fifteenth century was one of constant war in Java, the only area we can document so early. In all of these cases the advent after 1509 of European firearms, and of relatively more ruthless European tactics in using them, seems to have intensified the trends of the fifteenth century by rendering wars more murderous. The Europeans did not reverse the direction of change. Firearms of Chinese and Middle Eastern type had already been introduced in the fourteenth and fifteenth century (Lieberman, 1980: 211; Reid, 1993: 220–2), but became much more effective in Portuguese hands. Most of the non-Muslim states used Portuguese as specialist gunners and shock troops by about 1550, and their presence on both sides of Burma-Siam conflicts, for example, made these more costly of human life.

Overall we can do little more than guess for this period that there were some drastic losses of population as a result of war and disease in particular localities such as northern Vietnam and southern Burma in the late sixteenth century. These losses

were probably at least balanced by growth of population in the most flourishing centres which could maintain internal peace and attract or coerce immigrants, probably including Bali, Aceh (northern Sumatra), and central Siam up to the disaster of 1567. The western impact cannot be said to have had any marked influence on this pattern except to intensify it. Since Southeast Asia was already heavily exposed to the commercial networks of Eurasia, Europeans are unlikely to have introduced new diseases.

2. 1630–1750: crisis

This period of economic growth and politico-military concentration came to an end in the middle of the seventeenth century, for a complex of reasons which include the success of the Dutch East India Company (VOC) in monopolizing important branches of trade.

The VOC was the most advanced capitalist institution of its time when founded in 1602, with a capital of six million guilders and a charter to monopolize Dutch trade to Asia and as far as possible to use its strength to shut out all competition. By the 1620s it had monopolized the world supply of nutmeg, and by the 1650s of cloves. By mid-century it had a majority stake in cinnamon and pepper, and was alone, in company with a quota of Chinese merchants, able to trade in the important Japanese market. Its Asian capital at Batavia (Jakarta) was much the largest port of Southeast Asia, and the Company proceeded to conquer its two major rivals—Makassar in 1666–9 and Banten in 1682. This onslaught, at a time when Southeast Asia's overall trade was in marked decline, created very difficult conditions for that large section of society which had come to live by commerce. In particular the urban centres lost much of their population, especially in the Indonesian archipelago (Reid, 1993: 302–3). Even Spanish Manila, which had reached a peak of prosperity in the 1620s and '30s, was forced to live on only a third as much trade wealth by the 1650s (Reid, 1993: 289).

Evidence is accumulating for a population decline in the mid-seventeenth century which was not limited to the cities, however. In the Spanish-controlled portions of the Philippine Archipelago (lowland Luzon and the Visayas) there appears to have been a 35 per cent loss in population between 1591 and 1655, and a probable continued decline until the 1680s.[1] In Ambon and the adjacent Lease

[1] I continue to be grateful to Norman Owen for refinement of the figures of *tributos* (tax-payers) in Spanish records presented in Reid 1993: 294. Beyond the decline from 166, 903 *tributos* in 1591 to 108,277 in 1655, 106,600 were recorded for 1665 and only 78,000 in 1686 according to O.D. Corpuz's reading of the evidence which Phelan (1959: 100) had first presented but in arbitrarily modified form. This would represent a 53% drop in population between 1591 and 1686, some of which has to be attributed to a loss of Spanish control. Linda Newson (1998: 25–7) argues for an equally large decline between 1565 and 1591, brought about by conquest, ill-treatment, and epidemics.

Islands (the then clove centre of the 'spice islands'), under relatively tight Dutch control, there was a drop of seventeen per cent between 1634 and 1674. In the broader but hazier area of Dutch influence, also embracing Buru island and southwest Seram where migration factors were more important, the decline may have been as high as 37 per cent (Knaap, 1987: 101). In the older clove centre of Ternate, despite repeated forced relocations to it of people from other islands, the population fell by the second half of the seventeenth century to about one quarter of what it had been a century earlier, even after making allowance for a Portuguese tendency to exaggerate (van Fraassen, 1987, I: 89–90). In the Minahassa area of northeastern Sulawesi, the data assembled by Henley (forthcoming: 95, 99) appears to show a drastic drop in population from 9,880 fighting men in 1644 to 2,750 in 1669.

It is not yet clear whether these indications of population decline are specific to certain areas unusually affected by war and unwelcome European control, or are more general. In most Southeast Asian cases where questionable data has been assembled into some kind of time series, however, it has pointed to a decline in the mid to late seventeenth century. These cases now include the populous Red River delta of Vietnam and the central heartland of Java (Reid, 1993: 297; Ricklefs, 1986). If this trend does appear to be a general one, we still have the dilemma of whether to attribute it to the undoubted economic downturn, to the bloodshed introduced by new armaments and by the Dutch company's designs on a commercial monopoly, or to the ecological effects of the 'little ice age', still poorly understood for the humid tropics (see further Reid, 1993: 285–98). Boomgaard's careful comparison of the tree-ring and historical evidence for the climatic argument confirm that the period 1660–85 represented the most exceptionally severe trough in the Indonesian Archipelago for dry years, famines, and epidemics (Boomgaard, 1996).

The Southeast Asian export economies remained at a low ebb into the early eighteenth century. Data assembled by the Economic History of Southeast Asia Project in Canberra show that the four key Southeast Asian exports (cloves, pepper, sugar and coffee) reached a peak in value terms in the 1640s which was not surpassed until the 1760s, although there was a gradual recovery after 1700 from the severe slump of the late seventeenth century (Bulbeck *et al.*, 1996). In the Philippines, northern Vietnam and Burma a recovery in population appears to have begun a little before 1700, but in most of the Archipelago what evidence there is tends still downward until the mid-eighteenth century. A decline in the urban concentrations of the previous period would have been beneficial for mortality rates, but the one clear urban 'winner' of the late seventeenth century, Dutch Batavia, 'the queen of the East', was the worst death-trap of all by the 1730s. Raffles (1817: II, App. A) presented data which seem to support his claim for 'An extent of mortality in Batavia, as compared with the number of inhabitants, that was perhaps never exampled, for the same space of time, in any other quarter of the world'. An average of 49,300 deaths a year were recorded in Batavia

in the period 1730–52, from a city population only a little over 100,000 at the beginning of that period and substantially less during the 1740s.[2]

3. 1750–1850: economic expansion, immigration and demographic growth

The upturn of economic activity and population growth between the mid-eighteenth and the mid-nineteenth centuries has only recently been the focus of attention. It was for long obscured by colonial categories, which perceived the decline and fall (1799) of the VOC and the intrusion of the British during the period 1795–1816 as an indication that a new colonial century was beginning around 1800. The disruptions to European data sources caused by the Napoleonic wars have made it harder to see this century as a whole from a Southeast Asian perspective. When the data is accumulated, however, it shows remarkable commercial growth, beginning slowly in the 1760s but reaching exceptionally high levels by any standards between 1790 and 1850. Our accumulation of the four key Southeast Asian exports by value shows annual export growth of between five and six per cent between the 1780s and the 1840s, the highest sustained period of commercial growth in the region before the modern post-1960 era (Bulbeck *et al.*, 1996; Reid, 1997: 60–78). The reasons are essentially fourfold:

1. The collapse of the VOC monopolies was in fact a boon for Southeast Asian exporters. During the Napoleonic period when Britain imposed a blockade which crippled Dutch shipping to the East, the newly-independent Americans more than filled the gap, creating a new free market for pepper and coffee. Indonesian growers responded to the higher prices, especially those of the post-war boom after 1816, by expanding production dramatically.

2. China experienced a period of remarkable economic and demographic growth in the eighteenth century, stimulating both trade and emigration on a large scale to Southeast Asia. Chinese miners and cash-croppers moved in their thousands to open up gold and tin mining throughout the region, as well as planting pepper,

[2] The extraordinary death rate has at last received rigorous attention in a Leiden dissertation by P. H. van der Brug (1995). He concludes that the appalling mortality in Batavia in this period was entirely due to a ferocious and sustained epidemic of malaria tropica, carried by the *Anopheles sundaicus* which bred in brackish coastal fish-ponds permitted adjacent to Batavia only from 1729. From detailed records of the Christian population he is able to show that mortality among the permanently resident population was only 60 to 80 per thousand throughout this period, only about double that of European cities in the period. On the other hand 50% of VOC soldiers newly sent out to Batavia had died within their first year, and 60–70% within their first two years (van der Brug, 1995: 201). This exceptionally high mortality probably also applied to the thousands of Chinese who arrived each year from their non-malarial homeland. A somewhat lower mortality might be expected among the roughly 3,000 slaves brought into the city each year chiefly from eastern Indonesia, some of whom would have been previously exposed to malaria tropica, but most of whom were in a poorer physical condition than the Europeans and Chinese. Overall, in other words, the extraordinarily high burial figures cited by Raffles, for all races, must be attributed primarily to the ravages of malaria among the newly arrived population.

gambier and sugar in hitherto underpopulated areas of Borneo, the Malayan Peninsula, Southeast Thailand and the Mekong Delta. With Beijing finally accepting the overseas activity of its subjects as legitimate in the mid-eighteenth century, many Chinese shippers moved the base of their activities to Southeast Asian ports such as Bangkok, Saigon, Ha Tien, Riau and Brunei, where ships could be built and officials bribed more cheaply than in Chinese ports (Reid, 1993a).

3. The three major Mainland states of Southeast Asia each went through a dynastic collapse in the late eighteenth century—Burma in 1752, Siam in 1769 and Vietnam in 1771. In each case a period of instability and population loss was followed by the rise of a vigorous new dynasty, which unified the country and created internal peace to an unprecedented extent. Until forced into defensive and isolationist postures by colonial pressure in the middle of the nineteenth century, the Konbaung, Chakkri and Nguyen dynasties which respectively ruled these three countries all showed considerable interest in both agricultural intensification and commercial expansion. Peace also came to Java at last in 1755 with the Giyanti Treaty, imposed by Dutch arms on the exhausted Javanese combatants.

4. The European craze for new forms of mild narcotic, notably tea and coffee, and the sugar to sweeten them, transformed global trade in the course of the eighteenth and early nineteenth centuries. As well as the direct effect on Southeast Asian coffee and sugar production, there was an added demand for Southeast Asian goods which could be exchanged against the precious tea from China. This in turn, combined with the other factors above, ensured the rapid success of Singapore (1819) in stimulating local commerce.

These changes appear to have coincided with, and probably in complex ways caused, the first definite shift to sustained higher population growth. The evidence is clearest and strongest where we have colonial records, but should not be thought to be limited to those cases. The evidence of Spanish *tributos* shows a pattern of population recovery beginning in the 1690s, but then of rapid growth after 1735, at a rate of nearly one per cent a year between 1735 and 1800 (Owen, 1987: 9). In the Javanese heartland (Central and East Java minus the Dutch-ruled north coast) the (always controversial) household taxation units known as *cacah* continued to decrease sharply until the peace established by the 1755 Giyanti Treaty, but thereafter recovered swiftly. In a 1987 paper I juggled with *cacah* returns and later contemporary estimates to postulate a growth of one per cent per annum for Java as a whole between 1755 and 1795, and 1.45% between 1795 and 1815 (Reid, 1987: 46). In both periods Boomgaard's (1989: 202) estimates are significantly lower. While we should not place great reliance on particular figures, it is important for our purpose to note that the upward turn of the population curve began with the arrival of relative peace after 1755, not with Dutch control or any particular changes to hygiene or disease control in the nineteenth century.

The wholly independent regimes of Mainland Southeast Asia appear to have undergone a similar growth in population once internal peace was established at

the end of the eighteenth century. In Vietnam the tax records of the two separate (Trinh and Nguyen) regimes in the eighteenth century recorded only 206,311 taxable males in the north in 1713, and 291,930 in the southern half in 1769 (in this case more realistically). The total, even when adjustment is made for gross under reporting or loss of control in the north, can with difficulty be made to reach the 700,940 taxable males recorded by the powerful Lê dynasty in the north alone in the fifteenth century (Lê Thanh Khoi, 1987: 222, 259, 267–8). Only when the Nguyen ruler Gia-Long reunified the country in 1802 and inaugurated a peaceful period did the figures rapidly pass those of the fifteenth century—719,510 taxable males in 1829; 970,516 in 1840; 1,024,388 in 1847 (Woodside, 1971: 158–9).

For Siam we are reliant on nineteenth-century estimates by western visitors and residents, but these certainly rise sharply from Crawfurd's 2.79 million (1822) to Roberts' 3.62 million (1835) to Pallegoix's 5.25 million (1854) and the 8.27 million of the first census in 1911 (Skinner, 1957: 68). Burmese records are better, and appear to indicate very slow long-term growth (no doubt with sharp local rises and falls in the Southeast Asian manner) until the enumeration at the beginning of the Konbaung dynasty in 1783. This detailed list can be compared with later enumerations conducted by the Burmese kingdom in 1802 and 1826, which show a significant rise in population had already begun in the late eighteenth century (Burney, 1842; Trager and Koenig, 1979: 400–21; Lieberman, 1984: 20–2). Thereafter, Judith Richell calculated that the Burmese population continued to increase at rates of around one per cent between 1826 and 1901 (Owen, 1988).

In the Malayan Peninsula, Bangka-Billiton, northern and western Borneo and the eastern side of the Gulf of Thailand, including the lower Mekong area long wasted by warfare, there was also rapid population growth beginning in the late eighteenth century. In these areas Chinese immigration played a crucial role in opening up high-rainfall forest areas to mining and cash-cropping, as well as in building towns like Bangkok, Ha Tien, Saigon, Penang and Singapore. They were followed by migrants from nearer at hand as prosperity was generated around their encampments.

On the other hand most of the remainder of the Indonesian Archipelago, outside Java, remained subject to petty warfare and instability until late in the nineteenth century, and population growth there remained low. In the case of Sumatra there were major setbacks to population. The Dutch colonial wars are well known. Both the Dutch campaign against the Padris in West Sumatra (1830–40) and against the Acehnese in the north (1873–1911) must have cost hundreds of thousands of lives by war and attendant disease and dislocation. Less well known are the effects of the militant Islamic crusade of the Padris themselves into the previously well-populated Batak area to the north of their Minangkabau homeland. Estimates of (Toba, Angkola and Mandailing) Batak population before and after this episode in the 1830s suggest a decline by 30–50%, no doubt caused more by flight, kidnapping, famine and disease than by violent deaths (Castles,

1975: 198). It is clear that the nineteenth century created the sharp imbalance between the populations of Indonesia's two principal islands, Java and Sumatra, which has been only very slowly correcting itself (more by higher Sumatran birth rates than by migration) in the twentieth century.

Population growth rates are both higher and more firmly documented in colonially controlled areas of the nineteenth century. The above evidence suggests that population growth owed something, but by no means everything, to the peace imposed by European rule. The growth began, in every case except the Philippines and 'outer Indonesia' (i.e. outside Java), before colonial rule was established. The essential ingredient would appear to have been peace and stability, which both lowered death rates and raised birth rates. This was brought about by the Nguyen, Konbaung and Chakkri dynasties as much as by the Spanish in the Philippines and the Dutch in Java. There may, however, have been indirect effects of the European presence in bringing this relative stability about. The Javanese rulers certainly knew after 1755 that armed conflicts among them would only benefit the Dutch, and it is likely that similar thoughts discouraged the rulers of Vietnam, Burma and Siam from embarking lightly on the warfare which had formerly been almost constant.

We know too little about the ingredients of this rise in population prior to colonial rule proper. Norman Owen (1988) has assembled figures for crude birth and death rates collected at local levels in the Philippines and Java in the early nineteenth century, which suggest birth rates of 40–48 and death rates of 24–33. Although Boomgaard (1989: 202–4) has increased the weight of evidence for declining death rates as the explanation for the population rise in Java, I endorse Owen's tentative conclusion that the whole change is unlikely to have been attributable to this factor. Southeast Asian warfare was not very costly of lives on the battlefield, since wars were largely conducted to capture rather than kill the scarce resource of manpower. On the other hand they were extremely disruptive to food supplies, to nuptiality and normal marital relations, as people either fled before a raiding force or were carried off by it. The conditions of relative stability and prosperity which much of Southeast Asia enjoyed after 1780 were likely to have increased the birth rate as well as reducing the death rate.

Finally, it appears likely that the revival of commerce in the late eighteenth and early nineteenth centuries encouraged the regrowth of substantial cities, though perhaps not on the scale of Period One (1500–1650). The urban heart of the Burmese kingdom (Amerapura plus Sagaing on the opposite side of the river) embraced ten per cent of the Burmese population at the 1783 enumeration and thirteen per cent in 1802 (Koenig, 1990: 59). Bangkok was also estimated to have had more than ten per cent of Siam's population by many visitors in the early nineteenth century (Skinner, 1957: 68–87). The relatively urban Straits Settlements (Penang, Singapore and Melaka) appear to have held about a third of the Malayan population in the 1830s according to contemporary estimates (Newbold, 1839).

4. 1850–1930: colonially induced 'peasantization'

At different points in the nineteenth century most of Southeast Asia came under direct European control. Only in the Philippines, and to a limited extent in parts of Java and Maluku (the eastern 'spice islands'), had the Europeans previously been much interested in the scattered rural population. This changed as the Dutch subjected the whole of Java in the Java War of 1825–30. The British annexed lower Burma at about the same time and progressively further chunks of Burma and Malaya fell to the British, of Indonesia to the Dutch, and of Indochina to the French. Only the rulers of Siam (modern Thailand) remained by 1900 in control of their own destiny, though subject to the same economic forces and social models as the other regions. Mid-century is an arbitrary turning point for the new period—too late in the case of Luzon and Java, too early in the case of Vietnam, northern Burma and much of Sumatra, Borneo and eastern Indonesia.

The key features of 'high colonialism' in relation to population were the overwhelming emphasis on agricultural production, a plural society in which the majority indigenous populations were encouraged to focus on peasant production, and the constrained nature of cities. Taken together these appear to have encouraged a rapid growth of rural population. We can here only sketch the barest outlines of the argument, much of which is already familiar in the literature.

The colonial authorities of this period had in common a concern to use their Southeast Asian colonies as centres of tropical agriculture, to produce the raw materials which could not be grown in Europe, and to receive in exchange the high value-added products of European manufacture. In each of the colonies they encouraged an intensification of agriculture through European-managed estates of sugar, coffee, tea, rubber and oil palm, as well as the infrastructure to export the produce of small-holders growing coffee, pepper and rubber. Colonial regimes also provided the irrigation, fertilizers, and credits to encourage rice-growers to shift from less intensive dry rice to the more labour-intensive flooded field system. Colonial authorities thought in terms of productivity per hectare of land, since they wanted land made available for export crops. They therefore tended to see the swidden method of slash-and-burn cultivation as wasteful and primitive, where Southeast Asian farmers had appreciated its relatively low labour requirements which had allowed time for cash-cropping, small trade, manufacture (notably of cloth and ceramics), and of course ritual, political and recreational activity, alongside the staple rice production. In Central and East Java peasants were encouraged to intensify rice production so that both fields and labour could also be used for the export crops the Dutch required. Elsewhere a rice surplus was sought where possible, to supply the specialist labour force on the European-managed estates and the cities. In Burma and Vietnam the surplus sustained massive rice exports. By the end of this period the overwhelming majority of Southeast Asians were peasant farmers, most of them engaged in producing rice on flooded fields.

In both pre-colonial and post-colonial Southeast Asia the cities were vast magnets, attracting and often forcing people toward them to serve the needs of the ruling elites, to build beautiful temples and engage in state rituals, but also to produce and distribute the manufactured products that only a concentrated population can efficiently manage. The colonial cities were not of this type. Their ruling bureaucracies were relatively lean and efficient. Access to them of people from the countryside who did not have good reason to be there was discouraged or forbidden. They acted as distribution points through which passed the agricultural exports of the colony and the manufactured imports from Europe, but they produced very little. They were, moreover, relatively alien to the majority population of the colony, since they were dominated by Europeans, Chinese and Indians whose role in the colonial scheme was to keep the wheels of commerce moving while the 'natives' worked peaceably in their rural villages.

The degree of urbanism therefore dropped relatively steeply as population grew in the rice-growing villages. Peter Boomgaard (1989: 111) has pointed out that the proportion of Java's people living in cities of over 20,000 fell from about seven per cent in 1815 to three per cent in 1890. In Burma the trim colonial capital at Rangoon never approached the dominance the precolonial capitals had held either demographically or culturally. Rangoon only barely surpassed the population of the old capital at Mandalay in the 1891 census. Mandalay then still had 170,000 people but was in a process of decline which reduced it to 135,000 in 1931 (Reid, 1993: 68). Only Rangoon showed significant growth in the period, but not in relation to overall population. At the beginning of the high colonial period there was also a de-urbanization trend. The four major cities of Lower Burma—Rangoon, Prome, Bassein, and Moulmein—together accounted for 9.5 per cent of the population in 1861–5 and only 6.3 per cent in 1881 (Saito and Lee, 1999: 16). By 1930 Southeast Asia (except the Straits Settlements) had become one of the world's least urbanized areas, with uncolonized Thailand the only state which still had a large proportion of its population in the capital.

This period saw still higher rates of population increase, generally between 1.5 and 2.5 per cent. Most of the debate about why it took place has centred on Java. Boomgaard (1989: 197) has suggested the de-urbanization of nineteenth century Java as one reason (along with vaccination and communications) why mortality fell during the century—since mortality is generally higher in congested pre-modern cities. Geertz (1963) argued that the necessary intensity of sugar and wet-rice cultivation called forth a higher population, while better communications, infrastructure and so forth lowered mortality. White (1973) held that the labour demands of the cultivation system encouraged Javanese to have more children so as still to be able to get in the essential rice crop; while Alexander (1984) speculated that increased work by mothers in the fields reduced the period of breast-feeding and hence the post-partum abstinence that was linked to it.

Since we have seen that the rise in population both preceded colonial rule and extended far beyond Java, the most convincing arguments will be those that can be

generalized more broadly. These must include some effect of smallpox vaccination, as well as famine-reducing communications, in reducing mortality rates. Above all the somnolent peacefulness which was the objective of colonial administrations everywhere certainly reduced mortality and may have encouraged fertility. Society was exceptionally and enforcedly stable in this period, with the Southeast Asian's propensity to migrate and seek his fortune far from home held in check by elaborate bureaucratic controls resting on the colonial ideology of the self-sufficient and harmonious village community.

It does also seem to be the case that wet-rice agriculture is particularly capable of absorbing (and perhaps evoking) rapid increases in population, as has been demonstrated from societies both within and beyond Southeast Asia (Hayami and Tsubouchi, 1989). A particular contrast in my current research field is that between the wet-rice farming Toba Batak and the dry-rice growing Karo Batak, both sharing a similar culture around Lake Toba in North Sumatra. The Tobas, at least since they have been Christian, have been the most astonishingly fertile of Indonesian peoples, while the Karo have long been among the most restrained, using abortion routinely to keep fertility in check. At the 1930 census it was calculated that the completed family size was five for the Karo and eight for the Toba (Castles, 1975: 192). Since 1970 the Karo have been among the most receptive to family planning programmes, and at the 1990 census Karo women in the 35–39 age group had given birth to an average 3.83 children against 6.44 for the analogous Toba women (BPS, 1992: 78).

It seems to me that the two likeliest explanations for the strikingly higher Toba birth rate are their wet-rice agricultural tradition and their longer exposure to Christianity. There is much evidence for low fertility among animist shifting cultivators in Island Southeast Asia in the first half of this century when birth rates elsewhere were exceptionally high. I have reviewed this evidence before (Reid, 1987: 39–41), and need only reiterate that the 1930 Census in Indonesia, and the 1903 Census in the Philippines, made clear that the lowest figures of both ever born children and surviving children were among animist swidden highlanders in places like Central Sulawesi, Sumba, and the Luzon cordillera. Contemporary Europeans frequently asserted that the reason for these low birth-rates was the extremely heavy work-load of women, which led to miscarriages, exhaustion, and an early cessation of child bearing (Reid, 1987; also Marsden, 1783: 285; Raffles, 1817 I: 70). There are however other features of swidden societies that may be even more relevant to low birthrates. Firstly they were often mobile, with both men and women leaving home for long periods to tend distant gardens, to forage in the forest, to market both cash crops and forest products which supplement income and imports of salt, fish, guns and cloth, or to participate in or take refuge from the frequent raiding that marked many of the societies. Secondly, because swidden cultivators had a more varied pattern of crops including those grown explicitly for the market, both men and women were involved in commerce. Certainly the Karo have long distinguished themselves from the Toba on those grounds. This may help account for the readiness to calculate the profit and loss of having numerous children, and to plan small families deliberately.

Finally, the Tobas generally became committed Protestant Christians in the period 1880–1910, whereas the Karo remained largely animist until the 1960s. In general family sizes have been above the average among Protestant Christians in twentieth-century Indonesia. Improvements in hygiene and midwifery, and disapproval of abortion and promiscuity (which helped produce very high rates of gonorrhea in some animist societies) may have been part of the reason, but I find even more persuasive the presentation of a radically different ethos of a woman's domestic role as understood by middle-class Christians of the late nineteenth and early twentieth century. While Protestant Christian converts probably experienced this most fully from the model of the missionary family, I believe that changes in normative views about the family under the influence of colonialism were (and are) of much broader application. Much as happened in Western Europe in the nineteenth century, an elite view of woman's role as pre-eminently mother and wife has been spreading to ever wider social groups in Southeast Asia in the twentieth century (Hull, 1976, 1982; and for a more theoretical treatment, Rogers, 1981).

In sum, then, colonialism does appear to have distorted the demographic pattern of Southeast Asia in this period, principally by encouraging Southeast Asians to become sedentary farmers. The period in question was one in which infrastructure developed impressively but with little or no gain in incomes per capita. To extend Geertz's phrase, the products of Southeast Asia entered the modern world, but not her people. In comparison with the previous period, population growth accelerated, through markedly reduced mortality and also increased fertility, but without the per capita economic growth and diversification which had marked the earlier period.

5. 1930–1965: new crisis

The high colonial period is conventionally ended with the Japanese occupation of Southeast Asia in 1941–2, which in political terms ended the hold of European colonialism on the region and unleashed the genie of nationalism which would dominate the next period. In economic and demographic terms, however, there is reason to see the great depression of 1929–35 as the beginning of a period of crisis from which the region only recovered in the 1960s. Exports slumped dramatically in the early 1930s, and had barely regained their previous level by 1940. The Second World War and Japanese Occupation caused a total disruption of the export-oriented colonial economies, and wartime controls and mismanagement caused havoc even to the rice-growing sector of the economy. Although recovery was fairly rapid after the war in Malaysia, the Philippines and Thailand, revolutionary upheaval in Indonesia, Vietnam and Burma prolonged the instability which made growth and infrastructural development impossible. Per capita GDP in the 1960s was below that of the 1930s in these three countries (Booth, 1991), though it is possible that a more equal distribution of the remaining income through the

dispossession of European, Chinese and Indian minorities, and in Vietnam of the Vietnamese middle class, may have allowed the majority to live a little better than before. Except for Malaysia/Singapore, however, Southeast Asia emphatically missed out on the post-war boom which brought unprecedented prosperity to the industrialized world in this period.

Meanwhile population growth reached its highest levels, at over three per cent per annum in most of the region. The nationalist regimes which came to power in the 1940s adopted pronatalist policies on the grounds that more people were needed to make the country strong. The hardships of the Japanese Occupation had temporarily caused a sharp rise in the death rate, which for a time even exceeded the birth rate in critical areas such as Java. In the post-war period however there were very high expectations for a better life, as well as some evidence of it in the wider distribution of wealth which had previously been concentrated in European and Chinese hands. Birth rates appear to have risen slightly and death rates dropped in comparison with the high colonial period. Unlike the colonial period, however, the 1940s and 1950s saw a great influx to the cities as colonial controls dissolved, many rural areas became unsafe (notably during the many regional, religious and communist rebellions of 1950–65), and young people sought the rewards of revolutionary struggle and the new education. Urban squalor, rural poverty, political instability and overpopulation seemed to be the lot of this corner of the third world, virtually without solution.

6. 1970– : the miraculous transformation

The happier story of the last three decades is well known, and beyond the scope of this chapter. The economic situation has been transformed, through a combination of more pragmatic policies, political stability, the movement offshore of Japanese and other investment, and the green revolution in agriculture. For the first time Southeast Asian countries have begun exporting value-added manufactured goods (especially electronics, clothing and footwear) which in the 1990s overtook agricultural exports in importance. Per capita growth rates have far exceeded those of the developed world, first in Malaysia, Singapore, Thailand and Indonesia but in the last few years also in the Philippines, Vietnam and Burma. Active family planning programmes have been adopted in all countries except Malaysia, the Philippines and Singapore (more worried about the failure of its affluent population to reproduce itself). Birth rates have fallen dramatically. In the period 1968 to 1985 the total fertility rate (births per woman) in Thailand fell from 6.6 to 3.4, and in Indonesia from 5.6 to 3.3 (Hull and Hatmadji, 1990). The completion of a demographic transition was finally imaginable.

How can this turnaround be understood in relation to the long-term perspective this paper has adopted? Is the present optimistic picture an aberration which may soon collapse in a new round of political chaos, impossible debt burdens and

ecological disaster (of which the financial crisis of 1997–8 was a foretaste)? Or should we rather see the high colonial period as the aberration; an enforced stagnation from which Southeast Asia is only now beginning to extricate itself?

I am more inclined to the second view than the first. In the long term Southeast Asia has to be seen as an open, pluralistic region, a crossroads of goods, people and ideas which has never found it easy to shut itself off from the world outside—Burma being the partial exception. This openness and the unique resources Southeast Asia possessed enabled the region to profit markedly from Periods One (1500–1630) and Three (1750–1850), when the world economy was growing rapidly. The same qualities made the crises of Periods Two (1630–1750) and Five (1930–65) particularly severe, since the region could not insulate itself as Japan (in Period Two) and China were able to do. Nor was Southeast Asia able to resist the imposition of direct colonial rule in Period Four (1850–1930). The colonial regimes believed that they were 'opening' Southeast Asian economies and societies to the world by exporting their produce and building infrastructure. In social and cultural terms the reverse was more nearly the case. As never before Southeast Asians became a peasant people living in rural villages insulated by paternalistic officials and culturally distant traders from the changes that were transforming the world outside.

The crisis of Period Five, although expressing itself as a reaction against Period Four, should perhaps be seen as a necessarily difficult ending of that Period. The nationalist values articulated in the 1940s to 1960s tended to turn colonial values upside down rather than abandoning them. Colonial borders became a sacred part of the new national identity, but allegiance to such borders had to be built through a strident rhetoric of anti-colonialism. But with all the failures of that period, the mass education in which all the new regimes put their hopes can be seen as a success. The new education systems have created new people, relatively assured about their nationality, anxious to move into middle class occupations in the cities, optimistic about progress, prepared to work hard so that they or their children can enjoy the fruits of that progress, and anxious to limit births to make those aspirations possible. The cost of educating children has 'tipped [the balance] heavily against considering children short-term economic contributors' (Hull and Hatmadji, 1990). After the paroxysm of destroying colonialism the region has returned to its role as an open crossroads, where foreign capital, tourists and technologies are particularly welcome. In the globally more integrated world we are now entering, this characteristic is likely again to be a major asset.

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