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**EMPLOYMENT AND INCOME GROWTH IN ASIA:
SOME STRATEGIC ISSUES**

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ABSTRACT

Employment and Income Growth in Asia: Some Strategic Issues

This paper examines the economic progress made during the last two decades (1965-85) by some selected countries of Asia: India, Pakistan, Bangladesh, and Sri Lanka in South Asia; Thailand, Malaysia, Indonesia, and the Philippines in Southeast Asia; Korea and Japan in East Asia.

South Asian countries have realized a very slow growth rate in per capita GNP compared to Southeast and East Asian countries. The per capita GNP of Thailand was about twice that of India in 1965. By 1985, Thailand's per capita GNP was more than three times that of India's. Indonesia had about the same level of per capita GNP as that of India in 1965; now it has twice that of India. South Korea's per capita GNP was about three times that of India in 1965, but South Korea raised that level to make it eight times by 1985. The difference in the pace of growth in per capita GNP within South Asia is less dramatic, but yet noteworthy. Bangladesh's per capita GNP was roughly three-fourths that of India's in 1965, but Bangladesh has slipped down to the per capita GNP that is half that of India's in 1985.

Growth in employment roughly corresponds to the growth in production, but there are considerable diversities among countries in sectoral growths in employment. Moreover, available employment statistics do not reflect the degree of underemployment. The performance in growth rates of average income and production seems to bear only a weak but positive association with the alleviation of poverty.

Simultaneous success in economic growth and alleviation of poverty seems to be quite important in developing countries of Asia. It is argued in the paper that an appropriate development strategy is the key to this success. In the context of emerging agrarian structure of most developing Asian countries, particularly in South Asia, such a development strategy must pinpoint priority to agriculture and rural non-farm employment. Agriculture alone is not sufficient for reducing poverty and accelerating growth. Three factors, namely (a) development of rural infrastructure, (b) generation and spread of modern technology in agriculture, and (c) exploitation of international markets through a number of macropolicy measures, constitute the strategic elements of such a development strategy. Some empirical evidences are presented to buttress these arguments.

TABLE OF CONTENTS

I.	INTRODUCTION	1
II.	GROWTH OF INCOME AND PRODUCTION DURING THE LAST TWO DECADES	3
	Growth in Income	3
	Growth in Production	5
	Growth and Poverty	9
III.	GROWTH IN EMPLOYMENT	13
	Employment	13
	Underemployment	18
	Rural Wage Rate	19
IV.	ELEMENTS OF DEVELOPMENT STRATEGY FOR GROWTH AND EQUITY . . .	24
	Rural Infrastructure	30
	Agricultural Technology	36
	Macro Policies	42
V.	A RECAPITULATION OF THE PAST AND PROGNOSIS OF THE FUTURE . .	45

11

**EMPLOYMENT AND INCOME GROWTH IN ASIA:
SOME STRATEGIC ISSUES**

By

Rais uddin Ahmed*

I. INTRODUCTION

The purpose of this paper is to place the long-run historical paths of employment and income in South Asian countries in comparison with some selected East and South East Asian countries in order to bring out the contrast and explore future prospects. It is hoped that the contrast and the underlying forces that sharpened it will generate ideas and provide guidance to the South Asian policymakers in their policies and strategies for accelerating growth. The focus is, therefore, on South Asia even though exploration of historical achievements in other Asian countries provides the backdrop. Attempt will be made to identify strategic factors in the generation of employment and income, and alleviation of poverty. Of the total population in Asia (excluding Asian USSR) of 2.8 billion in 1986, about 1.1 billion were located in South Asian countries. The share of South Asia in the population under a poverty line is much larger than its share in total population. The largest share of world

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poverty is located in South Asia, mostly along the Ganges-Brahmaputra basin (Mellor, forthcoming).

The annual World Development Reports, regularly published by the World Bank, list about 30 countries from Asia. Of these countries, some do not lend themselves to any systematic analysis due to inadequate and unreliable data. Considering these problems, the following countries were selected for comparative analysis:

South Asia : India, Bangladesh, Pakistan, Sri Lanka

South-East Asia: Thailand, Indonesia, Malaysia, Philippines

East Asia : Korea and Japan

The geographic classification, of course, does not entirely but closely follow the classification based on per capita income. On the basis of income, all South Asian countries are in the category of low-income developing countries. In the South-East Asian region, except for Malaysia, which falls in the upper middle-income group, the other three are included in the low middle-income category. South Korea, of course, is in the upper middle income category and emerging rapidly to become a developed nation. South Korea thus will be the second Asian developed country beside Japan. Although Taiwan is not formally shown in any of the above groups, experience of Taiwan will be cited occasionally because of the richness of analytical works on Taiwan that are relevant to the purpose of this paper. South Korea, Taiwan, Hong Kong, and Singapore are the four well-known Asian NICs (Newly Industrialized Countries). Thailand and Malaysia are considered to be the next two in line to join the ranks of Asian NICs in the near future.

Finally, the emphasis in the paper will be on long-term secular growth of income and employment. The problems associated with short-run fluctuations are, therefore, avoided in discussion, even though short-run stability could be an important drag on long-run growth.

II. GROWTH OF INCOME AND PRODUCTION DURING THE LAST TWO DECADES

Growth in Income

The growth rates of GNP per capita during the period 1965-85 for the selected Asian countries are shown in Table 1. The table clearly shows that South Asian countries have realized a very slow growth relative to the rates of South East and East Asian countries. The range of South Asian growth rates in GNP per capita is from 0.4 in Bangladesh to 2.9 in Sri Lanka. Pakistan appears to have achieved a much faster growth in GNP per capita (2.6%) than India (1.7%), even though the population growth rate in Pakistan (3.1%) is about 35 percent higher than the population growth in India (2.3%).

The extra-ordinary performance of most South East and East Asian countries in comparison with South Asia is a fact that should provoke South Asian policymakers to examine their strategies and policies. Of course, the performance of the Philippines is slightly worse than that of Pakistan. The low growth rate in the Philippines is largely the result of slow progress during post-oil crisis era, particularly the 1979-85 period when political instability created an environment of uncertain prospects for investment. Except for the Philippines,

Table 1
Growth Rates in Population and GNP Per Capita
1965 - 85

Countries	Population Growth Rate (%)		GNP Per Capita 1985 (\$)	Growth Rate in GNP Per Capita (% per annum)	Index of Per Capita Income (India = 1.00)	
	1965-80	1980-85			1965	1985
1. <u>South Asia</u>						
India	2.3	2.2	260	1.7	1.00	1.00
Pakistan	3.1	3.1	380	2.6	1.22	1.46
Bangladesh	2.7	2.6	150	0.4	0.75	0.58
Sri Lanka	1.8	1.5	380	2.9	1.15	1.46
2. <u>South East Asia</u>						
Thailand	2.7	2.0	800	4.0	1.94	3.08
Indonesia	2.3	2.2	530	4.8	1.10	2.04
Philippines	2.7	2.5	580	2.3	1.98	2.23
Malaysia	2.5	2.7	2000	4.4	4.49	7.69
3. <u>East Asia</u>						
South Korea	1.9	1.4	2150	6.6	3.10	8.27
Japan	1.2	0.7	11,300	4.7	23.86	43.46

Source: World Bank, World Development Report, 1987

all other countries of South East and East Asia have made remarkable progress. The per capita GNP of Thailand was about twice the per capita GNP of India in 1965. In 1985, Thailand's per capita GNP was more than three times the level of India.¹ Indonesia had about the same level of per capita GNP as India in 1965. Indonesia achieved a level by 1985 that was twice that of India. South Korea's per capita GNP was about three times of India's in 1965 but South Korea raised that level to make it more than 8 times that of India by 1985. The difference in the pace of growth in per capita GNP is noteworthy not only among geographic regions but also among countries within a region. Bangladesh's per capita GNP was roughly three-fourths of India in 1965. By 1985, this difference widened so that per capita GNP of Bangladesh was about half of that of India. In terms of this performance in growth of GNP per capita, Bangladesh in the South Asia group is similar to that of the Philippines in the South East and East Asia groups.

Growth in Production

What has been the contribution of various production sectors in the growth of income as reflected in the GNP growth rates presented above? This is shown in Table 2 that provides a picture of economic

¹International comparison of incomes is fraught with dangers due to differential degrees of distortions in the exchange rate and differential purchasing power of income among countries. The comparisons in the paper, however, reflect some correction for distortions in exchange rate applying purchasing power parity procedure. This procedure corrects only for relative purchasing power but not the differential in absolute purchasing power of income among countries.

Table 2
Economic Structure and Growth Rates in Production
Asian Countries, 1965-85

Countries	Shares in GDP, 1985 (%)			Growth Rates (%)			
	Agriculture	Industry	Services	GDP	Agriculture	Industry	Services
1. <u>South Asia</u>							
India	31	27	42	4.2	2.8	4.4	5.5
Pakistan	25	28	47	5.3	3.0	6.9	6.3
Bangladesh	50	14	36	2.7	1.8	4.0	3.6
Sri Lanka	27	26	47	4.3	3.0	4.9	4.9
2. <u>South East Asia</u>							
Thailand	17	30	53	6.9	4.5	8.4	7.5
Indonesia	24	36	40	6.6	4.0	9.2	7.0
Philippines	27	32	41	4.3	3.9	5.3	3.9
Malaysia	18	32	50	6.9	3.8	7.3	7.3
3. <u>East Asia</u>							
South Japan	14	41	45	9.1	3.8	14.8	8.7
Japan	3	41	56	5.7	1.0	7.9	4.3

Source: World Bank, World Development Report, 1987

structure and growth rates of production in broad sectors in the selected countries.

The growth rates of GDP in Table 2 are not in per capita term. These rates indicate that South Asian countries experienced a pace of growth ranging from 2.7 percent in Bangladesh to 5.3 percent in Pakistan, others falling in between. In Southeast and East Asian countries, the growth rates ranged from the lowest 4.3 percent in the Philippines to the highest 9.1 percent in South Korea. In order to net out the contribution of GDP to the growth in per capita GNP, it is necessary to deduct the growth of per capita foreign factor income (remittances, etc.) from the growth of per capita GNP; the difference being equal to the growth in per capita GDP. This exercise indicates that without foreign remittances, Bangladesh would have no growth in per capita GNP. The growth rate in GDP and GNP would have been the same as the population growth. Pakistan and Sri Lanka both advanced their growth rates of per capita GNP by a fraction of 0.4 attributable to foreign remittances. India's per capita GNP was almost entirely based on GDP; in fact there was a net (very small) outflow of per capita factor income from India. Among Southeast Asian countries, the per capita GNP of the Philippines would have grown by a fraction of 0.7 less than the actual rate if foreign remittances were absent. This of course implies that the growth rate of per capita GDP was smaller than the growth rate of per capita GNP. Similarly, Indonesia advanced its growth rates of per capita GNP by a fraction of 0.5 due to foreign factor earnings. Net

foreign remittances into Thailand and South Korea were negative, implying a larger growth in GDP than GNP.

Sectoral contributions to growth is perhaps a much more significant aspect than the growth in total products. Differential paces of sectoral growth determine the pace of structural change in the economy, and influence the degree of effectiveness on poverty alleviation of growth. It appears from Table 2 that the growth rate of agriculture in South Asian countries ranged from 1.8 in Bangladesh to 3.0 percent in both Sri Lanka and Pakistan and 2.8 percent in India. In contrast, agricultural growth in Southeast Asian nations was faster - ranging from 3.8 percent in Malaysia to 4.5 percent in Thailand. The two East-Asian countries, South Korea and Japan have lower growth rates in agriculture (3.8 for South Korea and 1.0 for Japan) compared to Southeast Asia. But this is what one would expect given the fact that these two countries have already attained a high level of structural transformation of their economies.

Growth rates in industries and services sectors again show that South Asian countries are, in general, lagging far behind the Southeast and East Asian countries and among South Asian countries, Bangladesh is at the bottom and Pakistan at the top of growth records. Growth of these two sectors in Pakistan is more akin to the corresponding growth in Southeast Asian countries than to other South Asian neighbors. On the other hand the growth rates of industries and services sectors in the Philippines are more similar to the growth rates in South Asian countries than its neighbors in Southeast Asia: Philippines' overall pace of slow growth relative to other

Southeast Asian countries can be attributed to its sluggish performance in industries and services sector; its agriculture has maintained a respectable growth rate comparable to other Southeast Asian experience.

Growth and Poverty

What do the foregoing growth statistics really imply in terms of welfare of the people? Has absolute poverty been brought down by successful growth or has it been exacerbated by poor performance in growth? Extensive poverty may be seen as a constraint in adopting appropriate policies to stimulate growth. Similarly, without a fast growth a country may not attain the required capacity to eradicate poverty in the long run. There seems to be an apparent conflict in pursuing the dual goals of growth and equity. It is however thought that initiating the growth process in agriculture and subsequently stimulating the overall growth through labor intensive non-agricultural development, once a breakthrough² in agriculture is achieved, is a strategy that brings the dual goals of growth and equity closer. We shall come back to this question of strategy in a latter section. Let us now examine how the trends of poverty in selected Asian countries stand up to the growth records presented so far.

Unfortunately, estimates of poverty are based on so many controversial assumptions that inter-country comparison is difficult.

² By the term "breakthrough", I mean a trend of growth rate in production higher than the population growth.

Moreover, uniform time series data on poverty are often not available or sufficiently reliable to make clear conclusions on trend of poverty. Estimates of poverty are generally made by defining a poverty line, i.e., an income level that can command a basket of foods equivalent to a given level of calorie. Then counting all households below the poverty line in the scale of income distribution, provides an estimate of poverty ratio. Problems in determination of poverty line, reliability of data on income distribution and effects of various other factors beside calorie intake on the welfare of people, render estimates of poverty and their spatial and intertemporal comparison very vulnerable. Despite these shortcomings, a qualitative picture on the extent and the trend of poverty in Asian countries can perhaps be gleaned from numerous discrete evidences. Most such evidences indicate that poverty in Asia is generally located in the rural area and urban poverty is partly a spillover from rural poverty.

Studies on poverty are quite numerous in India. Desai (1985) shows that percentage of rural population in poverty was about 55 in 1956/57 and declined sharply over the years to reach the lowest level of about 40 in 1960/61. Thereafter the trend began to rise sharply to about 57 percent in 1966/67. The trend of poverty level in rural India began to decline after 1966/67 to reach at about 50 percent by 1968/69. Other studies indicate that poverty trend in India had increased modestly in the first half of the seventies but again declined during the second half of the seventies and substantively in the early eighties (Minhas, et al., 1983, Etienne, 1982, Planning

Commission, 1985). An impression that one gets from reading most of such studies is that poverty level in India fluctuates very widely with fluctuations in production and prices, and that there has been a modest reduction in the trend of poverty in India. Of course, spatial diversities are tremendous and most of the poverty in India is concentrated in Eastern provinces. Evidences from Bangladesh are not that conclusive as in India. Piecing together estimates of poverty in 1963/64, 1973/74, 1975/76 and 1981/82, Osmani (1987) concluded that the trend of poverty had increased over the years. Rahman and Haque (1986) estimated that the proportions of rural people below poverty line (2200 Kcal/Person) were 65 percent in 1973/74, 79 percent in 1981/82, 50 percent in 1983/84 and 47 percent in 1985/86. Even though there appears to have some improvement in poverty levels in the mid-eighties, the long-term deteriorating trend as mentioned by Osmani is probably a correct assessment. That the levels of poverty fluctuate widely is evident from these evidences.

Studies on poverty in Pakistan are not many. A summary of these studies indicates very little change between 1963/64 and 1979/80. The proportions of rural population with calorie consumption below 80% of the norm (2550 Kcal) were 32 percent in 1963/64, 39 percent in 1966/67, 43 percent in 1969/70 and 29 percent in 1979/80 (Irfan and Amjad, 1983). A slight improvement in poverty may be suggestive of this weak trend. The association between growth and poverty alleviation appears to be positive but weak in Pakistan.

Richness of the literature on poverty in Sri Lanka is comparable to that of India. This does not mean that there is less controversy

on the trend of poverty in Sri Lanka than in India or Bangladesh. Sri Lanka has been credited with remarkable social progress during the sixties and the early seventies (Gavan and Chandrashekhara, 1979). Average calorie consumption steadily increased during this period with adequate supply of subsidized food to all. The percentage of population below poverty line (2400 cal/person) was 20 percent in 1969/70, 41 percent in 1978/79, 43 percent in 1980/81 and 41 percent in 1981/82 (Sahn, 1987). This trend is attributed partly to the austerity measures undertaken from 1977.

Empirical evidences on the level and the trend of poverty in some Southeast Asian countries are relatively scant, at least, I have not been able to find many. A number of analysis on Thailand are summarized in (Islam, 1983). The synthesis shows that the rural poverty ratio (persons consuming less than 1980 Kcal per day) came down from 56 percent in 1962/63 to about 32 percent in 1975/76. The robust growth of Thai economy during 1975 through 1985 must have reduced poverty further.

Similarly Malaysia appears to have successfully reduced poverty levels in rural areas quite substantially (Visaria 1973, Anand 1983,). On the other hand, evidences on poverty in the Philippines indicate a rising trend; the incidence of rural poverty in the mid-sixties was 37 percent that went up to about 51 to 60 percent in years of 1972-75 but gradually declined to around 42 percent during 1980-82 (Philippines, undated). As will be shown later, Filipino rural wage rates would tend to indicate a deteriorating trend in poverty there. Indonesian analysis are mainly limited to Java and

poverty level (2050 Cal/person) in rural Java was found to be quite widespread (42 percent in 1978 (Chernichovsky and Meesook 1984)). No evidence on trend of poverty in Indonesia is available.

The evidences on poverty, shaky and sketchy as they are, are perhaps indicative of a weak relation between growth and poverty. Special measures to advance the welfare of the poor can reduce the incidence of poverty as reflected in the levels of poverty in Sri Lanka and India in comparison with Thailand, Philippines, or Indonesia. But such measures divert resources from potential investment for long-term growth in favor of short-term welfare measures. Long-term welfare of the poor is advanced best through labor-intensive strategy of growth. Therefore, the focus of the paper is now turned to the analysis of growth in employment and wages in the same set of countries.

III. GROWTH IN EMPLOYMENT

Employment

Conventional employment statistics of developing countries, as collected through occasional labor force surveys and censuses, do not generally give any indications of the extent of change in under-employment which is the relevant issue on employment in these countries. Nevertheless, the survey and the census data provide useful insight into the sectoral changes in employment. These sectoral changes in employment between 1965 and 1985 are shown in

Table 3
Growth Rates in Sectoral Employment

(Percent per annum)

Countries	Total	Agriculture	Industry	Services
1. <u>South Asia</u>				
India	1.76	1.08	2.90	3.39
Bangladesh	1.94	0.58	3.72	5.10
Pakistan	2.31	1.15	3.49	4.02
Sri Lanka	1.99	0.98	1.99	3.33
2. <u>South-East Asia</u>				
Thailand	2.67	1.71	6.61	4.81
Indonesia	2.19	1.22	5.80	3.23
Philippines	2.74	1.69	2.37	4.52
Malaysia	2.72	-0.93	7.17	6.52
3. <u>East Asia</u>				
South Korea	2.71	-1.1	6.38	4.73
Japan	1.02	-4.67	1.48	2.44

Source: Computed from various Labor Force Surveys and Censuses, reported in ILO Yearbooks.

Table 3. The 1965 situation represents the average of various labor force surveys during 1961-65 and the 1985 situation represents the average of 1980-85; the growth rates are estimated on the basis of linear changes between the two points.

The column of total employment in Table 3 virtually measures the growth in total labor force because of the way the employment is defined. The labor force survey, standardized by ILO rules (for all countries, defines employed persons of certain ages³ who are either (1) working one or more hours for pay or for profit or working 15 hours or more without pay in a family farm or enterprise during the reference week; or (2) not working but who had a job or business from which they were absent temporarily. These surveys result in estimates of unemployment that range from less than one to 7 percent. For example, the unemployment rate in Bangladesh was estimated to be 0.5 percent in the 1983/84 employment survey. Therefore, total growth in employment is almost synonymous with the growth in the labor force. The sectoral rates however provide a picture of how different sectors absorbed the growth in labor force.

The sectoral growth rates in employment indicates that the agriculture of South Asian countries generally failed to absorb labor at the rates the agriculture of Thailand, Indonesia and the Philippines could do. This is primarily because of the slow growth in agricultural production in South Asian countries. There was of

³ Some countries include persons above 10 years and some countries include persons above 15 years in this labor force. For consistency, I have included only those above 15 years for all countries.

course an absolute decline of labor force in agriculture of South Korea, Malaysia, and Japan, as would be expected at these high levels of income and progress in industrialization. The growth rates of labor absorption in the industry of Southeast Asian countries (except the Philippines) and Korea were almost double the rates of South Asian countries. Philippines is more like a South Asian than a Southeast Asian country in this respect. The low growth rate of employment in Japanese industry reflects its increasing capital intensity.

Growth rates of employment in the services sector discern some peculiarity that needs some interpretations. Employment growth in this sector in South Asian countries is not significantly different from the growth rates in Southeast Asian countries. These high growth rates and relatively large shares of services sectors even in low-income economies defy the well-known logic of structural transformation enunciated by Kuznet, who argued that in the process of structural transformation, the share of services sector would be small at low level of income. This share will gradually increase and overtake other sectors in the final stage of structural transformation. But we observe a large share of services sector even at low level of income and a high growth rate of employment in this sector during the initial stage of development. The phenomenon reflects the fact that increased need of rural households, particularly the landless and small farmers, to supplement their agricultural income by non-agricultural income, has been creating pressure for absorption of such needs in the services sector.

Services sector is the residual haven for such households. This argument will be further developed in a latter section.

The pace of growth in employment as shown in Table 3 is a product of growth in production and the nature of production relations in each of the countries. In order to show the effect of the underlying nature of production relation, the employment growth rates are divided by the growth rates in value added. This is shown in Table 4. Table 4 shows the growth rate in employment for one percent change in sectoral value added.

Table 4
Responsiveness of Labor Absorption with Respect to
Value Added in the Economies of Asian Countries

Countries	Agriculture	Industry	Services
1. <u>South Asia</u>			
India	0.38	0.66	0.62
Bangladesh	0.32	0.93	1.41
Pakistan	0.38	0.51	0.63
Sri Lanka	0.33	0.41	0.68
2. <u>Southeast Asia</u>			
Thailand	0.38	0.78	0.64
Indonesia	0.31	0.63	0.46
Philippines	0.43	0.45	1.16
Malaysia	-0.24	0.98	0.89
3. <u>East Asia</u>			
South Korea	-0.29	0.43	0.54
Japan	-4.67	0.19	0.56

Note: Growth Rate of employment divided by growth rate of value added.

Source: Computed from earlier tables

The responsiveness of sectoral employment with respect to changes in their value added is a reflection of not only the differences in technology but also product mix, public interventions, and various other factors. Whatever may be the cause, there are significant differences in the capacity of various economies in labor absorption, particularly in the industries and services sectors. The responsiveness of labor absorption in services sector of Bangladesh and the Philippines contrasts sharply with other countries. It is only in these two countries that employment in services sector increased faster than the growth of production in this sector. In comparison with other South and Southeast Asian countries, the Philippines' industrial sector is also observed to generate quite a low employment (propensity is about half of others) for a given increase in production. This statistics, when seen in the context that the incidence of poverty also increased in these two countries, would tend to support the hypothesis I alluded to earlier. That is the poor seeks shelter in the services sector when employment in industries and agriculture grow slowly relative to the growth of the labor force. This phenomenon reflects the growth in the services sector from the "push-effect" of unemployment elsewhere rather than the "pull-effect" of a strong growth in agriculture and industry.

Underemployment

It was mentioned that the employment statistics from labor force surveys fail to capture the extent of under-employment. But labor force surveys generally generate data that allow to reflect on this

issue. I attempt to provide such a picture of Bangladesh by digging into the survey data. The results are shown in Tables 5 and 6.

In Table 5, the distribution of employed persons by weekly hours of work is shown. It indicates that employed persons work on average about 53 hours a week. Only about 9 to 10 percent of the total employed persons work less than 40 hours a week. Therefore, underemployment by the criterion of the duration of work hours is small. This proves the general notion that poor work hard and for long hours.

In Table 6, the distribution of employed wage and salaried persons is shown by the levels of earnings per week. By this criterion of underemployment (i.e., assuming that persons earning less than the average of about \$5 a week in 1985 prices are underemployed) about 60 to 66 percent of the wage earners are underemployed. The dilemma of defining unemployment and underemployment is obvious. It is, however, clear that the question of employment generation has to be viewed closely with the question of increasing income. It is the productive employment that matters for the welfare of the workers and the growth of the economy.

Rural Wage Rate

Rural wage rates bear immense significance because of its use as indicators of numerous economic changes. Its trend can be an indirect indicator of the trend of poverty when direct measures of poverty are not available. It is a good indicator of the rural labor

Table 5
Distribution of Employed Persons 10 Years and Over by
Weekly Hours of Work
1984-85 Labor Force Survey, Bangladesh

Weekly Hours Worked	Bangladesh (%)	Rural Area (%)
Less than 19	0.4	0.5
20 to 29	2.0	2.3
30 - 39	6.4	6.6
40 - 49	31.0	30.6
50 - 59	33.1	34.1
60 and above	27.1	25.9
Total	100.0	100.0
Average Weekly Hours	52.5	52.6

Source: Computed from 1984/85 Labor Force Survey of Bangladesh

Table 6
Distribution of Wage and Salaried Employment by Weekly
Earnings, 1984/85 Labor Force Survey, Bangladesh

Weekly Earnings (Taka)	Bangladesh (%)	Rural Area (%)
Less than 25	1.9	2.1
25 - 49	4.5	5.1
50 - 74	14.2	16.3
75 - 99	8.4	9.1
100 - 149	30.4	33.4
150 - 199	14.6	14.8
200 - 249	12.4	11.6
250 - 299	4.5	3.1
300 & above	9.1	4.5
Total	100.0	100.0
Average Weekly Earnings (Tk) ¹	153.1	133.4

Note: US\$1 = Taka 31.5 in 1985

Source: Computed from 1984/85 Labor Force Survey of Bangladesh

market; a sharply rising trend in the rural wage rate very often serves as an indication when the question of some mechanization in agriculture should be examined. Wage rate data are generally the sample averages (not weighted) of various regional wage rates. In many places wages of agricultural labor include some payment in kind. Working hours may not also be uniform in all places. therefore, the wage rate data as available from national statistical publications require careful screening. This was not possible in case of a number of countries, particularly in case of Malaysia. The trends of agricultural wage rates for a number of countries are shown in Figures 1 and 2. These are trends of real wage rates, i.e., nominal wage rate deflated by a food price index.

Among South Asian countries, the agricultural wage rate in India shows a slightly falling trend during the first four years of the seventies and then a modest rising trend thereafter. Overall, there is a modest gain in real wage rates of rural India. The agricultural wage rate in Pakistan discerns a moderately high rising trend, even though there are peaks and troughs in the real wage curve. Agricultural wage rate of Sri Lanka shows a sharply rising trend between 1970 and 1979 but a sharply declining trend thereafter. Agricultural wage rate of Bangladesh shows a slightly falling trend but the trend appears to be moving upward during the last 3 years. These trends of real wage rates in various South Asian countries appear to correspond roughly to the trends of poverty and growth rates of agricultural and total GDP presented earlier.

FIGURE 1

Trend of Real Agricultural Wage Rate in South Asian Countries 1970-85

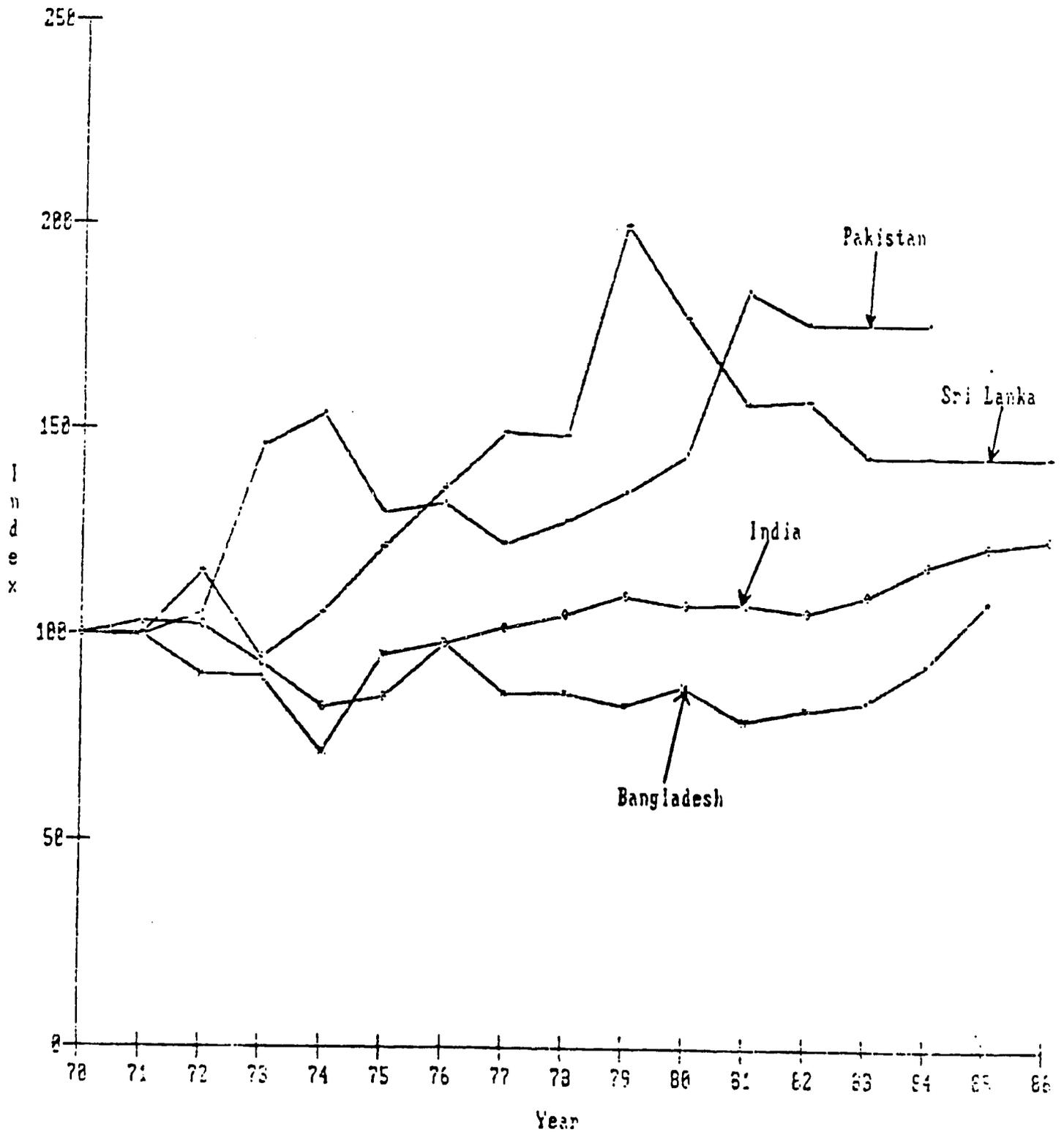
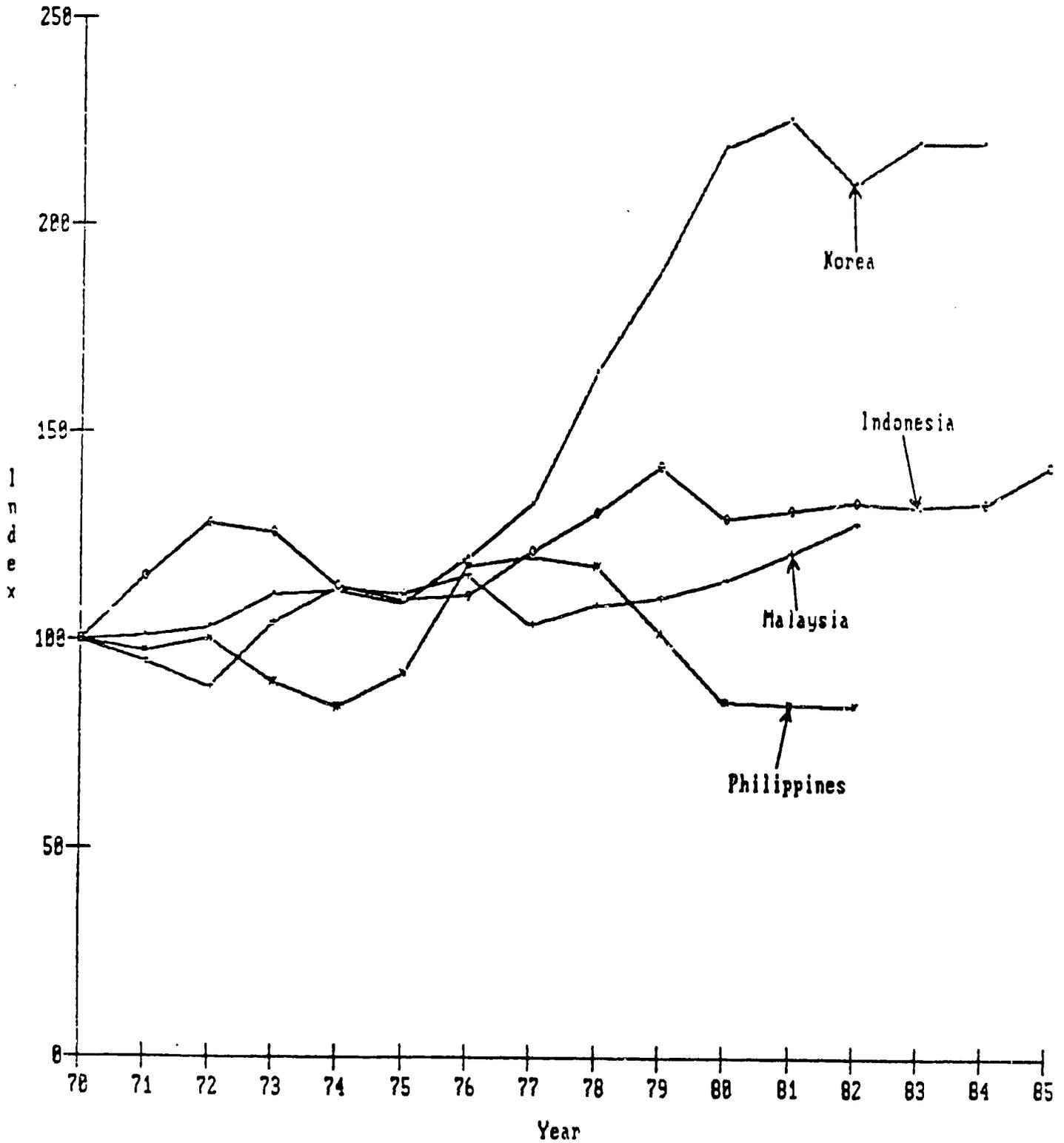


FIGURE 2

Trend of Real Agricultural Wage Rate in Southeast and East Asian Countries in 1970-85



Wage rate data of Southeast and East Asian countries in Figure 2 show that the rate in rural Korea has been rising fast. Real wage rate in rural Malaysia also shows a moderately high increasing trend. The Indonesian trend is also rising, although slower than Malaysia. But the Filipino rural wage rate shows a downward trend, particularly during 1978-84. This is consistent with the poverty trend but appears to be inconsistent with the overall agricultural growth rate of 3.9 percent annually during 1965-85. However, both agricultural growth rates, particularly of the industries and services sectors, had substantially decelerated during the 1978-84 period. Had this deceleration been absent, Filipino growth rates in GDP could have been similar to other Southeast Asian countries, resulting in a possible rising trend in rural wage rates.

IV. ELEMENTS OF DEVELOPMENT STRATEGY FOR GROWTH AND EQUITY

There are numerous stylized models of growth for developing countries that attempt to describe the process of development. For example, Nurkse's (1961) balanced growth model emphasizes on intersectoral balance along the path of development. Hirschman's (1958) imbalanced growth model focuses on the strategic sector that creates maximum multiplier effect through intersectoral linkage. Mellor's formulation of the agriculture led growth is a pragmatic prescription that places initial priority to agriculture as a basis for growth and alleviation of poverty - the twin goals for most Asian

developing countries (Mellor, 1986). The basic logic of this last model is that agricultural growth lays the foundation of demand for non-agricultural goods. A country can of course exploit international demand at a later stage once some labor intensive industrialization has taken roots in the economy. The direct and indirect impact of rapid growth in agriculture alleviates poverty through generation of employment and correct the deficiency in demand necessary for a fast growth in other sectors.

It is argued here that while the development process initiated with rapid growth in agriculture of developing Asian countries is desirable, agricultural income alone, in the context of contemporary agrarian structure in most of these countries, is not enough to sustain the demand necessary for alleviation of poverty and initiation of industrialization. In fact, rural households in most of the successful southeast and east Asian countries had to supplement their farm income by income from non-farm sources in order for the domestic demand to serve as the engine of growth even in the initial phase of development. This issue of increasing non-farm income of rural farm and non-farm households cannot be viewed simply as a matter of industrialization. Increasing income from non-farm sources requires some conscious policy actions, as will be shown later. Non-agricultural income is derived from employment of labor and capital in (a) transport and personal services, (b) trading of agricultural and industrial products, (c) processing of agricultural products, and (d) rural industries. Demand for most of these services and products are influenced by agricultural production and

marketing intensity of agricultural products. Exports can increase such demand as can reduction in import taxes and restrictions on trade. Very often some demand (e.g., demand for transportation of households) remain latent which can be transformed into actuals by certain kind of development.

Studies on agrarian structure in South, Southeast, East Asian countries indicate that landlessness is extensively prevalent in rural areas and farm organization is dominated by the incidence of small farms. Evidence from India indicates that about 78 percent of rural households either owned no land or owned less than 2 hectares in 1977-78 (Singh, 1981). Surveys on farm structure in Bangladesh show that about 32 percent of rural households owned no land except homestead in 1977-78. About 73 percent of the farms were smaller than 2.5 acres in size (Zanuji & Peach, 1979). Data on land ownership in Pakistan show that over two-third of the owners owned less than 5 acres in 1976 (Singh, 1981). This position had improved somewhat after the 1976 land reform but the extent of small farms and landless households still believed to be high in Pakistan. No efforts were made to cite comparable evidences on Southeast and East Asia because of the common knowledge that the incidence of small farms is high also in these regions. Indonesia, particularly Java, parallels Bangladesh in the extent of landless rural households and small farms. The extent of small farms in Thailand, a country considered to have a land-abundance agriculture, is indicative of this general agrarian structure throughout South East Asia. Trairatvorakul (1984) estimated the proportion of farms less than 1.5

hectares in 1975/76 to be 38 percent. In the course of time, the extent of small farms is likely to increase where demographic pressure on land is still high. For example, projection of Bangladesh farm structure to the year 2006, based on past process of transition, indicates that about 85 percent of the farms there would be smaller than 2.5 acres (Ahmed, 1987).

Therefore, the agriculture of Asia is dominated by small farms and there are numerous rural households that have to depend either on wage income in agriculture or on non-agricultural occupations. Agricultural operations and production are very seasonal, particularly in monsoon Asia. The nature of factor proportions in small family farms is such that underemployed labor in slack season can enhance family income by working in non-farm occupations and employment. Some statistics on the extent of non-farm income among rural households of Bangladesh and India are presented in Tables 7 and 8. Table 8 with the Indian data for 1975/76 shows that about 60 percent of total income of the rural households in the lowest income group is earned from non-farm sources, largely as wages. This share gradually declines as income level increases but the share again increases to about 60 percent for the top-income group. It is a sort of U-shaped curve.

Table 7

Shares of Non-Agricultural Income in the Total Income of Rural Households by Technology and Land Ownership Groups, Bangladesh, 1982

Landownership Group ²	Technology Group	
	Underdeveloped ¹	Developed ¹
Landless and Marginal	61.9	43.9
Small	42.5	38.6
Medium	33.3	26.9
Large	24.1	30.0

Source: Hossain, 1988, pp. 121

Notes: ¹Developed villages have 80 percent of total sown area under high-yielding varieties of rice and under-developed villages have 40 percent of sown area under high yielding varieties.

²Landless and marginal less than 0.5 acre; small, 0.5 to 2.5; medium, 2.5 to 5.0 acres; large, 5.0 acres or more.

Table 8

Composition of Income by Income Ranges in Rural India 1975/76

Income Range (Rs)	Share of Agriculture (%)	Share of Non-Agriculture (%)	(Share of Wage Income)
Less than 3,600	40.1	59.9	(45.0)
3,601 - 7,500	58.5	41.5	(16.2)
7,501 - 15,000	64.5	35.5	(2.1)
15,001 - 30,000	74.5	25.5	(0.2)
Over 30,000	40.5	59.5	-

Source: India, National Council of Applied Economic Research Household Income and Its Disposition, New Delhi, 1980.

The Bangladesh data on Table 7 is more interesting than the Indian data because of the fact that the table shows not only the shares of non-agricultural income but also the changes in these shares due to technological change. It appears that in a situation with a modest (40% HYV) spread of modern rice technology, the share of non-agricultural income in the total income of landless and marginal households is about 62 percent. This share gradually declines to 24 percent for large landowning households. With extensive diffusion of modern rice technology (80% HYV), the share of non-agricultural income falls for all groups except the large landowning group. This pattern in areas of Bangladesh where diffusion of modern technology is almost complete, is similar to the U-shape distribution of non-agricultural income that we found in the case of India. I could not assemble similar information on non-farm income for Southeast and East Asian countries. Surveys in South Korea, however, have found that the share of off-farm income in total household income was roughly about 25 percent during 1965-67. This share went up only to about 35 percent by 1979 (Choo, 1982). The share of non-farm income in total household income of rural Taiwan is known to be about 75-80 percent in recent years.⁴

The foregoing discussions are meant to prepare the background for arguing that, south and southeast Asian countries must

⁴Allocation of time and liquid capital between farm and non-farm opportunities is determined by expected return from farming and non-farm activities. This expected returns are influenced by prices of farm products, inputs, wage rate in agriculture, wage rate in non-agriculture, budget constraints and a number of other social factors. The purpose of this section is not to go into these theoretical discussions.

incorporate some mutually reinforcing elements in their development strategy in order to achieve fast growth rates in production and reduction in the levels of poverty. By reinforcement I imply simultaneous positive effect on both agricultural production and non-farm income among rural households. Three factors - (a) rural infrastructure, (b) agricultural technology, and (c) some macro policies - constitute these strategic elements. I shall briefly expand on these elements in the rest of this section.

Rural Infrastructure

Rural infrastructure, defined broadly to include rural roads and communication facilities, financial institutions, electricity, and markets, have an extremely high impact, hitherto unrecognized, on agricultural production, employment, household income (particularly non-agricultural income), consumption pattern, investment behavior among rural households, and various social developments (e.g., health, family planning, education, etc.). Much of what we know and hear about imperfections and failures in markets of rural area can also be traced to backward infrastructure.

The positive effect of better infrastructure on agricultural production results from (a) price effects of output and inputs, (b) diffusion of technology, (c) increased availability of modern inputs, as distinct from the price effect of inputs, (d) expanded access to markets for agricultural products, particularly perishable products, and (e) improved efficiency from

output and input combinations (including specialization) facilitated by better information and access to markets.

Infrastructural development enhances the opportunities of earning non-farm income by farm and labor households. Farm households can set up business and small scale processing units in nearby rural towns using their savings from farm income while still operating farms.

Development of rural infrastructure stimulates dispersion of industrial units, particularly small-scale manufacturing, processing, trade and commercial services from urban to rural areas. When location of jobs is brought closer to village communities, small farm families and landless households get easy access to non-farm jobs, reducing the extent of underemployment. Thus, household income in rural areas increases from both agriculture and non-agricultural sources due to infrastructural development.

Changes in consumption pattern that are brought about by development of rural infrastructure are almost similar to the change brought about by urbanization. For the same level of income, the marginal propensities of consumption of non-cereal foods and manufactured goods, and services are generally higher in infrastructurally developed than underdeveloped areas. The linkage of the demand structure, in generating large multiplier effect in production and employment has been demonstrated by a number of researchers (Yotopolous and Nugent, 1976).

The effect of infrastructural development in rural areas on adoption of birth control measures, delivery of health and medical

services, spread of education and various other social services are complex. Empirical measurements of these effects are particularly rare but the effects, nevertheless, are real. There is a general dearth of empirical studies on rural infrastructure. Currently some evidences are being accumulated to support the diverse and substantive effects of rural infrastructures described above.

Ranis and Stewart, in a comparative study between Taiwan and the Philippines, found that better rural infrastructure in Taiwan contributed to a faster growth of rural-based non-agricultural products in Taiwan than in the Philippines. Despite comparably rapid agricultural growth in the Philippines and Taiwan during the 1960s (averaging about 4.3 percent annually), a much greater impetus to non-agricultural activities was generated in Taiwan, leading to more rapid GDP growth there (Ranis and Stewart, 1987). Another comparative study of Korea and Taiwan, which had the same growth path and historical background but achieved vastly different levels of rural non-farm employment and income, shows different degrees of infrastructural development underlying the differences in rural non-farm income and employment. In Taiwan, about 80 percent of rural income is received from non-farm sources, compared to 38 percent in Korea (1978-80). Seventy percent of farm households in Taiwan had access to electricity in 1980 compared to only 13 percent in Korea. Density of paved roads in Taiwan was 76 kilometers per 1000 square kilometers in 1962 and 215 in 1972, while in Korea it was less than 10 in 1966 and still below 50 in 1975 (Saith, 1986). Binswanger's study on India, based on time-series panel data, measured the

combined effect of roads, market development, electricity, and financial institutions (banks) on agricultural production as very high -- larger than the independent contribution of irrigation (Binswanger, 1988). Some selected results of a comprehensive study of rural infrastructures (roads, markets, financial institutions, etc.) in Bangladesh (Ahmed and Hossain, 1988), are presented in Tables 9 and 10. Table 9 shows that diffusion of modern technology spreads at almost twice the scale in infrastructurally developed than underdeveloped areas. Table 10 shows the effect of infrastructure on household income. The analysis of income indicates that infrastructure development contributed to a 20 percent increase in income from crop production, a 48 percent increase in income from livestock and fisheries production, and an 88 percent increase from wages. In the case of income from business and industries, an increase of household income of only 20 percent was attributed to infrastructure development. More significant than the increase in the level of household income is the distribution of incremental income arising from infrastructure (see main report). Income of landless and small owners increases proportionately more than for large owners for crop income, income from wages, and livestock and fisheries. This pattern is however reversed for income from business and industries. Income from business is largely derived by richer households due to better access of such households to capital. Obviously, the importance of institutional development that is associated with providing credit to the poor combined with

Table 9
Effect of Infrastructure on the Use of Inputs,
Bangladesh, 1982

Input	Unit	Under- developed Infra- structure	Developed Infra- structure	Percent Dif- ference
Irrigation	Percent of owned land	20.5	42.1	105
Area under HYVs	Percent of cropped area	24.5	42.0	71
Fertilizer	Kilograms of material per hectare of cropped land	78	150	92
Labor	Days per hectare of cropped land	115	119	4

Source: Ahmed and Hossain, 1988.

Table 10

Average income from various sources in infrastructurally developed and underdeveloped villages, 1982

Sources	Developed Infrastructure (Tk)	Under-Developed (Tk)	Difference (%)
<u>Agricultural income per acre</u>	5,012	4,179	19.9
Field crops	4,098	3,405	20.4
Homestead and garden crops	914	774	18.1
<u>Livestock and fisheries/household</u>	1,782	1,205	47.9
Poultry	318	243	30.9
Milk	592	407	47.5
Fish	872	555	57.1
<u>Business and industries/household</u>	2,082	1,734	20.1
Business	1,464	1,330	10.1
Industries	618	404	53.0
<u>Wage income per capita</u>	596	317	88.1
From agriculture	190	122	55.7
From non-agriculture	407	195	108.3
<u>Miscellaneous sources/household</u>	3,625	4,013	-9.7

Source: Ahmed and Hossain, 1988

development of infrastructure is critical for enhancing the incomes of the poor through business and industries.

While the case for development of rural infrastructure seems to be very strong, how to organize such development and maintain the created facilities is a question with many controversial issues. It implies a decentralization of power and resources in a real sense in order to enable local political institutions to maintain the facilities.

Agricultural Technology

Agricultural growth in most Asian countries has depended in the past and will be increasingly so in the future, on improved technology. Thailand is the only country that has been able to achieve a fast growth in agriculture based on expansion of cultivated land but such possibilities have already been exhausted there and future growth in crop production will increasingly depend on diffusion of modern technology (Siamwalla, 1987). Fortunately, the state of our knowledge on agricultural technology is much better than that on infrastructure (see, for example, the extensive review of impact of agricultural technology by the CGIAR, 1985). Therefore, I shall limit my discussion to a couple of selected issues that have emerged as critical factors in contemporary agriculture of Asian nations.

Allocation of public resources for generation of technology has favored cereal crops, often, at the neglect of non-cereal food crops, cash crops and non-crop agriculture (livestock and fisheries). The

motivation of attaining self-sufficiency in foodgrains, a phenomenon parallel to import substitution in industries, has driven to this priority. (See appendix table 2 to get a picture of relative growths in foodgrains and total agriculture in some Asian countries). Guidance at operational level to uphold the priority has been provided by the "congruence principle" (i.e., granting priority to products according to their historical contributions to total value added in agriculture). Priority to foodgrains has, however, been consistent with the domestic demand structure in a closed economy context but perhaps not in an open economy context. The priority to technological development in foodgrain has resulted in slow or stagnant growth in non-cereal and non-crop agriculture even though relative prices of non-cereal agricultural products have risen faster than foodgrain prices. For example, the relative prices of non-cereal crops have increased faster than foodgrains (from a common base of 100, the trend index for foodgrain prices in the terminal year was 151 and that for non-cereal crop prices 169) in Bangladesh during 1965-85. But the share of land allocated to foodcrops went up to about 80 percent in the mid-eighties compared to 75 percent in the mid-sixties (World Bank, 1986). Diversification of agriculture, not merely the diversification of crops, will require a major re-examination of policies related to public resource allocation to agricultural research. Agricultural growth can be further accelerated, resulting in further reduction of underemployment in agriculture, by diversification based on dynamic comparative advantage of agricultural products and public policies more tuned to

Table 11
Extent of Adoption of Modern Cereal Technology
in Selected Asian Countries, Average 1983-85

Countries	Kg. of Nutrient Per Ha. Arable Land	Proportion of Sown Area Irri- gated (%)	Proportion of Cereal Cropped Area Under HYV (%)	Rate of Subsidy on Fertilizer (%)
India	47	33	58	19 ¹
Bangladesh	63	20	37	4 ²
Indonesia	117	69	85	37
Philippines	46	60	90	-10
Thailand	26	20	22	5 ³

Source: Ahmed (1986), Paper for the IFPRI/IFDC Workshop in Lomé.

Note: ¹Indian Fertilizer subsidy is more a reflection of subsidy to industry than farmers.

²Subsidy rate was quite high (about 35 to 40%) in Bangladesh before 1982/83.

³Thailand's fertilizer subsidy is a recent practice.

the exploitation of international markets. The focus on international demand implies diversification in research from 'production' technology to 'marketing' technology including processing, preservation and packaging.

Allocation of public resources for diffusion of technology has focused on extension services, seed multiplication, irrigation development, institutional credit, and various assortments of price policies. That rural infrastructure is a primary factor in determining the effectiveness of these other diffusion measures has hardly dawned on policymakers in order to reflect this fact in resource allocation. Increasing the number of extension workers or providing them with motorcycles does not do any good if the extension workers cannot move frequently in the interior of rural areas due to a lack of rural roads.

The extent of diffusion of modern seed-fertilizer technology in some selected countries of South and South East Asia is shown in table 11. Exclusion of Pakistan, Sri Lanka, and South Korea, from the table is not critical for the point I would make from the table. The purpose is to indicate the extent of potential for accelerating foodgrain production through these technologies in the future. Bangladesh and Thailand appear to have the smallest extent of coverage by HYV currently. Therefore, the scope of future expansion may be proportionately larger in these two countries than the others. However, almost all countries appear to have considerable scope of increasing agricultural production through increase in the use of fertilizer. Moreover, to sustain the current yield level in the

existing areas with HYV, the task of replacing old seeds and tackling new soil problems arising from increased use of fertilizer will continue to draw resources from public account.

Among all selected Asian countries, with the exception of Thailand, Bangladesh had achieved the smallest success in exploiting the new technology. Unlike Bangladesh, Thailand, of course, achieved a better growth (in fact the fastest growth rate) in agriculture through extensive cultivation. Why was Bangladesh so sluggish? It has very little to do with unfavorable natural and structural factors that are conventionally associated with Bangladesh. Examination of Bangladesh policy indicates that vacillating policies⁵ on irrigation and weak commitment of the government are primarily to be blamed for the stagnating situation in agriculture (Ahmed, 1988). Allocation to agricultural sector in the public development budget had declined from 31 percent in the mid-seventies to about 18 percent in the mid-eighties. Savings from drastic reductions in fertilizer and food subsidy have not been reallocated to agriculture. A comparative picture of public efforts in the development of irrigation in Indonesia and Bangladesh is shown in Table 12. It is indicative of what the government of Bangladesh could achieve if it had its priority and commitment right as was the case with Indonesia. Bangladesh's foreign assistance to the tune of about 1.5 billion dollars per year during the last decade might not have been as large

⁵Enormous time has been lost in debate on issues like private versus public role and small-scale versus large-scale projects in irrigation development. These issues are not yet resolved reaching to a consensus.

Table 12

Comparative Pace of Growth in Irrigated Agriculture
In Indonesia and Bangladesh

Subject	Bangladesh	Indonesia
1. Irrigated Area as percent of total cropped area		
a. Mid-sixties	7.5	18.7
b. Mid-seventies	12.0	32.5
c. Mid-Eighties	18.2	68.5
2. Index of Real Investment on Irrigation ¹		
a. 1967-70	100	100
b. 1979-82	251	551
c. 1984-88	221	455

Sources: For Indonesia: Rosegrant, and Kasryno, 1988.

For Bangladesh compiled from:

a) World Bank, 1988a, (Statistical Annex).

b) Ahmed and Hossain, 1988

c) Bangladesh Bureau of Statistics, 1985

¹ Investment figures of Bangladesh represent all water sector projects.

as Indonesian oil revenue, but this amount is by no means small for the required task.

Macro Policies

Unable to find a better term, I am using "macro policies" as the caption to make a few points under this general heading. These points may not cover hardcore elements of macro-economics, but they are of critical importance in accelerating growth in developing countries of Asia in general, South Asia, in particular. The first point relates to creation of a congenial "environment" for development of entrepreneurship and the second relates to development of trade infrastructures. Both the factors are instrumental in achieving a fast economic growth through exploitation of international demand. That they are so can be gleaned from numerous comparative studies of Southeast and Asian countries, including the ones by Oshima (1987), Bautista (1983), and a number of recent publications from the Japanese Institute of Development Economics (see for example Hirata and Nohara, 1988). Of course, almost everything is valid somewhere and nothing is true everywhere. The role of backward trade infrastructures and unhealthy environment for development of entrepreneurship due to public controls, in the slow economic growth in South Asia in contrast to Southeast and East Asia, seems to be a valid lesson from comparative studies. The alert entrepreneurs of Thailand lost no time in capturing the gap in world rice export market created by Burmese contraction. When the Thai share in jute market dwindled, they created a market for Thai cassava

in Europe and when that market began to shrink, they adjusted quickly to develop exports in livestock and horticultural products. Thai export of horticultural products increased from 1.2 billion bahts in 1980 to about 4.0 billion bahts in 1986. Export of livestock products (poultry and swine) increased from 0.69 billion bahts in 1980 to 3.3 billion bahts in 1986 (Siamwala, 1987). When under the pressure of rising wage rates labor-intensive industries began to move out of Japan, Korea and Hong Kong, the countries like Thailand and Malaysia were more successful in attracting these foreign investment than any other southeast and south Asian countries (Hirata and Nohara, 1988).

Bhagwati's (1988) observations on the effect of Indian web of controls on trade and industrial development in India is particularly relevant to this discussion. He argues that the iron triangle of politicians, businessmen and bureaucrats has been strangulating the process of growth in trade and industries through a straightjacket of rules and controls. Ironically this was unwittingly espoused by economists and like-minded ideologues who quickly perceived the short-run positive effects but failed to recognize the long-run negative impact on growth arising from abuses of licensing and restrictions. Politics of corruption thrived through alliances among those vested with the power of controls. Politician became addicted to the use of licensing to generate illegal fund for election and then for themselves. Business groups that were already entrenched in the alliance wanted to maintain that strength while the groups with less access to the power wanted liberalization for less hassle, not

genuine competition. Very few bureaucrats could have remained idealistic and not used the power that conferred ability to generate rents.

The relegation of controls does not mean that governments do not have any role to play. Quite contrary, public development of international communication, information centers pertaining to world prices and market prospects and institutionalization of quality inspection can promote long-term development of exports. A simple change of rules can make a world of difference. For example, many countries make a conventional list of exportables keeping an unwritten clamp on the exportability of unlisted products. Every time an exporter comes out with a proposal of exporting an unlisted product he has to seek interpretations from control agencies. A change in the approach by listing only the banned products, keeping an open-ended possibility for export makes a remarkable modification of controls.

The emphasis on congenial environment for entrepreneurial development and trade infrastructure is not to imply that the other trade and exchange rate policies are unimportant. They are important and effects of such policies on exports and imports are well-documented in the literature.

V. A RECAPITULATION OF THE PAST AND PROGNOSIS OF THE FUTURE

This paper examines the economic progress made during the last two decades (1965-85) by some selected countries of Asia - India, Pakistan, Bangladesh, and Sri Lanka in South Asia; Thailand, Malaysia, Indonesia, and the Philippines in Southeast Asia; Korea and Japan in East Asia.

South Asian countries have realized a very slow growth rates in per capita GNP compared to Southeast and East Asian countries. The per capita GNP of Thailand was about twice that of India in 1965. By 1985, Thailand's per capita GNP was more than three times that of India. Indonesia had about the same level of per capita GNP as that of India in 1965; now it has twice that of India. South Korea's per capita GNP was about three times that of India in 1965, but South Korea raised that level to make it 8 times by 1985. The difference in the pace of growth in per capita GNP within South Asia is less dramatic but yet noteworthy. Bangladesh's per capita GNP was roughly three-fourth of India's in 1965, but Bangladesh has slipped down to the per capita GNP that is half that of India in 1985.

These slow growth rates of income in South Asia largely reflect the commensurating slow growth in their production of agriculture, industry, and services sectors. Growth in agriculture of South Asian countries barely kept pace with population growth; Bangladesh was the most sluggish in agricultural growth - the growth rate being almost half of population growth rate. All Southeast Asian countries and Korea have sustained high growth rates in agriculture. In industries

and services sector, the Philippines had the laggard growth in Southeast Asia as Bangladesh was in South Asia. In overall economic growth, Pakistan tops and Bangladesh bottoms the list in South Asia. The comparable ranking in Southeast Asia puts Thailand and Malaysia at the top and the Philippines at the bottom.

Growth in employment roughly corresponds to the growth in production, but there are considerable diversities among countries in sectoral growths in employment. Moreover, available employment statistics do not reflect the degree of underemployment. Measurement by hours of work does not seem to reflect adequately the true nature of underemployed. The degree of underemployment, measured with income criterion, would be quite large as is shown with data from Bangladesh. It is observed that underemployed persons tend to gravitate to the services sector as last havens of livelihood. This is particularly pronounced in the Philippines and Bangladesh where employment in the services sector have increased faster than production.

The performance in growth rates of average income and production seems to bear only weak but positive association with the alleviation of poverty. Poverty data are very sketchy and shaky but nevertheless give some indicative picture. It appears that the trend of poverty might have declined modestly in India and Pakistan but increased in Bangladesh. Sri Lanka started with a very good record on poverty and may have lost some grounds in recent years. Except for the Philippines, all Southeast and East Asian countries have made modest gains in the alleviation of poverty. The Philippines seems to be

falling in poverty alleviation. These sketchy poverty trends are consistent with the trends of real wage rates in agriculture of selected countries.

Simultaneous success in economic growth and alleviation of poverty seems to be quite important in developing countries of Asia. It is argued in the paper that an appropriate development strategy is the key to this success. In the context of emerging agrarian structure of most developing Asian countries, particularly in South Asia, such a development strategy must pinpoint priority to agriculture and rural non-farm employment. Agriculture alone is not sufficient for reducing poverty and accelerating growth. Three factors, namely, (a) development of rural infrastructure, (b) generation and spread of modern technology in agriculture, and (c) exploitation of international markets through a number of macro-policy measures constitute the strategic elements of such a development strategy. Some empirical evidences are presented to buttress the arguments.

The prognosis of the future is very speculative. There are too many uncertain factors that make the task of forecasting very unpredictable. First, world trade had expanded at an annual rate of 8 percent during the post-war era till the oil crisis of 1973. It is during this expansionary world environment that South Korea, Taiwan, HongKong, Singapore, and, to a lesser extent, Malaysia and Thailand, made remarkable stride in economic growth. The world trade has slowed down since then; it has grown only at 4 percent annually during the post oil-crisis era. This trend may indicate a

pessimistic future. But then the current efforts of improving east-west relations may open up new opportunities of growth. Second, the successful growth records in agriculture during 1965-85 reflects the impact of new cereal technology that was rapidly diffused in many countries through development of irrigation. Even though the scope of further diffusion of this technology is substantial in some countries, the relatively easy stage of diffusion has been exhausted in most countries. Whether a new wave of technology can be released from agricultural research system is a question with no satisfactory answer. Third, political problems in certain countries (e.g., Sri Lanka, Bangladesh, and the Philippines) may not resolve quite soon for enabling these countries to make necessary policy changes and create congenial environment for long-term investment. Finally, international resource flow for development has slowed down in recent years. Whether the flow will be revived in the coming decade cannot be forecast in any certain terms.

In spite of these uncertain factors, the prospect of Pakistan and India among South Asian nations to accelerate growth in the coming decades appears promising. India has been reducing controls on industrial development. These changes have already produced visible results; the growth rate in Indian industry has climbed to 8 percent per annum during 1980-85 because of these changes. Although it is too early to say how long this acceleration will be sustained, the general impression is that it may continue for a long period if India can continue improvement in industrial policies and initiate some progress in the agricultures of laggard provinces.

In Southeast Asia, the prospect of keeping the current momentum of growth in Thailand and Malaysia seems to be more promising than that of Indonesia and the Philippines. In the case of Indonesia, the task of transmigration from Java to outer islands, where potential for future growth would have to be sought, is a formidable one. The Philippines' huge debt burden and political problems ridden with rural guerilla warfare may act as heavy drags on its growth prospects.

Appendix Table 1
Index of Real Agricultural Wage Rates in Asian Countries

Years	India	Bangla- desh	Sri Lanka	Pakistan	Philip- pines	Malaysia	Indonesia	Korea
1970	100		100	100	100	100	100	100
1971	103.2	100	100.2	99.8	97.5	95.0	115.2	101.0
1972	102.4	90.3	115.5	105.3	100.2	88.7	128.1	103.0
1973	93.2	90	94.5	145.9	89.9	104.2	126.0	110.8
1974	82.8	71.7	105.7	153.5	83.9	112.7	113.1	111.8
1975	85.2	95.4	121.5	129.9	92.0	111.4	109.9	108.9
1976	98.3	98.5	135.9	132.4	117.9	115.8	110.7	119.9
1977	102.3	86.3	149.5	122.5	120.2	103.9	121.5	132.7
1978	105.5	86.5	148.7	128.0	118.2	108.6	130.7	164.3
1979	110.3	83.3	200.3	135.1	102.1	110.5	141.8	188.6
1980	107.9	88	177.4	144.4	85.5	114.8	129.6	218.6
1981	108.2	79.7	156.4	184.1	84.8	121.3	131.3	225.6
1982	106.4	82.5	157.3	176.1	84.6	128.3	133.4	209.8
1983	117.6	93.5	144.0	176.1			133.1	219.8
1985	122.3	108.9	144.0	176.1			133.1	
1986	124.2		144.0				142.1	

- Source:
1. For India, India, Agricultural Wages
 2. For Bangladesh, Bangladesh, Statistical Yearbook
 3. For Pakistan, Pakistan, Statistical Yearbook
 4. For Sri Lanka, ILO, Yearbook of Labor Statistics
 5. For Malaysia, ILO, Yearbook of Labor Statistics
 6. For Philippines, Philippines, Agenda for Action for the Philippine Rural Sector
 7. For Indonesia, (a) Bulletin of Indonesian Economic Studies
(b) IFPRI, Report on Indonesian Agricultural Diversification

Appendix Table 2

Comparative Growth Rates in Agriculture, Foodgrains, and
Population in Selected Asian Countries, 1965-85

Countries	Growth Rates in Agriculture	Growth Rates in Foodgrains ¹	Growth Rates in Population
1. Bangladesh	1.8	2.3	2.7
2. India	2.8	3.3	2.3
3. China	4.6	4.0	2.0
4. Sri Lanka	3.0	4.8	1.7
5. Pakistan	3.0	4.4	3.1
6. Indonesia	4.0	5.0	2.3
7. Philippines	3.9	4.3	2.7
8. Thailand	4.5	3.4	2.6
9. Malaysia	3.8	1.8	2.5
10. Korea, Rep. of	3.8	1.1	1.8

Source: Computed from data in World Development Report, 1987

Note: Growth Rates of foodgrains are based on gross production but growth rates of agriculture are based on value added. Therefore, their comparison is not exactly valid. But purchased inputs in foodgrains is so small that the comparison will not be invalidated by this difference.

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