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SOME ASPECTS OF URBANIZATION AND THE ENVIRONMENT IN SOUTHEAST ASIA

by

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The views expressed in this paper are those of the author and do not necessarily reflect the views and policies of the Asian Development Bank.
FOREWORD

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The paper discusses some aspects of sustainable development, focusing on the relationship between urbanization and the environment in Southeast Asia. It shows that economic growth and accelerating urbanization in Southeast Asian countries are generating urban agglomerations with inadequate infrastructure and basic services, resulting in environmental degradation. It argues that, given population growth, the need for improved living standards and the openness of economies, rapid and sustained economic growth is a necessary but not a sufficient condition for sustainable development; social (including urban management) policies and environmental policy are required to complement economic policy.

After presenting stylized facts regarding urbanization and development in Asia, the paper dwells on Southeast Asian trends in macroeconomic growth and human resource development, which are integral components of, or underlying factors with respect to, sustainable development. The paper then shifts to the question of basic needs and of public services supporting urban human settlements. Finally, a discussion of environmental policy and other closely related policies caps the paper.
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I. INTRODUCTION

1. Urbanization, involving changes in human settlements over time, is commonly perceived as an integral part of the development process in developing Asia, which has been widely touted as the world's most dynamic region especially in the 1980s. Issues of urbanization and spatial development have remained on the forefront. They have also become more varied, largely as a consequence of differential economic performance across countries. For instance, while rapid economic growth in such Asian countries as Taiwan, China, the Republic of Korea, Thailand and Malaysia has resulted in substantial reductions in poverty, income-distributional concerns (across households and regions) in these countries appear to have intensified at the same time that urban congestion and environmental problems have become more pronounced. The less fortunate Asian countries with lower economic growth rates, on the other hand, continue to be hobbled by the usual problems of poverty, unemployment, and rural backwardness besides resource depletion, urban congestion and environmental decay.

2. Although dealing with spatial imbalances has been considered by many as neither a necessary nor a sufficient condition for improving socioeconomic welfare, there appears to be an emerging consensus about the need for addressing such imbalances. Some argue that to the extent that these spatial imbalances are attributable to market failure, policy intervention is necessary. Others argue that because these imbalances are caused by historical forces and biases inherent in capitalist systems, even stronger intervention is required. It may be added that inasmuch as there tends to be a strong association between large urban concentrations and environmental degradation, policy intervention is necessary and appropriate. In other words, while policy intervention on spatial imbalances per se may be debatable, such intervention becomes imperative and appropriate when concentrations of population and economic activity (large cities) result in negative externalities (social costs) on the environment.

3. It is not clear whether the perceptions and inclinations of governments regarding spatial concerns, as revealed in the UN (1980 and 1985) surveys, have been translated into appropriate policies, to what extent these policies have actually been implemented and at what level of commitment, and what results have been achieved. Most reports on the effectiveness of spatial and urban policies have generally not been encouraging. The main conclusions thus far seem to be that most developing countries do not really have explicit national spatial strategies qua strategies, that explicit dispersal policies have been largely ad hoc, and that these dispersal policy measures have been offset by the more powerful, though perhaps unintended, side effects of macroeconomic and sectoral policies (Richardson 1981; Renaud 1981; Fuchs, Jones and Pernia 1987; Tolley and Thomas 1987).

4. The experience of countries in developing Asia seems to suggest that improvements in urban environment and in prospects for sustainable
development are associated with three policy approaches. The first comprises macroeconomic policies that allow the market mechanism to work and foster institutions, infrastructure and technology which are conducive to labor-intensive growth (see also World Bank 1990). Because these policies have few distortionary effects on the economy, they also tend to have the minimum of spatial biases (in favor of large cities) while promoting rapid economic growth. The second approach concerns the provision of such essential social services as education, health and family planning, especially to the poor. The third approach is represented by urban management policies that specifically address such problems as transport, water and sanitation, and housing.

5. To the extent that rapid economic growth results from appropriate macroeconomic policies, more resources can be made available for social services and urban management, which in turn can be made more effective. But this connection cannot be taken for granted and, therefore, there is a need for strong social policy and urban management policy measures. Given the three sets of policies (namely, macroeconomic, social, and urban management), an effective environmental policy is needed to ensure sustainable development, i.e., “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED 1987:43). Although perhaps existing in name, a real and effective environmental policy has been largely wanting in developing Asian countries in general. In Southeast Asia, environmental policy is just beginning to make an inroad into official and popular consciousness and may take some time to have an impact, unless determined political will quickly evolves from top leadership.

6. This paper attempts to survey issues of urbanization in relation to the environment in Southeast Asia or ASEAN-Four (Indonesia, Malaysia, the Philippines, and Thailand). The central theme is that, given population growth, the need for improved living standards, and economic competition in the international arena, rapid and sustained economic growth is a necessary but not sufficient condition for sustainable development; social (including urban management) and environmental policies are required to complement economic policy. Underlying this theme is the assumption that fundamental and radical restructuring of national economies, let alone the world economy, to suit ecological desiderata is not practicable. It is more

Experience from the region has demonstrated that significant improvements in the social sector may be attained without high levels of GDP. Positive support of education and health need not await the achievement of a high GDP. Most frequently mentioned in this regard are China, Sri Lanka and the southern Indian state of Kerala, all of which have raised major social indicators to levels statistically associated with countries with much higher per capita income levels. Despite obvious resource constraints, these three examples (and other countries from outside the region such as Costa Rica and Jamaica) indicate that, with political commitment and the assignment of a high priority to social sector objectives, major improvements in the overall quality of life are feasible even without rapid economic growth" (ADÉ 1989a: 19).
Likely that the ways of the market economy will continue, and therefore environmental agenda need to be framed in cognizance of this reality.

7. The next section presents stylized facts regarding urbanization and development using data on various countries in Asia to serve as a context for the sub-regional focus of the paper. This is followed by a discussion of Southeast Asian trends in macroeconomic growth and human resource development -- all integral components of, or underlying factors with respect to, sustainable development. The subsequent section then focuses on the question of basic needs and of public services supporting human settlements. The penultimate section discusses the issue of environmental policy and other closely related policies, while the concluding section recapitulates the gist of the paper's argument.

II. URBANIZATION AND DEVELOPMENT IN ASIA

A. Pace and Level of Urbanization

8. Compared with the historical experience of present-day developed countries and the contemporary experience of other world regions, the pace of post-war urbanization in developing Asia has not been extraordinarily rapid. As a consequence, current urbanization levels in Asian developing countries are not high by global standards. As of 1990, the level of urbanization for the world as a whole is estimated to be 43 per cent, for the more developed regions it is 72 per cent, and for the less developed regions 34 per cent. For Asia as a whole, urbanization level is 30 per cent, for Latin America 72 per cent, and for Africa 33 per cent. Given

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It is important to be clear about the distinction between "urbanization" and "urban population growth". According to accepted practice in the literature, "urbanization" is here defined as the rise in the proportion (percentage share) of the total population living in urban places. This connotes a changing balance between rural and urban populations brought about by spatial shifts (migration) of people from rural to urban areas and by differences in the rates of natural increase of population in the two areas. Hence, urbanization -- a structural phenomenon linked to structural economic change -- should not be confused with urban population growth -- a measure of absolute change which refers only to urban areas and has no reference to rural population growth. It is obvious, however, that urbanization and urban population growth are closely related. Corresponding terminology used in this paper also needs clarification. Level of urbanization refers to the proportion (percentage) of the population that is urban at a point in time, while rate of urbanization is the pace of change in the level over time. The latter is also to be distinguished from rate of urban growth which refers to the increase in the number of people living in urban places relative to the number at the start of a given interval.
Asia's vastness and heterogeneity, its relatively low average level actually masks the pronounced variation across sub-regions and countries.

9. In 1990, only the Republic of Korea, had exceeded the 50 per cent urbanization level as 71 per cent of its population was recorded to be living in urban places. All other Asian developing countries (ADCs) are less than 50 per cent urbanized, with the Philippines, Malaysia, and Fiji at around 42-44 per cent urban. Indonesia and Thailand among the middle-income ADCs, and China (PRC), India, Pakistan and Sri Lanka among the low-income ADCs, are in the 20-32 per cent range. Bangladesh and Nepal (low-income ADCs) and Papua New Guinea (middle-income ADC) are at even lower levels of urbanization.

10. What the above implies is that, though urbanization in developing Asia during the earlier post-war decades had not been particularly phenomenal, many countries in the region are likely to urbanize more rapidly in the years to come, with consequent stress on the environment apart from the usual urban problems. Comparative data on the pace of urbanization, as indicated by the annual per cent change in urbanization level and the rural-urban growth difference (URGD), show that Korea experienced rapid urbanization in the 1960s, which peaked in the 1970s and tapered off in the 1980s (Parnia 1988). Bangladesh and Papua New Guinea (PNG) also manifested high rates of urbanization in the 1960s and 1970s -- mainly because they were taking off from very low levels -- but a deceleration over time was apparent. The other Asian developing countries exhibited accelerating urbanization from the 1960s through the 1980s, except China and Sri Lanka.

B. Urban Population Growth and Spatial Concentration

11. What really differentiates contemporary Asian developing countries from the now-developed countries in terms of their historical experience is urban population growth. Not only are the rates of urban growth in Asian developing countries considerably higher, absolute population increases are also much "larger" due to bigger population bases. It can also be said that contemporary Asian urbanization is qualitatively different in the sense that problems associated with urbanization are bigger and more complex. These problems include unemployment and underemployment, absolute poverty, inadequate infrastructure, housing and basic social services, and environmental degradation.

12. Another distinctive phenomenon in Asian developing countries is the marked concentration of population and economic activity in one or a few large cities, resulting in more intense problems of human settlements and the environment. This is often referred to as urban primacy and the prima city is typically the national capital. Thailand is well known to have the highest spatial concentration in Asia, with roughly two-thirds of its urban

3/ The latter measure is actually better because it is less dependent on the urbanization level itself.
population and a preponderant share of economic activity located in the
Bangkok metropolis. Other highly concentrated countries are Korea (41 per
cent of urban population in Seoul), the Philippines (30 per cent in Manila),
and Bangladesh (30 per cent in Dhaka). On the other hand, countries with
low urban primacy are notably China and India (both at 6 per cent) --
undoubtedly because of their huge geographic sizes. Countries that have
evolved deconcentration over time are Sri Lanka (from 29 per cent in 1960
to 16 per cent in 1980) and Nepal (from 41 to 27 per cent) (UNCHS 1987).

C. Factors Associated with Spatial Development

13. There is a well-known general association between level of GNP
per capita and degree of urbanization, but income alone does not offer a
sufficient explanation. Historical and geographic parameters, internal and
international market forces, macroeconomic and sectoral policies, and
explicit spatial policies all have direct or indirect associations with
spatial development and human settlements (Parnia 1982; Tolley and Thomas
1987). It is important to be cognizant of these underlying relationships
in addressing the issue of the environment and sustainable development. To
the extent that spatial development (urbanization and human settlements)
imposes on the environment, some environmental amelioration may be feasible
by operating on the determinants of spatial concentration itself. Given the
seriousness of the environmental problem, this indirect approach should
complement the more direct measures.

14. It was only in the 1970s when Asian developing countries became
sensitive to spatial and urban issues. Explicit spatial policies started to
be discussed and actually found expression in national development plans.
Policy measures to pursue decentralization have taken on various forms,
including investment incentives for lagging regions, controls on industrial
location in and migration to the metropolitan area, integrated area
development, export processing zones, and urban growth centers. Ex-post
evaluations of these measures however suggest, inter alia, that location
controls were fundamentally unsound and investment incentives largely ill-
conceived; that the choice of location for export processing zones was based
not on economic grounds but rather on political considerations; that
integrated area development projects may take more time before they can have
a perceptible impact; or that sufficient resources may not have been
allocated to the designated regional growth centers (Herzlin and Parnia
1987). More importantly, these explicit dispersal policies have been
rendered largely ineffective by the profound spatial bias of earlier
economic policies (including trade, industrial, and agricultural policies).

While the above generalization may apply to Asian developing countries,
some exceptions can be singled out. These include the big countries of
India and China (the latter with strong spatial controls, to boot),
Sri Lanka with its relatively egalitarian policies, and to some extent
also Malaysia with its emphasis on rural development through, e.g., the
FELDA schemes.
15. The preceding section provided the larger context within which trends in Southeast Asia can be better appreciated. Among the ASEAN-Four, Malaysia and the Philippines have about the same level of urbanization at 42 per cent in 1990. Indonesia is about 29 per cent urban while Thailand's urbanization level is 23 per cent. The relatively high level in Malaysia is the consequence of a high urbanization tempo in the 1970s and 1980s that accompanied rapid economic growth and industrialization. Urbanization in the Philippines, however, has not been similarly fostered by high rates of economic growth and industrial transformation. Rather, it has roots largely in the country's Spanish colonial tradition of urbanism through "reduction", by which the natives were resettled from scattered rural communities (barangays) into compact settlements for the purpose of Christianization (Parnia 1977).\(^1\)

16. The comparatively low urbanization levels in Thailand and Indonesia are attributable to their lower initial levels despite high urbanization rates (3.1-3.5 per cent per annum), comparable to that of Malaysia, in the 1970s and 1980s. Although Thailand has a low urbanization level (which is partly a definitional matter), it has an unusually high urban primacy, with over two-thirds of its urban population situated in the Bangkok metropolis. This has been nurtured by the concentration of economic activity in the metropolis -- a consequence of urban-biased development policy (Kongkaw and Tongudai 1984). Also contributing to concentration of population and economic activity in Bangkok is Thailand's geography itself, in the sense that there is no other city in the country with an international port.

17. Urban-biased development policy has also been in operation in varying degrees in Indonesia, Malaysia and the Philippines where roughly a quarter to a one-third of urban population are found in the metropolitan capitals. The comparatively low urban concentration in Indonesia must be related to its large territorial expanse. This can hardly be credited in any significant measure to Indonesia's transmigration program, which has had limited success (Sigit 1984). The relatively moderate urban primacy in Malaysia is the result of slower rural-urban migration, which in turn has been made possible by the rural thrust of its development policy since the late 1960s, including the promotion of regional growth centers since the mid-1970s (Tan and Lai 1984). A major policy instrument in Malaysia has been the development of new land schemes (FELDA), supplemented by such other measures as agricultural extension services, provision of credit and marketing schemes, drainage, irrigation and transport facilities.

\(^1\) The strategy of reduction was also applied to Hispanic America (Reed 1957) so that countries there also exhibit urbanization levels that are high relative to other developing countries.
A common characteristic among the four Southeast Asian countries is the fact that a dominant proportion of urban population resides in large coastal cities. The figures range from just under two-thirds in Malaysia and the Philippines to 77 per cent in Indonesia and as high as 94 per cent in Thailand (UN and ILED 1988). This implies the vulnerability of urban populations in these countries to rising sea level as a result of "global warming".

A. Macroeconomic Growth

19. Paradoxically, environmental problems leading to unsustainable development stem from both economic growth and lack of it. Persistent and widespread poverty contribute to environmental damage just as the imprudent pursuit of narrow economic growth does. This seems called for is economic policy that promotes rapid economic growth while paying serious attention to alleviating poverty and sustaining the environmental resource base. The World Commission on Environment and Development (1987) maintains that such a new development orientation is possible and essential.

20. Improvements in urban environment and chances for sustainable development are greatly facilitated by high rates of economic growth apart from population growth reduction and efficient social and urban management policies. In this regard, Malaysia appears to have currently the best human settlements system and probably also the brightest prospect for sustainable development in Southeast Asia. Malaysia had the advantage of a relatively high GNP per capita of about US$310 in the early post-war years (Table 1A). Over time the Malaysian economy experienced steady economic growth (Table 1B) and structural transformation (including a significant shift from primary to manufactured exports) so that it is now a virtual newly industrializing economy (NIE). Its income per capita of US$1,870 (in 1988) is close to double that of Thailand, nearly triple that of the Philippines, and more than quadruple that of Indonesia. Its urban primacy is relatively moderate and its rural areas are buoyant, while its overall population-resource ratio is comparatively favorable. This puts Malaysia in a class by itself, at least in the Southeast Asian context.

21. It is instructive, however, to compare the economic performances of Indonesia, the Philippines and Thailand since the 1950s to the present. and explore the causes (or correlates) behind the differences in performance (Fernia 1990). Such a review will be helpful in assessing prospects for improvements in urban environment and for sustainable development.

22. A review of early post-war data shows that the Philippines was far ahead of both Thailand and Indonesia in 1950. The Philippines then had

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Although the Malaysian government appeared to have shifted to a pro-natalist population policy in the early 1980s, this has been interpreted more as a Jawi/Jaza policy which aims to raise the weight of Malays in the ethnic structure, especially their participation in government, in the private sector, and in professional circles.
a per capita GDP of US$ 150 which was close to double that of Thailand (Table 1A). As well, the Philippines during the 1950s exhibited the fastest GDP growth in real terms of 8.4 per cent per annum compared with Thailand’s 5.7 per cent and Indonesia’s 3.3 per cent (Table 1B). In subsequent periods, however, the Philippines experienced a gradual slowdown in economic growth, culminating in negative growth rates during 1984-85.

23. The disparities in economic growth in favor of Thailand and Indonesia over the Philippines actually began earlier than commonly perceived. In the 1960s, Thailand’s economic growth accelerated markedly to 7.3 per cent, while the Philippines economy slowed down with a 5.4 per cent growth rate. Indonesia’s growth also picked up to 4.8 per cent during this period. The 1970s saw the best economic performance for Indonesia, both historically and in comparison with the Philippines and Thailand. Indonesia had a GDP growth of 8.0 per cent, while the Philippines had a 5.9 per cent and Thailand a 6.6 per cent growth rate.

24. During the first half of the 1980s, Thailand once again showed the best economic performance among the three countries, although its GDP growth rate this time was lower than those in the 1960s and 1970s (Table 1B). For the Philippines economy, the early 1980s was the worst chapter in its post-war history as it suffered a cumulative decline of about 11 per cent in 1984-85, triggered by a major political crisis. This economic contraction led to an increase in poverty incidence at a time when poverty was on the decline in the other countries of the region. Indonesia, on the other hand, was badly hit by the worldwide recession which was exacerbated by a drastic fall in the price of oil, resulting in a halving of its average growth rate to about 4.0 per cent during the 1980-85 period although poverty was kept from rising. It was Thailand that weathered the hard times of the early 1980s relatively well. This was made possible by timely structural adjustments and economic policy reforms initiated in response to an unfavorable external economic environment (Lee 1988).

25. After 1985, with an improving political climate complemented by some major economic reforms, the Philippines has shown steady economic recovery. GDP growth averaged more than 2.0 per cent per annum in 1985-87 and was recorded at 6.2 per cent in 1988, and 6.0 per cent in 1989. The Indonesian economy has also rebounded with accelerating annual growth rate of under 4.0 per cent in 1985-87, 5.7 per cent in 1988, and 6.5 per cent in 1989. This economic rebound has been spurred by significant reforms in the trade, industrial and financial sectors, which have resulted in, among other things, a lowering of Indonesia’s dependence on oil exports. Meanwhile, Thailand, having had a head start on structural and economic reforms, has continued on a fast track with a record export-led economic growth of 11.0 per cent in 1988 and 10.5 per cent in 1989.

B. Human Resource Development

26. In the array of factors possibly accounting for differential economic performance among countries, one cannot overlook the human resource dimension. Human capital formation is not only an essential ingredient in economic development, it is also a key in breaking the vicious circle of
### A. GNP Per Capita (U.S. $, current prices)

<table>
<thead>
<tr>
<th>Years</th>
<th>Indonesia</th>
<th>Malaysia</th>
<th>Philippines</th>
<th>Thailand</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>..</td>
<td>310</td>
<td>150</td>
<td>80</td>
</tr>
<tr>
<td>1960</td>
<td>90</td>
<td>350</td>
<td>210</td>
<td>170</td>
</tr>
<tr>
<td>1970</td>
<td>90</td>
<td>390</td>
<td>220</td>
<td>210</td>
</tr>
<tr>
<td>1980</td>
<td>430</td>
<td>1,680</td>
<td>680</td>
<td>470</td>
</tr>
<tr>
<td>1985</td>
<td>430</td>
<td>1,370</td>
<td>520</td>
<td>1,000</td>
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### B. Real GDP Growth Rates (average percentage per annum)

<table>
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<th>Years</th>
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<th>Malaysia</th>
<th>Philippines</th>
<th>Thailand</th>
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</thead>
<tbody>
<tr>
<td>1950-60</td>
<td>3.3</td>
<td>3.7</td>
<td>4.4</td>
<td>5.7</td>
</tr>
<tr>
<td>1960-73</td>
<td>4.6</td>
<td>6.0</td>
<td>5.4</td>
<td>7.8</td>
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<tr>
<td>1970-80</td>
<td>8.0</td>
<td>6.4</td>
<td>5.9</td>
<td>6.6</td>
</tr>
<tr>
<td>1980-85</td>
<td>4.1 *</td>
<td>5.3</td>
<td>-0.3</td>
<td>5.7</td>
</tr>
<tr>
<td>1985-87</td>
<td>3.7 *</td>
<td>3.6</td>
<td>2.1</td>
<td>5.0</td>
</tr>
<tr>
<td>1988</td>
<td>5.7</td>
<td>8.7</td>
<td>6.2</td>
<td>11.0</td>
</tr>
<tr>
<td>1989</td>
<td>6.5</td>
<td>7.6</td>
<td>6.0</td>
<td>10.5</td>
</tr>
</tbody>
</table>

\* - GNP growth rate
.. - not available.

poverty and environmental degradation. Human resource development (resulting from investments in education, health, and fertility reduction) enhances one's earning capacity as well as his general understanding of socioeconomic relationships, including the development-environment nexus.

27. The Philippines began the post-war era with a clear edge in terms of human capital base. In 1948 adult literacy rate was already 60 per cent in the Philippines compared with 39 per cent in Indonesia in 1960; in Thailand adult literacy rate was 68 per cent in 1960 when it was 72 per cent in the Philippines. At a more disaggregated level, as much as three-quarters of primary-school-age children were enrolled in the Philippines in 1950, compared with slightly over one-half in Thailand and 29 per cent in Indonesia in the same year. By the late 1960s, the Philippines had practically achieved universal primary education, while Thailand and Indonesia did not achieve universal primary education until about the late 1970s.

28. At the secondary level, school participation rate in 1950 was 22 per cent for the Philippines, 7 per cent for Thailand, and only 3 per cent for Indonesia. Over the period of three and one-half decades, secondary school participation rate tripled in the Philippines (to 68 per cent by 1986), while Thailand, starting from a lower base, quadrupled its secondary school attendance rate to 29 per cent in 1986. More remarkable still was the educational progress made by Indonesia where the enrollment rate in secondary schools surged more than thirteen-fold — to 41 per cent by 1986. This educational stride has greatly helped in the growth and gradual modernization of the Indonesian economy (ILO/UNDP 1983; Pernia and Wilson 1989). The same can be said about Thailand’s educational advancement relative to its economic development, although the relatively slow progress at the secondary education level now appears to be posing a constraint on the Thai economy's further industrialization (Sussangkarn 1989).

29. At the tertiary education level, the Philippines was also far ahead of the other two countries in the early post-war years. About 11 per cent of college-age youth were enrolled in tertiary schools in the Philippines in 1960, compared with 2.0 per cent in Thailand and 1.0 per cent in Indonesia. But Thailand made substantial progress in the subsequent two-and-a-half decades, while Indonesia made lesser progress over the same period. By 1986, Indonesia had a tertiary enrollment rate of only 7.0 per cent, while Thailand had 20 per cent and the Philippines 38 per cent.

30. In the area of health, Thailand and the Philippines were at similar initial levels with Indonesia lagging behind. Life expectancy at birth was 51 years in 1960 for both Thailand and the Philippines, and 41 years for Indonesia. By 1987, life expectancy at birth had risen to 60 years for Indonesia and to about 64 years for the Philippines and Thailand. In terms of the infant mortality indicator (IMR), Thailand had the lowest (103) in 1960 and this fell sharply over time to 39 by 1987.

31. The comparatively advantageous health trend in Thailand was supported by favorable nutrition (Tsuya, et al. 1985), as reflected in relatively high daily calorie supply per capita of 2,101 in 1965, rising to
Moreover, although health personnel availability was higher for the Philippines in the early post-war years, such an advantage was rapidly dissipated through overseas "brain drain." By the mid-1980s, Thailand had the most favorable health personnel supply in terms of physicians and nursing persons. And although the Philippines still had a lower population-physician ratio than Indonesia in 1984, Indonesia had become better off in terms of the availability of nursing persons.

A critical area in which the Philippines has done particularly poorly is fertility reduction. While over the period 1965-87 Thailand had succeeded in bringing down its total fertility rate (TFR) from 6.3 (children per woman) to 2.8, and Indonesia from 5.5 to 3.5, TFR in the Philippines has remained relatively high at 3.9 as of 1987. It would seem that this slower fertility transition has contributed to the gradual erosion of the Philippines' lead in human capital formation. With slower economic growth and faster population growth, it has been difficult to expand educational and health services, let alone improve their quality. This seems to put the Philippines at a relative disadvantage vis-à-vis the environment and development challenge.

7. BASIC NEEDS AND PUBLIC SERVICES

The previous section brought out the underlying relationship between a country’s economic buoyancy and human resource development (education and health improvements), reflecting the availability and efficacy of basic social services which have both direct and indirect impacts on human settlements (urbanization) and the environment. The comparatively robust economic performance of Thailand, Indonesia and Malaysia greatly facilitated the rise in human capital formation, which in turn contributed to higher economic growth rates over time. By contrast, the less impressive growth of the Philippines economy resulted in a deterioration of social services, with unfavorable feedback effects on its growth performance. At the same time, effective population policies in Thailand and Indonesia also contributed to better economic performance and improvements in social services and infrastructure. Progress towards satisfaction of basic needs in Thailand, Indonesia and Malaysia can be gleaned from reported marked reductions in poverty incidence compared with continuing high poverty incidence in the Philippines.

By the same token, countries in South Asia have a handicap, compared with Southeast Asian countries, with respect to the challenge of sustainable development.

In the Philippines, poverty incidence (proportion of families falling below the poverty line) rose from 49 per cent in 1971 to 59 per cent in 1985; in Metro Manila the increase was from 33 per cent to 44 per cent over the same period. The 1988 Income Survey indicated that poverty incidence at the national level dropped back to 49 per cent.
Food supply as indicated by daily calorie supply per capita has improved in Southeast Asia over the past two decades. However, problems of distribution and access remain. These problems tend to become more acute with accelerating urbanization as the structure of demand undergoes two types of changes: (a) shifts in demand for food from low-cost food (e.g., starchy staples) in rural areas to high-cost food (e.g., animal protein and dairy products) in cities; and (b) rising demand for non-food goods such as fuel, housing and transportation (Fernia 1986).

An important welfare implication of these demand changes, particularly insofar as low-income urban households are concerned, is that the per capita cost of food requirements rises and yet the command over food is simultaneously reduced because of competing non-food needs. While food versus non-food purchases are a matter of individual choice, this situation underscores the more difficult bind poor urban households are in compared with rural households. Moreover, there is the phenomenon of encumbrance (access) shifts as households move away from direct and trade (exchange) entitlements to food and fuel in rural areas to only trade entitlements in cities.

Although food demand analysis has had a long tradition, relevant studies have not been done systematically to take account of the independent effect of urbanization. While demand elasticity estimates from these studies can provide a clue to broad patterns or directions, they appear to be deficient as guides to forward-looking food policies especially in countries undergoing or about to undergo rapid urbanization and structural change.

Planning with respect to the food sector has been mainly supply-oriented and has been concerned largely with the aggregate supply of grains (mainly rice), with little regard to the agriculture-environment link. Not surprisingly, the common view is that there is no food problem as yet. Such a view appears to be an oversimplification of a more complex issue. Given significant differences in incomes, needs and preferences among rural, urban, and metropolitan households, and considering their varied responsiveness to food and non-food goods in general as well as to specific food items, a disaggregated approach is required for better planning (Fernia 1986). Moreover, environmental aspects need to be taken into account if long-term food availability is to be ensured.

A highly visible basic need that also remains unmet for large numbers of low-income households in Southeast Asian countries is housing. This problem is made manifest by the continuing presence and further proliferation of squatters and slum dwellers in urban centers. Because these settlements are bereft of even the most basic facilities, they contribute in large measure to urban blight and environmental pollution and endanger the continued livability of cities. While in Malaysia and Thailand there has been some noticeable alleviation of the housing deficiency, in Indonesia low-income housing improvements have been less visible. In the Philippines, the problem appears to have taken a turn for the worse, again
essentially owing to the double squeeze of slow economic growth and high population growth.

19. Estimates of the proportion of urban population living in squatter settlements in Southeast Asian countries are in the order of 23 to 33 per cent. In Metro Manila, for example, the National Housing Authority has estimated the incidence of slum and squatter population to be just under 30 per cent in the mid-1980s (ADB 1989b). Given the higher fertility rates of women in poor households and the slow trickle-down effect of a still feebly economic recovery, the slum and squatter population appears to have increased markedly since then. There seems to be no end in sight to the housing shortage in the Philippines as the projected increase in urban housing demand for 1987-92 is about 1.6 million dwelling units while the government has targeted its urban housing program for only 627,000 units (or 40 per cent of total) during the five-year period (NEDA 1988; ADB 1989b). The projected rural housing demand of some 1.3 million units is expected to be unmet by government assistance as there is no rural housing program to speak of. The total housing need of 1.4 million units does not include the housing backlog which refers to households that are doubled-up in sub-standard units requiring upgrading. The housing issue is thus mind-boggling and clearly calls for innovative and bold initiatives including individual and community self-help efforts and private sector ventures.

40. Current Philippine government housing policy stresses the importance of private sector initiatives to complement public sector efforts. Incentives are being provided to private developers for the production of low-cost housing for the poor. For instance, through the National Home Mortgage Finance Corporation, the risk to private developers of losing their capital investment is substantially reduced.

41. The housing problem in the other countries is similar though perhaps of varying magnitudes. In Indonesia the low-cost housing target was 300,000 units under Rerelita IV (Five-Year Plan IV), with PERUMNAS (National Urban Development Corporation) supplying 140,000 units and the private sector filling in the balance (ADB 1988). The Director General of Human Settlements estimated the accomplishment of PERUMNAS at only 97,200 units and of the private sector at 226,300 units. Stumbling blocks to PERUMNAS's ability to raise production levels include, inter alia, land acquisition and titling, which cause delays of two years or more.

42. The experience of countries in East and Southeast Asia (except city-states Hong Kong and Singapore) suggests that government policy should not concentrate on public construction of shelter. This specific activity is probably better left to private enterprise and to community and self-help undertakings of low-income households. Public intervention in the housing sector is likely to be more effective and less costly if it focuses on the provision of infrastructural services, amenities, and employment opportunities. The effectiveness of such intervention will be greater if service standards are made commensurate with income levels of the intended beneficiaries to facilitate recovery of costs (Linn 1987).
42. Closely linked to the issue of housing is that of water and sanitation. Comparative data on total, urban and rural populations for the early 1980s are given in Table 2, showing Malaysia to be the most advanced in terms of the water and sanitation indicators. Thailand comes next and then the Philippines, although Indonesia evinced marked improvements over the 1980-85 period. The Philippines' marginal gains in access to safe drinking water and sanitation services partly reflect the severe economic recession of the early 1980s.

44. Recent reports indicate that close to two-thirds of the Philippine population are served by water supply systems (ADB 1989b:30). In Metro Manila up to 92 per cent of the population are reported to be supplied by water systems, but in other urban areas only 72 per cent, and in rural areas only 53 per cent, are reached by such systems. The rest have resorted to such other sources as open wells, rain and water cisterns, rivers and streams.

45. The percentages of population in the Philippines reached by water supply systems must have recently fallen, however, especially in low-income communities. During the dry months (January-July) of 1990, for instance, water levels in dams dropped below critical levels owing to drought and the effects of deforestation. This resulted in the curtailment of water supply, with low-income households suffering the most. Moreover, hydro-electricity generating plants were rendered virtually inoperable. With the breakdown of other old power plants, Luzon (including Metro Manila) experienced probably the worst electric power shortage in the past two decades. The situation in the Philippines appears to be one clear warning that the current pattern of economic-demographic growth and of human settlements with little regard to environmental considerations is simply unsustainable.

46. In Indonesia, according to the intercensal population survey (SUPAS 1985), only one-third of urban population had access to piped water supply for drinking and only 20 per cent had access to piped water for bathing and washing (ADB 1988). This was already an improvement over the situation in 1980 when only 26 per cent and 15 per cent had the benefit of piped water for drinking and bathing/washing, respectively. The government's target of supplying piped water to 75 per cent of urban population by 1990 is unlikely to be reached.

47. Given faster economic growth and higher per capita incomes, the proportion of population having access to safe water is higher in Malaysia and Thailand, as shown in Table 2. Latest data indicate that 70 per cent of total population in Thailand, and as high as 83 per cent in Malaysia, have access to safe water (ADB 1990a). In Bangkok, however, because of heavy exploitation of groundwater, large segments of the city near sea level are sinking by five to ten centimeters annually (WRI and IIEED 1988).

48. As regards sanitation, 67 per cent of Philippine households have sanitary toilet facilities, 17 per cent have toilet facilities considered unsanitary, and 16 per cent have no such facilities (ADB 1989b:30). In Metro Manila the proportion of households with toilet facilities is higher,
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but the majority of households are not connected to the Manila central
sewage system and have to utilize individual or community septic tanks.

49. In Indonesia, there has also been some progress in the area of
sanitation between 1980 and 1985. While in 1980, 48 per cent of urban
households had private toilet facilities, in 1985 this proportion had gone
up to 55 per cent; likewise, those with septic tanks increased from 29 per
cent in 1980 to 38 per cent in 1985 (ADB 1988). However, the proportion of
urban households with access to shared or public toilet facilities declined
from 54 per cent to 45 per cent during the five-year period owing to rapid
urbanization. It is estimated that between 75 and 95 per cent of all
waterborne pollution in Indonesian cities is generated by untreated human
waste (WRG and IIED 1988).

50. Solid waste management is another pressure point. Inadequacies
in garbage collection and disposal are becoming more visible in urban
centers of Southeast Asia. In Jakarta, for example, only 25 per cent of
garbage is collected. Daily average waste disposal rates are estimated to
be about 0.50 kg. per person in Manila, 0.60 kg. per person in Jakarta, and
0.55 kg. per capita in Bandung, Indonesia (WRG and IIED 1988). These
compare with 0.37 and 0.35 kg. per person per day in Singapore and Hong
Kong, respectively, and as high as 1.80 kg. per person in New York City.
In Kuala Lumpur and Bangkok, the waste generation rates are likely to be
higher than in Manila or Jakarta because of higher income levels. However,
the capability for solid waste management may be greater in these cities
owing to their higher fiscal capacities and lower proportions of low-income
households.

51. Solid waste management is normally administered by local
governments. Garbage is often collected by government or private
contractors and transported to dumpsites which attract squatter settlements.
In communities without collection services, garbage is burnt or simply
dumped beside streets or in the open, resulting in pollution and health
hazards, clogging of drainage systems and flooding during the monsoon
months. Improper garbage dumping has become a common practice in Metro
Manila because of low budgets for garbage collection and high poverty
incidence. In Bangkok, water pollution in the khlongs and in the Chao Phaya
river emanating from sewage and garbage disposal and industrial wastes is
even more serious than air pollution which tends to be swept by the monsoons
and the land-sea breeze (Phantumvanit and Liengcharoenit 1989). Similarly,
water quality in Manila’s Pasig river and nearby Laguna de Bay has rapidly
deteriorated.

52. Scavenging is a common activity among the poor. For example, in
Bangkok up to 40 per cent of a collection crew’s time is spent sorting and
attaching bottles, cans, plastics, paper, metal sheets, etc. as a sideline
income-generating activity (Yeung 1989). Similarly, in Manila an extra
person accompanies a collection crew to help in scavenging. Income from
recycled materials can be substantial relative to a garbage worker’s formal
wage. Recycling of garbage has been encouraged by governments and NGOs, but
this activity has remained largely unsystematic. There may be room for
Increasing recycling efficiency that would result in greater benefits to the poor.

53. Another basic urban service in Southeast Asian cities that has been showing clear signs of strain on account of rapid urban population growth, industrialization and commercialization is transportation. The availability of transport infrastructure and services has almost always lagged behind demand. The cumulative gap between supply and demand has resulted in heavier traffic congestion, longer average travel time, and deteriorating service quality. Oftentimes, the negative impact of an overall transport crisis is heavier on the poor than on the more affluent segments of the population, as can be witnessed in Metro Manila. Air pollution levels have also increased as the average age of both public and private conveyances tends to be overextended and proper maintenance becomes more difficult. Manila’s sulfur dioxide emissions are higher than those in New York, Los Angeles and Chicago, while its particulate levels exceed those in New York or Tokyo by 30 to 40 per cent (Jimenez and Valenzuela 1989).

54. A World Bank urban sector report on Jakarta estimated that while road traffic increased by more than half in 1973-81, road capacity expanded by only a little more than 20 per cent (World Bank 1984). In Manila, the lag in road capacity response has been reflected in a slowdown in the pace of traffic -- at least 15 kph on nearly a quarter of the primary roads and at less than 10 kph in the Manila city core (World Bank 1982).

55. In Bangkok, the number of private automobiles alone is reported to have increased by 66 per cent, and motorcycles by 190 per cent, during the 1976-81 period (Teung 1989). In Manila, the number of automobiles rose by as much as 170 per cent, and in Jakarta by 23 per cent, during about the same period. Because of the recent economic growth acceleration in Thailand, the vehicle growth rate is likely to have risen much more dramatically. By contrast, there may have been a slowdown in the increase of vehicles in the Philippines, although the absolute volume appears to be stagnating especially in relation to road space. A recent estimate for Indonesia puts the annual increase of the number of motor vehicles at 15 per cent. (ADB 1988).

56. The obvious solution to the transport and traffic problems in Southeast Asian cities is the promotion of mass transit systems and some control over the ownership and use of private automobiles. Apart from being more advantageous to the poor, mass transit is less energy-intensive and less polluting on a per-passenger basis, and thus more in keeping with a sustainable development strategy. Forceful and relentless traffic management can also contribute a great deal to easing congestion and the reduction of average travel time. Bus transport is the most common mode of mass transit in Southeast Asian cities where there has been a mix of publicly and privately provided bus service (Linn 1987). Experience indicates that private provision is more effective, less costly to users and more profitable to operators than public provision of bus service. In Jakarta, Bangkok and Manila, public bus corporations in fact are in serious financial trouble (Linn 1987).
57. An elevated light-rail mass transit (LRT) started to operate in Manila in 1985. It has been heavily used as it runs through a high-density corridor. However, the system cost per passenger kilometer is much higher than the bus system. Although the LRT was originally expected to break even in operating terms, without contributing to capital cost, the public authority in charge has found itself in financial difficulties as fares are hard to adjust upwards. In any case, the government plans to construct two more phases of the LRT also in high-density corridors. In other Southeast Asian cities there are no similar rapid-rail transit systems.

58. Recently, old passenger trains passing through Manila have been rehabilitated to transport commuters. Also, ferry boats through the Pasig river (that cuts across Metro Manila) have been put on stream to help alleviate the transport problem. However, the relief appears unremarkable as the metropolis has grown more rapidly in recent years, in particular, due to in-migration from the provinces. More importantly, the number of automobiles has increased dramatically over the past two years (estimated at close to 150 per cent increase in 1989 alone) - partly a reflection of economic recovery -- while road capacity has hardly increased. What seems called for, as mentioned above, is effective control over the ownership and use of private cars even as the availability of public conveyances is expanded. Such a control can be effected by raising taxes and registration fees on private motor vehicles and taxes on gasoline. The low rate of private automobile ownership in Korea, for example, is largely attributable to very high rates of automobile and gasoline taxation (Linn 1987). Additional revenue could then be used to increase and improve road space besides making traffic management and motor vehicle emission control more effective.

V. ENVIRONMENTAL POLICY

59. Environmental concerns in Southeast Asia are actually not new. In the late 1960s, there already was some nascent discussion of environmental issues accompanying the population problem. However, as in other areas of concern, there has been a long lag in recognizing the environmental problem. Even today appreciation of the problem is still far from complete and widespread. There are two basic reasons for this. First, the environmental problem seems transcendent because its effects are largely subtle, intangible, and long-term in nature. Second, developing countries have more pressing problems to attend to, such as external debt, trade, investment, poverty, and political preoccupations. Environmental concerns are therefore seen as secondary, postponable, or a problem of affluent societies.

10. Yet, in Southeast Asia, environmental problems that were hardly understood in the 1960s and 1970s have become increasingly palpable in the 1980s, in the wake of accelerating industrialization and urbanization. Water, air and noise pollution insidiously harm the health and productivity of urban residents. In the countryside, population growth and poverty exert
pressure on natural resources, e.g., through fuelwood use and slash-and-burn cultivation, leading to deforestation and soil erosion. Additionally, requirements of the construction industry in cities besides export entail rapid exploitation of forests while reforestation efforts are slow to keep up. The fast thinning of forest cover in Southeast Asian countries exemplifies the cumulative environmental decay, contributing as well to "global warming." Apart from deforestation and soil erosion, other critical problems are shifting natural water systems through conversion of mangrove swamps to fishponds, destruction of coral reefs, and depliation of nearshore fisheries through overfishing and destructive fishing techniques.

61. A UN-sponsored panel of experts has just come out with a report expressing alarm over the worsening phenomenon of "global warming". It concludes that worldwide temperatures will rise two degrees in 15 years and more than six degrees by the year 2100, unless something dramatic is done to deal with global warming. It adds that this phenomenon would cause ocean waters to expand, resulting in rising global sea level by some eight inches in the year 2030. To this global problem Southeast Asia has surely contributed its share, and must contribute its share as well to a solution by, among others, putting an end to the destruction of forests and helping eliminate growth in carbon dioxide emissions over the next several years. The alternative would be disastrous to human settlements overall but especially in large urban centers already below sea level, such as large portions of Bangkok, Jakarta and Manila.

62. Governments in Southeast Asia have enunciated their environmental policies. The goal of protecting the environment and conserving natural resources towards sustainable development is common to policies of the various countries. The importance given to this policy goal is exemplified by the establishment of ministries, departments, agencies or councils to deal with environmental matters. But despite these high-level environmental offices, the policy instruments to achieve environmental goals remain largely equivocal, incoherent, and ineffective. This situation can be explained by insufficient appreciation of the problem, conflicts of interest among actors in both the public and private sectors, and powerful lobby groups. Misunderstanding, myopia and selfish interests are commonly at the root of the lack of resolve in, or opposition to, the formulation and implementation of environmental policy instruments. This is illustrated in the Philippines, for example, where the wealthy and politically powerful have been able to put up stumbling blocks on the government's agrarian reform program and efforts to legislate a logging ban.

63. Rising concern about the environment has also led to the formation of various environmental groups (NGOs). In the Philippines, these NGOs

Recent reports indicate that most of the provinces in the Philippines have considerably less than 40 per cent forest cover. This situation has motivated greater efforts at a logging ban. At the time of writing, the debate on the subject of "total" versus "selective log ban" was still raging.
include, inter alia, the Haribon Foundation with the initial aim of protecting the various species of birds, and the National Action for the Restoration of the Environment (NATURE). In Malaysia, the Penang Consumers Association is considered as an influential environmental advocacy group. Despite their enthusiastic prime movers and noble goals, these organizations are often hampered by inadequate funding, including the sustenance of an operational staff. A way to make NGOs more effective is for the government and international funding agencies to utilize them for environmental programs and projects instead of using traditional government agencies. Although this is already happening to some extent, much more can be done with NGOs.

Closely related to environmental policies in Southeast Asia are population policies. While population policies were formulated in the late 60s or early 70s, little thought was given to the population-environment mix as the concern then had to do primarily with speeding up economic growth. Nonetheless, because Thailand and Indonesia have relentlessly and successfully implemented their population policies, they seem to be currently in a better position vis-a-vis their environmental goals than is the Philippines where, by comparison, population policy has largely been a stop-go process.

Although the Philippines was among the first to adopt a population policy (in 1969-70) and was off to a good start in the first half of the 70s, the government’s resolve wavered and implementation began to falter in the late 1970s with the changing leadership of the population program. At the Aquino administration, the policy goal of “keeping population within control so as not to wipe out economic gains” has been officially enunciated but the policy instruments are ill-defined and without sufficient force owing to strong opposition from certain quarters, especially religious groups.

Meanwhile, Malaysia appears to have shifted to a pronatalist migration policy in the early 1980s. But this has been interpreted by many as more a bumiputra policy which seeks to increase the importance of the Malay in society and in nation-building. Moreover, Malaysia has the lowest population (about 18 million) among the four Southeast Asian countries and the lowest population-resource ratio. Overall population densities are 200 (persons per sq. km.) for the Philippines, 108 for Indonesia, and 53 for Malaysia.

Even less well-defined than environmental policy is a human settlements policy (spatial or urbanization policy) in Southeast Asian cities. One of the main problems is that it would have to be an evolving policy in the sense that, to be meaningful and effective, it would have to touch on virtually all aspects of economic and social life. Is necessitated by the very concept of human settlements as “not simply a space but an integrated combination of all human activity processes — work, education, health, culture, leisure, etc. — and the social structure that supports them” (UNCHS 1987: 3).
Hence, a human settlements policy would require policy instruments from virtually all government ministries or departments. If that were possible, the benefits to the environment of well-planned human settlements would undoubtedly be tremendous. A ministry of human settlements once existed in the Philippines under the powerful First Lady of the previous regime. Yet, even with all her power, there was no functional human settlements policy as such but at best fragments of a policy. With a human settlements ministry, it cannot be said that the Philippines has had a better human settlements system than other countries without such a ministry.

Indonesia, Malaysia, and Thailand have also had fragments of a human settlements policy. For instance, Indonesia has had its transmigration program which has been of only limited success in relation to the costs of the program: Malaysia, however, appears to have had more success with its FELDA schemes, as mentioned earlier. Thailand's effort to radially industrialize away from Bangkok by developing the eastern seaboard has also been of limited effectiveness. Additional population increase in the area due to the program over the period 1981-2000 was estimated to be equivalent to just about one year's expected annual growth in Bangkok's population during the same period (World Bank, 1984). Similarly, in the Philippines the results of an industrial dispersal policy have been rather disappointing (Pamila, Padaranga, Hermoso et al., 1985).

In most of Southeast Asia, there have been public housing programs addressed to the residential needs of the poor in cities. These programs have included the relocation of squatters and slum dwellers to new sites, the construction of low-cost housing units to be sold or rented at subsidized rates, and the improvement of sites and services. The relocation approach has often been a failure as relocates tend to drift back to areas from where they have been removed, unless basic services and jobs are made available in the new sites. Subsidized low-cost housing has been financially untenable and quite limited in terms of accommodating the fast-growing numbers of poor people. The situation is different in Singapore and Hong Kong where public housing has been relatively successful as population growth has been kept under control and cost-recovery schemes have been effective (Young, 1987). Improvement of sites and services seems to be the more promising approach although it requires substantial financial resources and organizational skills, which are frequently in short supply in developing countries.

The relative success of the situs-and-services approach and failure of the public provision of low-cost housing suggest that an "enabling" approach is preferable to a "situs-housing" approach. Given the public sector's constraints in terms of both financial resources and organizational expertise, NGOs in addition to community organizations need to be harnessed to address the human settlements problem of the poor. While cooperation between the public sector and private (including non-profit) agencies has been happening in Southeast Asia, experience shows that there is ample scope for increasing private efforts if government agencies only use greater imagination and entrepreneurial drive. At the minimum, the government should give appropriate and clear signals and encouragement.
instead of stifling private initiatives through bureaucratic procedures. By and large, programs of NGOs and community organizations have been more successful than government-directed programs.

VI. CONCLUDING REMARKS

72. The year 1989 was noteworthy for Southeast Asia in that it became the fastest growing region (or sub-region) in the world, surpassing for the first time the economic growth of the newly industrializing economies (NIEs), namely, Hong Kong, Republic of Korea, Singapore, and Taipei, China. Average growth rates of GDP were 7.3 per cent, compared with 5.4 per cent for the NIEs, 4.4 per cent for South Asia, and 3.4 per cent for developing Asia as a whole (ADB 1990b). The economic prospects for Southeast Asia, except for the Philippines at least in the medium term, are bright.

73. Rapid economic growth, however, is taking a heavy toll on the environment. The levels of air, water and noise pollution are evidently on the rise especially in Bangkok, Manila, and Jakarta. The forests in all four countries are disappearing, probably at a faster rate than those of the Amazon (The Economist 1990: 55). Cyanide and dynamite fishing is becoming a common practice especially in countries beset by poverty, unemployment and population pressure.

74. The rapid growth of economic activity and of population continues to be concentrated in the metropolis and a few other large cities in Southeast Asia. This has been the consequence of economic and social policies that have implicitly favored large cities at the expense of agricultural areas and small provincial cities, implying as well that explicit spatial distribution policies have been largely ineffective. But, while large cities in Southeast Asia may continue to be economically efficient, they have become major contributors to the "greenhouse effect". Without important reforms in urban human settlements, their long-term environmental sustainability appears to be questionable. What seems called for is a dual strategy comprising: (a) effective urban management policy measures to enhance the liveability of large cities and stem their

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[These prospects are, however, likely to change depending on when and how the ongoing Middle East crisis will be resolved. It is probable that oil prices will be higher than before and that the world economy is in for an economic slowdown, with dampening effects on international trade. Although this economic slowdown may have some salutary side effects on the environment, it is likely that the poor will be badly hurt and this could result in environmental deterioration, perhaps other than the one that is industry-induced.]

[Not only are forests disappearing in Thailand, the cutting of trees by Thai loggers is reported to have extended to neighboring Burma and Laos.]

environmental degradation, and (b) an earnest policy to foster the development and attractiveness of secondary and small cities.

75. Studies show that the availability of (or access to) infrastructure (power, transport, communications, and water supply) and social services (education and health) exerts a strong influence on the location of economic activity and population (e.g., Townroe 1983; Harris and Parmar 1987). By contrast, direct intervention measures, such as fiscal or financial incentives (subsidies, credit, etc.) or disincentives (bans, penalties, taxes, etc.) are often ineffective and very costly. Even the establishment of industrial estates in isolated places has generally not been very successful in spawning the growth of industries. Inasmuch as the critical determinants of location are the so-called public goods and services, affecting a more sustainable spatial distribution seems well within the scope of government policy, and what is needed, as in other areas of concern, is political will and commitment. The critical issue is no longer just spatial balance per se, but environmental redress and sustainable urbanization.

76. It is also argued that structural economic change need not be accompanied or followed by urbanization (as traditionally understood). Jones (1990: 9-10), for example, asserts: “The earlier analysis of the relationship between urbanization and changing employment structure suggests that the decline in agriculture’s share does not have to be followed by an equivalent increase in urbanization... The off-farm employment may involve a more diversified range of work opportunities at the village level or in nearby rural areas, or it may involve the possibility of moving to urban areas on a daily ‘commuting’ basis or in a regular pattern of temporary migration.” These possibilities, he adds, suggest “that there is considerable scope for policy to influence their (rural-based workers’) options: whether to seek other income-earning opportunities close to home, whether to establish a foothold in the urban employment market, or whether to migrate to the town. Policy can, therefore, determine to some extent the effect of structural economic change on urbanization.”

77. In Southeast Asia, sustainable development appears to be most problematic in the Philippines with sluggish economic growth, rapid population growth, high population-resource ratio, and high poverty incidence and unemployment rates. Compounding these difficulties is an onerous debt burden. By contrast, sustainable development seems to be least problematic in Malaysia with the highest per capita income, buoyant economic performance, low poverty incidence and unemployment rates, and low population-resource ratio. Thailand and Indonesia fall between these extremes, with Indonesia probably better off in the long run owing to its more favorable overall population-resource ratio.

78. A strategy for urbanization and sustainable development should include at least four policy components. The first is economic policy that is conducive to labor-intensive growth and is neutral with respect to spatial development (i.e., not biased in favor of large cities). The second is social policy concerned with the provision of essential social services, such as education, health and family planning, especially for the poor. The
Third component is urban management policy that deals with such problems as import, water and sanitation, and housing -- all key ingredients for the elaboration of human settlements especially in big cities.

While economic growth is necessary for development, it is not sufficient to guarantee the availability of basic social services and physical infrastructure, especially to low-income households. Experience has shown that the benefits of growth have often been inequitably distributed, and that increases in GDP are not always accompanied by improved public services. This is why the second and third policy components are as important as the first. Still, a fourth component -- an environmental policy -- is required for promoting sustainable development.

The four policy components are all equally essential for simultaneously fostering sustained economic growth, poverty alleviation, improved quality of life, and "enhancing both current and future potential to meet human needs and aspirations" (WCED 1987: 46). Although some may conflict with those of another, each taken in its entirety need not be inconsistent with the other if goal attainment does not refer to only one goal but many. It is the responsibility of national leadership to see to it that all these policies are harmoniously towards multiple economic and social objectives including sustainable development. In operational terms, what seems called for is a coordinating ministry or department to provide the needed orchestration of various policy objectives and instruments.
REFERENCES


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