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DEVELOPMENT STRATEGIES AND THE RURAL POOR

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Summary

With few exceptions, the process of economic growth in the developing economies in the post-war period has been characterised by a persistence, and more recently probably an intensification, of rural poverty. The primacy accorded universally to accelerated industrialisation in third world development strategies cast the rural sector functionally in a resource-providing supportive role. However, for most developing economies, industrialisation has been - and is likely to remain - unable to generate any significant Lewisian trickle-down flows. Indeed, the relative failure of industrialisation in Africa has created structural conditions and fresh accumulating debt burdens which have generally prevented the retention and productive utilisation of the agricultural surplus within the rural sector. A reorientation of the growth process along 'agriculture first' lines is also unlikely to create trickle-down effects which have a strong enough impact on rural poverty so long as it is based on emphasising export-orientation and technological intensification within institutionally inequitable and ecologically fragile systems. Neither piece-meal reactive policy interventions nor structural adjustment packages provide viable general solutions.

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DEVELOPMENT STRATEGIES AND THE RURAL POOR

I. RURAL POVERTY: SOME EMPIRICAL OBSERVATIONS

1. Incidence

The most commonly used method of estimating the dimensions of rural poverty, the headcount poverty-line, sets up formidable data requirements relating to production and availability, consumption patterns, prices and income or expenditure distributions by sector. Few countries generate reliable statistics on all the required elements on a regular basis, and this inevitably invites drastic approximations and assumptions. Using a variety of such statistics, the World Bank published benchmark figures for the incidence of rural poverty amongst developing countries in the quinquennium 1975-80. (Table 1) These data have since been widely used, and influential policy recommendations made on the basis of analysis that relies on them.

Three rather simple checks provide some basis for scepticism over the quality of the data. Firstly, since the figures on rural poverty related to food consumption, not to the fulfilment of all basic needs, they could reasonably be expected to accord with results thrown up by independent surveys on the nutritional status of the population of the country concerned. However, estimates on the percentage of the population which was undernourished in various countries displayed little correlation with the figures for the incidence of rural poverty provided by the income poverty-line method.[1] Secondly, an examination of the data for the 52 countries (covering 54 observations) in Table 1 reveals another weakness. Statistically, far too many observations end with the digit 5 or 0.[2] This calls into question the reliability of the data as a whole. Thirdly, one might wish to compare the figures for the incidence of rural poverty thrown up in Table 1 with those generated for the same country by other sources for neighbouring years. Table 2 provides some such data where the World Bank numbers are compared with those cited in ECLA or ILO sources. While the differences for the Asian countries and Egypt appear within reasonable limits, those for the ten Central American and African countries do not.[3]

Some estimates of the overall magnitudes of absolute poverty in the developing economies are presented in Table 3. The three data sources are [Ahluwalia et. al.,1979], referred to as WB-I; [World Bank,1986], referred to as WB-II; and Agriculture Towards 2000 of the FAO [FAO,1987a], cited as AT2000. Each source uses a different methodology for estimating the magnitude of absolute poverty, and the coverage is also marginally different. (China is excluded from all estimates.) As such, the numbers are not directly comparable. WB-I uses as a universal cut-off point the income level of the 46th percentile of the Indian distributional profile, which corresponds to a level of income enough to buy 2250 calories, which in turn is adopted as the nutritional cut-off point. WB-II alternatively provides

estimates using two cut-off points which correspond to 90 per cent or 80 per cent of the country-specific nutritional norm prescribed by the FAO/WHO for a person engaging in an active working life. AT2000 also provides two estimates using two norms: the first corresponds to 1.4BMR,[4] the second to 1.2BMR. The base years for WB-II and AT2000 are 1980 (or centred on 1980); for WB-I, 1975. WB-I and AT2000 also provide estimates for the projected magnitudes for absolute poverty for the year 2000 on alternative assumptions. Comparing WB-II and AT2000 for 1980, the magnitude of the absolutely poor displays a wide spread, depending upon the source and the basis of estimation, ranging from a low of 320 million to a high of 730 million. For the end period, 2000, as well, the estimates have a wide range: WB-I estimates 221 million to be poor even if all postulated policy options[5] directed towards the rural poor are adopted; the high figure comes from AT2000, at 532 million. It is also worth noting that the base-projection exercise of WB-I yields a figure for 2000 which is 26.2 per cent lower than the base figure for 1975, whereas AT2000 has an end-year figure which is 12.0 per cent higher than the base-year estimate. All this emphasises the very relative nature of the magnitudes available, and their extreme sensitivity to the nature of the methodology and the assumptions implicit in the exercise.

The 1.2BMR cut-off point of AT2000, and the 'less-than-80 per cent of FAO/WHO norms' criterion of WB-II would seem to be irrelevant as they correspond more closely to a level of energy use associated with a state of rest than with a daily requirement of hard physical work. Clearly if the absolutely-poor population is to be lifted above the poverty-line through its involvement with some form of remunerative manual labour (rather than receipt of a pure transfer income), their energy expenditure pattern should preferably be assumed to correspond more to the higher 1.4BMR or the less-than-90 per cent of FAO/WHO norm, which is necessary for a normal activity level associated with employment. The rural poor are seldom overtly unemployed, or even grossly underemployed in terms of time. They usually work exceedingly long hours [White,1976]; the problem is generally one of low productivity [Acharya,1983]. It is also pertinent to note that many poverty-alleviation programmes, such as rural public works, involve especially hard physical labour; it has been reported that such work could require an additional 1000 calories per day per adult [Rodgers,1973]. The substantially lower magnitudes for absolute poverty under the 1.2BMR assumption might appear to make the task of poverty alleviation more tractable, but this might be no more than a comfortable illusion.

These figures pertain to caloric intake: no additional allowances have been made for non-food basic needs. In general, performance with respect to several health, mortality and education indicators has been positive, even in countries where the nutritional indicators show deterioration. However, not all non-food basic needs are covered by public expenditure and transfer systems. Thus, housing, fuel and energy, etc. still have to be paid for by individual households. Even in the public-goods category, the improvement in the indicators could hide severe distributional inequalities whereby most of the improvements occur in the higher income groups of the population;

this would happen if the benefits of the social sector expenditures were biased in favour of the rich, which is all too frequently the case.

If the nutritional criterion is replaced by a basic-needs poverty line, the incidence of rural poverty would show dramatically higher levels. Estimates provided by ILO country-level studies on both bases confirm this: for example, using the two criteria, the figures for rural poverty, respectively, were 1 per cent and 19 per cent for Argentina; 23 per cent and 54 per cent for Colombia; 18 per cent and 49 per cent for Mexico; 7 per cent and 30 per cent for Costa Rica; 28 per cent and 44 per cent for Egypt. It is also worth noting that the absolute gap between the nutritional and the basic-needs percentages for the incidence of poverty is systematically higher for the rural sector as against urban sector: the figures for the urban sector were 1 per cent and 5 per cent for Argentina, and 5 per cent and 15 per cent for Costa Rica, for instance [ILO,1988:49-51].

2. Recent Trends

What can be said about trends in the incidence of rural poverty and in the levels of related indicators? With respect to the recent past, there are only a few studies which provide some clues for a short list of countries. For the Asian region, an early study [ILO, 1977] had argued that growth in the late 1960s and early 1970s had been accompanied by an overall increase in the incidence of rural poverty in most of the countries studied. A sequel to this research [Khan & Lee, 1984] suggests a different, even if a nuanced, conclusion about trends through to the late 1970s for selected Asian countries and regions.

In Thailand, the reduction in rural poverty[6] could be ascribed in the first instance to the very high sustained growth rates of the economy over the past decade [Islam,1984:206]. This growth has generated strong linkages with the rural non-farm sector, and thereby generated positive growth effects in the countryside. Perhaps equally important has been the fact that Thailand, unlike most other countries in the Asian region, has achieved a significant proportion of its agricultural growth by extending the margin of cultivation through land reclamation and colonisation schemes[7] which have a strong employment generation effect on the one hand, and which are also oriented more towards the rural poor.

In Pakistan, there are grounds to believe that the incidence of rural poverty might have declined somewhat in the 1970s, and more noticeably in the past decade.[8] The dramatic Middle Eastern migration episode has involved the withdrawal of a substantial part of the incremental labour force. Even when the migrants have not themselves been from amongst the ranks of the rural poor, they have opened up labour market shortages and gaps which have generated pressures on wages in both rural and urban low-skill occupations. In turn, the heavy flow of remittances into the economy, in some years amounting to the value of all merchandise exports, has created a buoyancy in the domestic economy which creates further labour absorption. On the one

hand, it is possible to argue that this is a special one-off effect which is petering out as the Middle Eastern economies restructure and reduce their demand for overseas, especially unskilled, labour. On the other hand, it is arguable that this demand will stabilise at a moderately high level; in addition, the cessation of hostilities in the Iran-Iraq war could signal the triggering off[9] of another decade of rising migration associated with reconstruction.

In India, the issue of the trends observed in the incidence of rural poverty is a controversial one. Using benchmark data for a few years, it could be argued that the percentage has declined. By way of qualification, it needs also to be noted that, coincidentally, these years also happen to be ones of strongly above-trend agricultural performance. Much also hangs on the precise periods and methodologies used for estimating the trends. For the recent past, however, it is arguable that there has not been a trend increase in the incidence of rural poverty, even if there may not have been any decline. Two further observations are necessary. Firstly, the past decade has seen a substantial expansion in the volume of Government expenditure injected into the rural and semi-urban, small town economy through various specialised programmes ostensibly oriented towards the rural poor. While the efficiency as well as the targeting accuracy of such programmes can justifiably be seriously questioned, the scale of the all-India level activities has been high enough to make it likely that they will have had some impact on the incidence of rural poor during the years of their operation. Such an effect could be constued as being restricted to the benefits tranferred to the direct beneficiaries within the rural poor; but it could also be hypothesised to be somewhat augmented, at least in principle, through the local linkages and employment demands generated through even that part of the expenditures which leaks out to local non-targeted groups. But once again, to the extent that the behaviour of rural poverty in India has not worsened, it could be attributed to this special effect, more than to any egalitarian tendencies inherent in the new growth strategy being currently espoused; indeed the latter could well be expected to pull in the reverse direction. Secondly, within the country, the regional experience has been differentiated. Kerala, where the international labour migration effect has been heavily localised in the past decade, and where the presence of rural trade unions has been widely presumed to have had a positive effect on wage rates - even if a weaker, perhaps even indeterminate, effect on earnings - has displayed a noticeable improvement.[10] So also has Punjab with its sustained high agricultural growth rates. On the other hand, the high levels of rural poverty in Bihar have not really changed [Mundle, 1984]; it is likely that it is not exceptional in this regard.

There is intense controversy over the Sri Lankan experience, especially when it involves comparisons between the periods before and after the break in development strategy in 1977.[11] In support of the post-1977 liberalisation, it has been argued that "growth has indeed trickled down; that is, food subsidies have been replaced by labor income" [Bhalla, S., 1988b]; the rate of economic growth doubled over the previous period; unemployment

declined; food consumption did not decline. Without getting involved in the detailed methodological aspects of the debate, a few general observations might still be made. Firstly, with respect to nutrition, the proponents of the 'direct' or 'economic growth' approach register but a minimal claim, viz., that food consumption did not decline. In turn this is causally related to employment gains and to the large expansion in rice output which reduced the relative price of rice. Both these factors involve major interventions which cannot easily be incorporated as being elements of the post-1977 strategy. On the one hand, the Middle Eastern labour migration boom peaked in these years, and withdrew from the Sri Lankan labour market a significant proportion of the incremental labour force; this labour outflow was matched by a heavy inflow of remittances which eased the balance of payments situation [Rodrigo, C. & Jayatissa,1988]. On the other hand, the expansion in rice production owes not a little to the massive Mahaweli Schemes which involved opening up new settlements, and which predated the new strategy, and were thus as much a part of the previous one. The so-called trickle down came not so much from the domestic economy as from labour having to find employment elsewhere. Secondly, when citing the high growth rate, it is disingenuous not to comment on its financing. While the shift in strategy is indeed associated with a sharp rise in the rate of gross investment in the economy, the increase is financed not so much through a matching rise in savings and exports but by a dramatic worsening of the resource balance (or the gap between the domestic rates of savings and investment): for 1960, 1965 and 1976, it stood at -5, 1, and -2 per cent of GDP respectively; for 1980 and 1985, the figures are -22 and -12 per cent. Alongside this, the external public debt as a percentage of GNP rose from 20.4 per cent in 1975 to 48.7 per cent by 1985, placing Sri Lanka at the top of the Asian league, having overtaken Pakistan, Indonesia and South Korea in the process.[12] There is also an indication that the incremental capital-output ratio rose somewhat between the two periods. An increase in the overall economic growth rate financed largely out of an increased external indebtedness, and by special factors (viz., remittances), and an improvement in the employment situation engineered largely by the withdrawal of domestic labour through international labour migration can hardly be cited as indicators of success, especially when the bottom line is non-deterioration with respect to average food consumption; even this minimum conclusion could be destabilised if the unreliable data on income distribution were read - as they justifiably could be - to imply worsening, rather than constant, inequalities.

For Malaysia, with its powerful primary commodity external linkages, the situation with respect to rural poverty varies considerably with the vicissitudes in international trade; for Bangladesh, with its heavy reliance on the agricultural sector, the position depends upon the nature of the harvest, the fluctuations in which are largely dependent on the weather; for Nepal, with its critical land degradation problems, improvements require a scale of effort that has so far not been forthcoming.

On the whole, then, the Asian experience in the recent past with respect to rural poverty has been varied; where there have been noticeable

improvements, they have been triggered off by special factors of a one-off, non-replicable nature. On the basis of PQL indicators, as well the levels of average per capita caloric intake, all 11 Asian countries reported on show improvements over the 1965-85 period, with the sole exception of Bangladesh, where the latter fell from a level of 1964 calories to 1899 calories. Since it might be arguable that most of these economies also experienced an increase in the level of inequality over the period, the position with regard to the levels of rural poverty must remain indeterminate, except where substantiated by other evidence.

Estimates provided by the World Bank [World Bank,1986:17-18] for levels and changes in the prevalence of energy-deficient diets in 87 developing countries provide reason to make a strong distinction between the East and the South Asian countries (Tables 4 and 5). For the former the incidence of moderate undernourishment fell between 1970 and 1980 by as many as 27 percentage points, and that of severe undernourishment by 14 percentage points. For the group of 7 South Asian economies, the respective figures showed increases of 3 and 2 percentage points (Table 5). This conclusion, it is important to note, is based on an assumption that such growth which took place in these economies was distributionally neutral. Such a premise is almost definitely unrealistic; therefore, the deterioration in the situation could actually have been worse.

By comparison, very many, if not all, African and Latin American economies have almost definitely experienced a deterioration with respect to the incidence of poverty over the recent past. The justification for such a deduction is simply that in the face of sharply declining levels of economic growth a rejection of this conclusion would require assuming such a dramatic reduction in the degree of inequality that despite the economic recession, the absolute position of the rural poor would actually improve while those of the non-poor worsened all round them. Such an assumption would be implausible, to say the least.

For Africa, rural poverty "has almost certainly been increasing over the past 10 to 15 years" [ILO,1988:50]. This is evidenced by widespread declines in real agricultural wages in 7 of 11 countries reported on [ibid.:47], and in incomes from self-employment over the 1970-83 period in countries for which such data were available, viz., Kenya, Nigeria, Sierra Leone and Tanzania. At a micro-level, indicators for daily calorie intakes suggest declines for 17 of 32 SSA countries over the 1965-85 period, with the position becoming much worse during the last decade of the period. Few SSA non-mineral producing countries have registered positive rates of growth of real GDP; the performance of the agricultural sector has been worse still; in terms of the rate of growth of per capita private consumer expenditure, even fewer cases of positive growth have been recorded over the past decade. The impact has been transmitted partly through the impact of the recession on the agricultural export sector; but in part, the impact has been generated also by the structural adjustment packages imposed by the World Bank and the IMF on the developing economies [Singh, A.,1985]. This

impact has constituted nothing short of an upheaval in the economies affected, and has transformed some of their economic structures and intersectoral relationships dramatically. The effect of this on the incidence of rural poverty, paradoxically, even though negative, might well be less severe than in the urban sectors of the economy. Recent analysis for a variety of SSA economies (including Nigeria, Uganda, Sierra Leone, Tanzania, Somalia) points to a collapse of urban wage employment structures alongside dramatic erosion of the real wage [Jamal & Weeks,1988]. Perforce, urban populations have been pushed to forge, or reestablish their links with rural food producing units, or to take to food production in the urban sector; this shift into self-provisioning food production has also characterised the declining export crop producing sub-sector in agriculture; food prices have risen in relative terms quite sharply. The result has often meant that in terms of the burden of 'adjustment', the worst hit have been the urban working classes, rather than the rural food producing sector which in normal times would occupy the least advantaged position. However, this effect pertains to the relative positions of the different groups in the population, and has probably been accompanied by an increase in the overall incidence of rural poverty in most of these economies. It needs to be added though that, to a considerable extent, the character of the working class, as well as rural occupational groups, may itself be undergoing a change; the crisis has imposed on all poor households the imperative of operating simultaneously in several sectors and occupations; it is therefore not unlikely that pure sectoral economic variables do not accurately reflect the levels of well-being of the populations conventionally associated with these sectors.

Data in Table 5 underpin the conclusion about the worsening of rural poverty in the recent past. For the 1970-80 decade, the incidence of severe and moderate undernourishment increased in 37 Sub-Saharan African countries by 1 and 4 percentage points respectively; the number of persons in these two categories rose by 30 per cent and 49 per cent over the decade. Once again, this estimate is based on the over-optimistic assumption of the distributional neutrality of growth. Further, it is very likely that the situation worsened considerably in the period after 1980; extensive evidence of deterioration in the physical quality of life of the poor in the era of externally-imposed adjustment is now emerging for both the African and the Latin American continents [UNICEF, 1989].

For Latin America, a comparison of figures for the daily per capita average caloric intakes for 1965 and 1985 reveals that only three countries (of those reported on in the World Development Report,1987), viz., Haiti, Peru and Uruguay experienced declines, and the latter two from reasonably high initial levels. Evidence of PQL indicators over the longer periods also indicates improvements in the level of well-being. Yet, the long period hides the sharp change that has occurred in the past decade, when growth rates of GDP, agriculture, exports, private consumption and investment have all tumbled steeply, often to negative values. The dimensions of the deterioration have again been large enough to suggest significant deterioration in the incidence of poverty as well as in the conditions of

the poor. Within this overall picture, the precise distribution of the burden of such deterioration between the different rural and urban classes could be differentiated, depending upon the nature of the cuts, the nature of the agrarian structure, the differences in the cropping pattern and export-crop involvement of the rural population, and the extent and nature of inter-sectoral migration linkages of rural and urban poor households. Evidence cited by the ILO [ILO,1988:49-50] indicates that the incidence of both food- and basic-needs rural poverty rose in Costa Rica and Honduras, the only two economies for which data were available for both 1970 and 1980.

For the same decade, The World Bank [World Bank,1986:18] estimates that the percentage of the population which was moderately undernourished fell by 7 points in 24 Latin American and Caribbean countries, while the fall was 4 points for the severely malnourished (Table 5). But the report admits that "the estimates rest on the rather optimistic assumption that income distribution did not change during the decade; this probably overstates the improvement..."; indeed, it is quite possible that even the direction of change could be reversed on the basis of more realistic assumptions about distributional changes. "In Brazil, for instance, per capita income more than doubled while per capita calorie consumption changed little during one decade" [ibid.:18,box 2-1]. However, this assumption of distributional neutrality appears not to be generally acceptable even to the Managing Director of the IMF who has stated that "too often in recent years it is the poorest segments of the population that have carried the heaviest burden of economic adjustment" [cited in UNICEF,1989:17-18]; the Director-General of UNICEF goes further: "it is widely known that the poor have usually gained least in good times and suffered most in bad times" [ibid.:30].

An alternative way of monitoring changes in rural poverty is to focus not so much on the expenditures on commodities but on indicators of the levels of well-being. While the expenditures could be treated as an input, or as a means to the achievement of a superior welfare status, the latter could be thought of as the outputs, or outcomes of these expenditures. These indicators, i.e., those relating to health, education, mortality, longevity, etc., could be less ambiguous in their interpretation, and at the same time more easily measured and so also available. However, certain qualifications need to be borne in mind. For one, such indicators on the physical quality of life (PQLI) need to include variables covering the caloric intake of the population. It is not enough to say that the life expectancy of a given population has risen; it is also of interest to know whether this longer life was to be a less hungry one as well. For another, such PQLI statistics almost always provide macro-level averages which cannot always easily be related to the economic levels of living of the individual units or sub-groups concerned. Further, there could be several PQLI indicators, the behaviour of which would be directly related not (just) to the income and nutritional status of the individual, household or group, concerned, but which were directly influenced by public expenditure or investment programmes in these areas. Thus, the crude death rate, the infant mortality rate, the female life expectancy at birth, etc., would all respond to public investment in the health sector, especially if it managed

to provide such health service entitlements to the poorer sections of the population. Improvements in these indicators could well occur in situations where the income and nutritional status of the population was stagnant, or even deteriorating. Therefore, such data need to be read alongside, rather than as proxies for the statistics on the incidence of rural poverty defined with respect to a minimum income or caloric intake line. Another supplementary set of monitors could be anthropometric data on the population, since the height-weight-age ratios would reflect the outcomes of the nutritional status of the subject directly. But here again, there are many thorny issues concerning the identification of appropriate anthropometric norms for specific groups of the population.

National level data on selected quality of life indicators show general progress over the 1960s and 1970s across all developing countries with rare exceptions. The extent of improvement appears to have been somewhat more pronounced for the higher income East Asian block of countries for mortality and longevity related indicators. However, what is especially interesting is that this general feature is not replicated with respect to the trends in the nutritional variable, viz., daily calorie intake per capita. Here, data (from the World Development Reports of the World Bank) covering a group of 44 African and Asian countries show that of the 32 African cases, the index fell between 1965 and 1985 for as many as 19 of them, while only one such case is found in the remaining 12 Asian observations. Yet, with but a couple of exceptions, all these cases of caloric-intake decline show improvements with respect to the crude death rate, the infant mortality rate, the female life expectancy at birth, as well as with the educational enrollment variables. This should serve as a caution against placing exclusive reliance on either set of variables for making deductions about trends in the level of well being of a population. What makes this divergence possible is the dependence of the behaviour of the non-diet indicators on improvements in the general standards of state-financed public programmes of health, sanitation, water provision, etc. which benefit the population generally, including the poor (even if not at the same rate) rather than on incomes of individuals or households. Conversely, situations could be encountered where, despite improvements in the nutritional status of the population, the health related indicators remain stagnant or sluggish on account of a lack of investment by the government in these sectors, or on account of such services not being readily accessible to the majority of the population. The data suggest that, for large parts of Africa, progress in the general standards of public health during the 1960s and 1970s led to significant improvements with respect to the crude death rate, the infant mortality rate and the female life expectancy at birth, but that simultaneously, these parts have also experienced a deterioration in the nutritional status of the population.

Over the past decade, however, much of this improvement has been halted, and probably reversed, particularly in large parts of Africa and Latin America. In 1988, the income of 'the average Latin American' was held to be 9 per cent lower than in 1980; in some countries, the average standard of living had slipped back to what it was 20 years ago [UNICEF,1989:16]. In

the 37 poorest countries, expenditure per capita on education fell by nearly 50 per cent, and that on health care by nearly 25 per cent in the past decade. A UNESCO report reveals that in 21 of 23 LDCs surveyed, government expenditure per primary school pupil had been declining [ibid.:17]. That the experience of the poor might be much worse than the average is suggested by some survey data on infant mortality rates (IMRs) collected for different regions of Brazil for the 1977-84 period. Under the impact of recession and cutbacks in expenditure on social services, IMRs for the North and North-eastern Regions, where the great majority of Brazil's poorest reside, began to drift upwards after 1982, in contrast to the downward trend till then, and to the continuing downward trend in other regions of the country; between 1983 and 1984, IMRs rose by 25 per cent in the North-eastern Region [ibid.:30-31]. There are two general implications of this finding. Firstly, average national trends, even when rising, could well hide trends of deterioration experienced by the poorer sections of the population; secondly, if cuts in household income, and or government social-service expenditures are deep and sustained enough, the effects will surely be picked up even by the sluggishly-responsive indicators on the physical quality of life. The Brazilian data are strongly suggestive of the likelihood that similar deterioration might well underlie the stable average national trends in such indicators in a variety of African and Latin American countries.

3. Projections and Prognoses

Two alternative projections of poverty to the year 2000 were reported in Table 3, viz., those of the World Bank (as in [Ahluwalia et. al.,1979]) and the FAO (as in AT2000, or [FAO,1987a]). In the former, the incidence of absolute poverty declines from 38 per cent in 1975 to 16.3 per cent by 2000 on the basis of a 'base projection', and to as low as 8.1 per cent if various special policy options are assumed to have been adopted in the countries concerned. According to the FAO projection, the incidence of undernourishment (those under 1.4BMR, which is closer to the World Bank cut-off point) would drop from 21.8 per cent in 1980 to 15.6 per cent in 2000. If the actual shortfalls from nutritional adequacy were to be taken into account, then the overall deficit could be shown to amount to the equivalent of an insignificant tonnage of the world's grain output. These projections would provide encouragement, if only they could be taken seriously.

There are two basic problems with these types of exercises. Firstly, in their eagerness to redress rural poverty, they take the shortcut of making it disappear by assumption. The growth rates of GNP adopted for the projection period are quite unrealistic. This is true if one compares the assumed growth rates with the record of the past couple of decades, and even more so if one takes into account, as indeed one must, the present and likely future international economic environment within which such growth is to be achieved by the poor economies. Yet, the World Bank projection assumes an acceleration in the GNP growth rate the extent of which is the maximum for the lowest income group where the bulk of the poor are

concentrated. A few comparisons for countries which have an acute problem of poverty will illustrate the point.

Consider Bangladesh: between 1960 and 1975, GNP grew at 2.4 per cent per year, but the growth rate (even without the application of the special policy options) is assumed to be 4.6 per cent for the 1975-2000 period. The actuals for 1970-80 and 1980-85 are 3.9 per cent and 3.6 per cent. Ethiopia, with 4.3 per cent for 1965-80 is assumed to run at what would appear to be a plausible 4.1 per cent per year till 2000. The contrast with the actuals is sharp: GDP growth rates declined from 4.4 per cent for 1960-70 to 2.0 per cent for 1970-80 and to 0.3 per cent for the period 1980-85. Of course, some other countries have kept up (at least thus far) with their projections, but these are the exceptions rather than the rule. For Latin American countries for instance, the projected growth rate is in excess of 6 per cent per annum; the actuals for 1980-85 show that not one of the group (for which data are reported for GDP growth rates in the World Development Report,1987) achieved a growth rate of even one-half of that, while 9 of the 20 showed negative figures; another 5 had figures between zero and 1 per cent; only one country, Panama, achieved a positive per capita GDP growth rate. The profile for the African countries is not qualitatively dissimilar.

The second problem concerns the assumptions made about distributional changes over the projection period. Here, the [World Bank,1979], though not the [World Bank,1986], projections derive their distributional parameters from estimates of the Kuznets Curve which would predict an increase in the degree of inequality over the early growth phase. Though the methodology used by the study for working this out is seriously flawed,[13] it nevertheless provides a distributional correction which is qualitatively more acceptable than the facile assumption made by the FAO exercise which postulates economic growth to be distributionally neutral.

For the foreseeable future, the prospects for economic growth in the poorer developing countries seem to be bleak indeed. Monitoring the relevant macro-economic indicators corroborates this impression. The rates of gross investment have generally tumbled, as debt problems have mounted; expenditures on agriculture have fallen drastically, and imports, on which domestic industry depends crucially have also suffered as exports have been unable to keep up the financing process. This suggests that the effects of such a slow down are likely to be felt beyond the short period. It is virtually impossible to sustain the assumption of the distributional neutrality of growth in the face of current experience, and the sharp cuts in social services expenditures (including food subsidies, etc.) are likely, with a lag, to erode the complacency and credibility of the position which continues to point at the improvements in the physical-quality-of-life indicators as evidence of the existence and power of the trickle-down effect. Leaving aside certain Asian economies, a very major upturn in the world economy, alongside a strong and sustained restructuring of international and national developmental relationships will have to be realised if the incidence of poverty is to follow anything like its comfortable

projected trajectory; in all probability, 2000 will not be the year by which the poor will inherit the earth.

Within this scenario, ongoing development processes indicate a certain pattern of the relative relocation of poverty within the developing economies. Firstly, there is likely to be a tendency towards the spatial polarisation of poverty which concentrates an increasing proportion of the poor within specific countries. Thus, from its share of the poor (within South Asian economies) of 12.0 per cent in 1975, Bangladesh is projected to account for 20 per cent by 2000. As mentioned earlier, if more realistic growth and distributional assumptions are made, this share could well be much higher. Its share of the poor of the developing countries would rise from 8.1 per cent in 1975 to 11.8 per cent in 2000, while for Ethiopia and Nigeria, the combined share would rise from 7.2 per cent to 11.6 per cent over the period.

Secondly, there is likely to be a tendency towards the Africanisation of poverty. This is forecast within the framework of the projection exercises. For the Sub-Saharan countries included in the World Bank projection, their share in the absolute-poor would rise from 14.3 per cent in 1975 to 24.8 per cent in 2000; within the FAO projection, this share rises from 23.2 per cent in 1979/81 to 36.5 per cent by 2000. In reality, the pace of Africanisation is likely to be much higher. The growth record for the Asian economies, including those with heavy concentrations of poverty, has on the whole been far superior to that of the Sub-Saharan African ones in the recent past. This is related to various structural factors which are bound to persist in the foreseeable future. The African economies are much more debt ridden, have lower savings and investment capabilities, have a weaker human resource and technological developmental base, are far more vulnerable to external trade shocks, and display a much greater ecological fragility in the agricultural sector. In terms of the process of nation-building as well, they have tended to encounter more debilitation than the Asian economies (which are no strangers to strife themselves). As such, the growth process over the coming years is likely to be weaker, more sporadic, and distributionally perhaps no more egalitarian than elsewhere. Indeed, it could be argued that in several large African regions, the rural population is so concentrated around the poverty line that even small deteriorations could widen the contours of absolute poverty quite considerably and push a significantly higher percentage of the population into destitution.

Thirdly, it is likely that the period to 2000 might also witness a tendency towards an increasing urbanisation of poverty. This deduction is based on the finding that there is a negative correlation between the incidence of rural poverty and the ratio of the urban to the rural incidence of poverty. Data on rural and urban poverty-incidence provided by the World Bank for a sample of 37 developing economies throws up a correlation coefficient of -0.50; a smaller ECLA sample for 9 Latin American economies generates a coefficient of -0.64. The process underlying this could be held to imply that migration serves as an exporter of rural poverty into the urban sector. Within the present, deteriorating African context, it has

been argued that the economic decline has affected the urban lower economic classes rather more than the rural ones which have the option of reverting to subsistence food productions. The longstanding rural-urban income disparity gap has been whittled down to vanishing point [Jamal & Weeks, 1988]. Such an attritional process would also generate the effect of increasing the relative weight of urban poverty in the total, though it is worth noting here that the categories 'rural' and 'urban' might themselves become somewhat arbitrary in a situation where most households develop strategies which dovetail occupations and activities which straddle the conventional sectoral divide.[14] However, while this urbanisation of poverty will probably occur within every region, the increasing relative weight of the more rural regions in the overall incidence of poverty will imply that at a global level, the vast majority of the poor will still be found in rural areas. Thus, available evidence points to the overall persistence of the problem of rural poverty, and within this, perhaps to its accentuation in specific regions in the foreseeable future.

In general, taking a broad sweep, it is worth noting the career of the concept of poverty. With the rise of the notion of 'basic needs' a certain populist sentiment began to contend with, if not displace, earlier more radical uses of the analysis of poverty which required the development process to incorporate greater equality, participation and economic democracy; now, so long as 'basic needs' were fulfilled, inequalities were to be condoned, and if they were thought to be functionally contributing to the achievement of basic needs, they were even to be encouraged - as for instance in contemporary China. Subsequently, the notion of basic needs (which also included non-food subsistence requirments and thereby considerably extended the numerical countours of poverty) was cut down to a more manageable size, with poverty defined in terms of food or nutritional requirements as the key variable of concern. Yet another revision has adjusted the nutritional norms for 'overstating' requirements; frequently other 'reductions' have been affected through assuming that populations did not necessarily require a balanced diet, were not constrained in their consumption by what was available, or by cultural norms, and could actually meet their minimum calorie requirements through the consumption of cheap calories only. Some analysts have also begun to utilise the nutritional cut-off point of 1.2BMR, which corresponds more to the situation where the human body is in a state of rest than at full-time work; it is not clear how the poor, so defined, are expected to work their way out of poverty. Following this, now is the notion of focussing mainly on 'the poorest'. While with each such revision the incidence of poverty is whittled increasingly to manageable proportions, all evidence based on unchanging criteria tend to show that the position with respect to nutritional adequacy has not experienced a parallel improvement.

4. Some Structural Correlates

At an a priori level, the incidence of poverty within a population could be directly related firstly to the level of per capita income, and

secondly to the degree of equality in the distribution of income. Where the average per capita income is above the poverty line, a higher level of inequality would imply a greater incidence of poverty. In contrast, where the average per capita income of a population was below the poverty line, a higher degree of inequality could mean a lower incidence of poverty in terms of the head-count measure, though possibly still a higher one in terms of the Sen index.[15]

Using highly aggregated cross-sectional country-level data, the incidence of rural poverty (RP) was related to the level of agricultural GDP per head of agricultural population (AGDP/APOP); a strong positive correlation was observed. For the distributional variable, the gini coefficient for the land ownership profile in the rural sector (GINILD) was introduced; the estimated coefficients both had the correct sign, and were significant at a 1 per cent level; the overall level of explanation and the goodness of fit were quite satisfactory for this rough type of exercise (see Table 6).

A third, structural variable was introduced, measuring the degree of gross export orientedness of the agricultural GDP (AGEX/AGDP). The rationale for its inclusion was that gross agricultural exports could be taken as a part of AGDP that was withdrawn from local circulation and was not available for consumption. To the extent that this withdrawal was actually fully compensated by matching flows into agriculture, the variable would become statistically insignificant in the regression equation. However, if such outflows were not compensated, a direct relationship between the extent of agricultural export orientedness and the incidence of rural poverty could arguably be expected. The reason for not employing net agricultural exports out of total GDP was that agricultural imports into developing economies only very rarely get through the urban sector into rural areas. The variable was found to be highly significant, though the level of significance varied with the treatment of some wild outliers, the exclusion of which could be independently justified. The goodness of fit as well as the level of explanation both improve with the inclusion of AGEX/AGDP into the previous regression equation.

There are several qualifications which must be borne in mind in considering these results. Firstly, the problems of inter-country comparisons of GDP figures are well known, and the ones used here are based on unadjusted national accounts and official exchange rates. Secondly, the rural poverty figures themselves, as mentioned earlier, must be taken only as indicative of broad orders of magnitude rather than as accurate measurements. Thirdly, the measurement of agricultural export values is strongly influenced by the methodology used for pricing these goods, and following the figures provided in national accounts of countries does not provide a clean basis for comparisons. Fourthly, the land gini coefficient is not always derived from distributions for identical variables. Usually it refers to the holdings in the peasant sector; but this would tend to understate the degree of land inequality in economies where the estate sector controls a significant share of (high-productivity) land. So also, it is possible that the gini coefficient is derived in some countries from

distributions which leave out of the reckoning the rural landless class. Fifthly, the sample of countries used is one for which data are available. While countries from all regions are well represented, there is no scheme of weighting that is, or can be, used. All these difficulties notwithstanding, the results are strong enough to provide support for certain interpretations.

Firstly, while higher levels of AGDP/APOP are correlated negatively with the incidence of rural poverty, it cannot by any means be read to mean that an increase in AGDP/APOP in any particular country would have the effect of lowering poverty. The reason is simple: higher levels of AGDP/OPOP are positively correlated with GINILD and AGEX/AGDP, both of which are in turn positively associated with the incidence of rural poverty. Secondly, the two structural variables, GINILD and AGEX/AGDP, support the notion that the level of rural poverty is related strongly to the nature of the agrarian structure and the pattern of resource use within it.

Table 7 provides values of some structural variables, including those used in the regression equations, averaged separately for four groups of countries. They display low intra-group variation, but high inter-group variation. This permits a very approximate check on the relative importance of the different variables in explaining the deviations in the respective group's RP level from the average. It is clear that while the group-average RP level is quite similar for South Asia, Latin America as well as Sub-Saharan Africa, this paradoxical similarity is the outcome - apart from the data problems cited earlier - of very different contributions of the three variables identified. The Latin American group's advantage with respect to much higher AGDP/APOP levels are negated by the high GINILD and AGEX/AGDP levels; for the SSA group, the very much lower GINILD levels - reflecting the relatively easy access to land in many African economies - are similarly countered by the low levels of AGDP/APOP and the high levels of AGEX/AGDP. The South Asian group provides an intermediate position.

This could lead to the surmise that in South Asian economies - which constitute one high-density poverty region - rural poverty is strongly influenced by intra-agrarian structural land inequalities, as also in Latin America; in contrast, African rural poverty is strongly related to the export orientedness of agriculture, apart from its low overall level of productivity. It would also follow then that the rural poor in South Asian economies would be less vulnerable to the impact of fluctuations in the agricultural export sector than the African and the Latin American groups. Since in the African group agricultural exports formed a much higher proportion of the total GDP than in Latin America, such fluctuations would also affect the rural sector through their greater macro-economic impact on the African economies as a whole. This identifies a few key variables relevant for an appropriate typology across regions.

II. INDUSTRIALISATION-LED GROWTH STRATEGIES AND THE RURAL POOR

Can the persistence of poverty in the developing countries be regarded as an indictment of the development strategies they have followed in the post-war period? Or, is it possible to argue that, barring a few hiccups, things are proceeding according to plan, except that more time, i.e., growth, is necessary before the benefits trickle down to the poor? At one end, at an instrumental level, virtually all developing countries share the feature of having adopted essentially industrialisation-led development strategies in the 1950s and 1960s. At the other end, with respect to outcomes, again most, if not all, of them have posted disappointing results in terms of the reduction in the level and intensity of the endemic poverty that characterised these countries at the outset. Between these two ends, which could be regarded as common ground in the ongoing debates on these issues, lies a vast stretch of no-man's land where conflicting interests, ideologies, analyses, theories and numbers quibble and contend. Frequently, there is little agreement over what has actually happened; when there is, it does not always carry over into how and why it has happened; even when this is also agreed, it does not imply consensus over what needs to be done. Part of the disagreements might well be unbridgeable, in that they arise from fundamentally different ideological orientations; but much prior grounds could perhaps be gained if the general proposition was to be analysed with an eye to the profound regional variations in initial structural conditions, the varying specific shapes given to the general strategy of industrialisation in different economies, and the critical role of the historical timing of development efforts in the different parts of the third world.

1. The Primacy of Industrialisation

The imperative for the newly emerging third world countries to industrialise was, and indeed still is, underpinned by six sets of factors. Firstly, the era of colonialism had been one of mass deprivation, and the fulfilment of the basic needs of the population required a certain level of industrial capability. The provision of health, educational, housing and sanitation facilities was virtually impossible without the development of the industrial sector. Secondly, modern industrialisation was deemed part of a pattern of early development necessitated by another unwanted colonial legacy, viz., a war economy; nation-building and national defence requirements demanded a minimum level of industrialisation. Thirdly, if modern economic growth was to be secured and a high rate of growth of per capita income to be achieved in face of high growth rates of population, a process of structural change was necessary which rapidly increased the relative share of the high(er)-productivity industrial sector. Fourthly, even where agricultural development was given high priority - it was recognised that this would call for the injection of modern inputs and infrastructural development, which in turn required a prior development of basic industrial capacities. Fifthly, industrialisation was imperative if agriculturally-oriented, primary product exporting LDCs were to escape the negative dynamic implications of the international trade and growth process, i.e., from declining markets and deteriorating terms of trade arising from structural

factors. Sixthly, partially at an ideological level, the process of industrialisation was viewed, with much justification, as forming the backbone of projected economic independence in the new era, whereby the traditional economic relationships between the imperial country and the colony would be broken. The case for import-substituting industrialisation across a broad front was virtually non-negotiable.

The standard-bearers of this common industrialisation-led strategy came in four types of uniform. Some countries, especially in Latin America, which had had an experience of prior industrialisation, had relatively developed industrial sectors, even iftheir scope was narrow. In terms of ownership, entrepreneurship, trade, technological and financial linkages, the degree of external linkage, even dependence, was substantial. Since decolonisation had occurred many decades earlier, there was no move towards the dispossession or replacement of external interests.

A second type of motive force was provided through the emerging interests of nascent embryo industrialists who had begun to develop under imperial aegis in the inter-war period, but which now found in the post-colonial third world state, a powerful instrument for the expression and realisation of their parallel economic interest in developing indigenous industry. India provides the best example of this type.

The third agent was the state itself, which acted as a proxy social capitalist in systems where the indigenous capitalist class had not emerged in sufficiently developed form under colonial rule, and which therefore had to be nurtured in the earlier stages of the industrialisation process. Frequently, such a path involved the development of the investment-heavy and risky sectors within the public sector while the private sector was encouraged to enter the lighter industries. Subsequently, the meiji Japanese form of privatisation, led to the withdrawal of the state in favour of the maturing local capitalist classes; a good example of this is provided by Pakistan. But where such state enterprises were large-scale, and where local entrepreneurship and industrial capability could not respond rapidly enough, the presence of the state in the industrial sphere remained high. Of course, various combinations of these three proponents and developers of industry prevailed, depending upon local circumstances. Typically also, in the latter two cases, decolonisation also meant a thrust towards the dispossession of external industrial interests, and an attempt at restructuring the nature of the external industrial and economic linkages; yet even in a country with such a large industrial sector as India in 1947, these nationalistic urges were strongly qualified by a pragmatic judgement about the technological and resource limitations of indigenous industry, and the consequent need to maintain a functional external linkage, even while protecting Indian markets in favour of local industrialists. It is also worth noting that in the process of industrialisation itself, even in economies where local powerful capitalist classes were virtually absent at the start, the development process, launched by the state in the role of a proxy social capitalist, tended to create a real local constituency which filled this gap. A new class of industrial capitalists was virtually

created through state intervention in Pakistan in a manner reminiscent of the state sponsored rise of the zaibatsu in meiji Japan. In such situations, questions arise concerning the relative autonomy of the state and the passage of control of the industrial process from the bureaucracy to the new capitalist class, answers to which are of some import in relation to the success of the overall development process in subsequent stages. In other countries, where local capitalist classes could not emerge under state tutelage, the control of the growing industrial sector stayed within the public domain, with control vested in a bureaucracy increasingly engaged in economic management.

The fourth type concerns countries where decolonisation coincided with, or was soon followed by a revolutionary systemic break in favour of a socialist path of development. Comprador as well as local capitalists were soon dispossessed, and the industrial processes launched were soon placed under overwhelming state control.

The specificity of the origins and the agents of post-war industrialisation in the third world have had considerable influence on subsequent development, in terms of sectoral patterns of development, rates of accumulation, the relative roles of the public and the private sectors, the nature and degree of external dependence, the extent of export-orientedness or import-substitution, as well as on state policies towards the industrial sector. Thus, while it is right to emphasise that the development strategies followed by the developing countries had the common central plank of industrialisation, it is necessary to recognise the strong variations on this theme that characterised different sets of countries with specific structural and prior historical experience. Not to do so would generate a damaging blind spot in the subsequent argumentation on the interaction between the industrialisation process and the fortunes of the rural sector, and especially the rural poor.

2. Industrial Trickle-Down: the Lewisian Rationale

Common also across most developing countries was the perception, pegged sometimes to some shreds of theory, or simply floating on the buoyancy of hope, that such industrialisation processes, assisted by what Keynes called the power of compound interest, would soon banish the scourge of underdevelopment and rural poverty. Such was the faith in these ideas that planners took to trading present for future consumption at rates which required the poor to hold their breath, hunger and hope for that much longer; such attempted acceleration raised the distributional stakes of the development game for the underprivileged. But how was the industrialisation process to reach the rural poor?

The rationale may be elicited from the influential Lewis model [Lewis, 1954; 1958] which provides an analytical characterisation of an industrialisation-led growth process under structural conditions featuring rural surplus labour; it also sketches the logic of the process whereby the

benefits of industrialisation are expected to trickle down to the rural poor. Industrial growth is expected to draw upon (initially) infinitely elastic supplies of labour from a low productivity rural sector at a constant wage determined by the average consumption level of the rural population. On the family farm, which is implicitly taken to be the major production form in the countryside, surplus labourers are absorbed through work (and underemployment) sharing, and consumption follows egalitarian rules within the family. It is therefore assumed that if such a worker was to offer his services to the industrial sector, the minimum wage there would have to equal this average consumption level on the farm, plus a nominal extra to cover the additional costs of moving and urban living.

(This turns out to be a curious assumption. It is not clear why, in general, the individual farm worker should not agree to work in the industrial sector at a wage which is higher than the marginal returns to those units of labour on the family farm. Since on the latter labour is applied till its marginal return becomes zero, even a much lower (than average farm per capita consumption) industrial wage would become attractive, so long as it was assumed that decisions about labour allocation and the intra-family distribution of income were made collectively on the same basis before and after the out-migration of one of the family members. In reality, situations are encountered where the farm family sends out remittances to the member who has migrated to the industrial sector to cover the shortfall from the family subsistence norm, which is now fulfilled presumably through the rural members of the family working more to make up for the loss of the migrant's labour. Following such an assumption would of course accelerate the Lewisian industrialisation process, and as such, this particular assumption does not alter the basic argument.)

As the profits generated in the high(er) productivity industrial sector are reinvested by the capitalist class, the demand for rural surplus labour is sustained to the point where it is no longer infinitely elastic at the constant wage, since further withdrawals cannot any more be compensated for by additional inputs of labour from the resident rural family members of the migrant. Now labour withdrawal reduces output, and the resident rural members have to be compensated for this drop in average consumption through the payment of a higher wage to the migrant (it being implicitly assumed that the compensation would occur subsequently within the family). From this Lewisian 'turning point' onwards, i.e., from the point where the labour market becomes tight and the wages upwardly mobile, the benefits of industrial expansion begin to percolate through to the workers and the rural population through higher wage rates. This could be called the Lewisian, or the industrial trickle-down process (ITRICK). At a subsequent phase, further releases of rural labour would require labour-displacing technological change in the rural sector. This, and any other rural productivity raising development would keep the flows of rural labour running into industry, but at a rising supply price leading eventually to the elimination of intersectoral wage differentials. In the process, capitalist industrialisation would remove rural poverty.

From the vantage point of the rural poor, it is not enough to confirm whether an industrialisation process is proceeding at a reasonably high rate through this absorption of rural labour; it is equally necessary to ask the second question as to whether its labour absorption capacity is sufficient to progressively reduce the backlog of rural surplus labour. Indeed, a third question follows concerning the time frame within which the Lewisian turning point in the labour market could be expected to be reached. If the answers to all three questions are not satisfactory, it would be futile to rely on the industrialisation-led trickle-down process to solve the problem of rural poverty: a strategic reorientation, or other forms of direct action relating to the rural sector would become imperative (though these could always be applied as adjuncts to accelerate a successful Lewisian process, of course).

The outcome of the Lewisian process for rural poverty depends upon a set of factors which partly reflect structural conditions, and in part the parameters of the growth process. The rate of growth of industrial output would depend firstly upon the rate of investment in the industrial sector, and secondly on the sectoral capital-output ration. Lewis placed great importance on the former variable, and declared the problem of development to be one whereby a poor economy would raise this rate from 4-5 per cent to 12-15 per cent. This acceleration in the rate of investment introduces a third critical variable, viz., the propensity of the capitalist class to invest productivity rather than to fritter away industrial profits in wasteful consumption. In turn, the demand for rural labour would depend upon the output elasticity of employment in the industrial sector which would be determined by the capital intensity of industrial production techniques. Would this rate of growth of demand for labour reduce the burden of rural under-employment? For this to happen the total increase in the demand for labour would have to exceed the total increase in the rural excess supply (if we ignore the possibility of using accumulated urban surplus labour) in the reference period. This condition can be satisfied for any initial specification of the relative sizes of the agricultural and the industrial sectors if the rate of growth of non-agricultural labour demand is sufficiently high in relation to the rate of expansion of agricultural labour supply. The latter introduces the role of the rate of expansion of the population in the recent past as well as in the future, and also of changes in the labour force participation rates of the population. It is worth noting that though the Lewis model used the simplistic family-farm device to characterise - or more accurately, caricaturise - the agrarian structure, it incorporated the negative impact that modern industry would have on indigenous trades and crafts, and assumed that ruined artisans would form one, albeit a minor, tributory to the outflows of rural labour into industry. Thus, internal structural changes - which could also incorporate the expulsion of rural labour and marginal producers as well, though this possibility was not seriously discussed by Lewis - could raise the rate of growth of the supply of labour. But assuming that the net effect would be one of the reduction of the backlog of accumulated surplus rural labour, the question of the timing of the Lewisian labour market turning point cannot be resolved except by relating the magnitude of the net outflow to that of the stock of

surplus labour. In this way, the turning point could be projected for a specific future year; but in so doing, it would be necessary to check whether the various parameters assumed would hold their values over the period of the projection. Thus, whether, and when, a poor agricultural economy in an early stage of industrialisation would reach the turning point when the benefits of expansion would begin to trickle down becomes essentially an empirical question the answer to which is contingent upon this very wide range of specific assumptions.[16]

Four other implicit elements of the Lewisian industrialisation model need to be elicited.[17] Firstly, the contribution of agriculture to the industrial process takes the form essentially of labour supplies. The problem of food supplies, or of agricultural marketed surplus, which has frequently been regarded as the central problem of development,[18] is left aside. The real wage was constant, and in effect the food supplies for the migrant workers would be sent, notionally speaking, in parcels by the migrant's food growing family which in the meantime would work harder to keep the food output constant despite the withdrawal of the labour of the migrant from the family farm. As far as the economy as a whole was concerned, more labour would be performed for the same food-wage bill. If one introduces the assumption of a positive growth rate of population into this framework, it becomes necessary to assume that agricultural output would also rise at the same rate (so as to keep the average per capita rural income constant). This corresponds to Geertz's assumption - made in the context of his 'shared-poverty', ecological involution thesis for Javanese development - that sawah rice agriculture had the capacity to absorb additions to the population at a constant level of average productivity [Geertz, 1963].

In conditions of land scarcity and diminishing returns to labour on the family farm, such an assumption involves a second implicit premise that this population growth would induce, or be independently accompanied by, a rate of technological change which would maintain this constancy of average agricultural productivity. Thus, the problem of food supply was relegated to a passive position in the industrialisation process. However, the model does consider the case where the rising share of profit income sets up an additional demand for agricultural wage goods which would shift the terms of trade in favour of agriculture and lead to rising wage costs for industry along Ricardian lines. Such an effect, which could possibly attract investment into agriculture or induce some technological change, might occur well before the sector ran out of surplus labour, though this change could accelerate the absorption of such labour to the extent that the additional investment and technological change created fresh opportunities for labour absorption. (Rising wage costs, per se, would tend to make the technological change labour-saving, apart from its land-augmenting effects.) This Ricardian shift in relative prices would also have a distributional impact in favour of the agricultural surplus producers (in Ricardo's analysis, profligate landlords; in Lewisian terms, presumably the family farmers), and thereby influence the rate of accumulation in industry, depending upon the savings and investment behaviour of these rural beneficiaries. Perhaps this

could be termed the Ricardian trickle-down effect, though its impact could be severely regressive in structural specifications where the rural landless formed a significant part of the rural population.

The Japanese experience of development highlights the importance of the Ricardian effects, which begin to operate well before the Lewisian turning point is reached. Japan went through such a phase in the earlier decades of the century when additional demand for food set up by rising population and the increasing per capita income (though not wage rates) could not be met from the indigenous agricultural sector producing under severe conditions of diminishing returns. Rising industrial wage costs - which would have been exceedingly damaging for the international competitiveness of Japan's export-led industrial sector - were then preempted by the systematic development of Taiwan (and to a lesser extent, Korea) as an 'agricultural province' of Japan.[19] Japanese economists date the Lewisian turning point in Japan at 1960; thus, cheap rice from the colonies had allowed the Lewisian accumulation process to continue for a few decades more. Unfortunately, through the exclusion of the critical role of the agricultural marketed surplus in the development process, the simple Lewis model is incapable of incorporating such effects into a characterisation of the industrialisation process.

Secondly, with respect to the question of the financing of industrialisation, it is implicit in the model that the prime source was the profits of industrial capitalists. This implies that apart from the labour flows derived from agriculture, industrialisation could proceed without the necessity to exact surplus tributes from agriculture in other financial or product forms. Indeed, the assumption of a generally subsistence agriculture - with no surpluses other than labour which itself had a zero marginal product with the prevailing technology - would imply that no possibilities existed for surplus extraction which did not require a prior investment of industrial profits into agriculture.

Thirdly, the same conditions also imply that neither the rural sector, nor the industrial workers could have set up a demand for products of the expanding industrial sector. The markets for the absorption of the industrial product would then have to come partly from the industrial capitalists, and in part from overseas buyers. The rural sector was thus disarticulated from the industrial sector to the point of being virtually independent, but for the requirement for labour.[20]

Fourthly, the model's specification of the mode of production within the rural sector is simplistic. Of course, its function was to provide the conditions under which an unlimited supply of labour would be forthcoming at a constant, near-subsistence, wage rate. But there is inadequate recognition of the impact that the rising industrial demand for agricultural products (and induced technological change in agriculture) would have on the internal production, organisational and ownership structures in the peasant sector. That such external demand - which is not recognised explicitly in the model in the first place - would form the stimulus and catalyst of

internal rural commoditisation and socio-economic differentiation is ignored. As such, the likelihood that successful industrialisation could, under certain specifications, generate further surplus labour and impoverishment goes unrecorded. This is a major lacuna.

3. Third World Industrialisation: An Experience of Unevenness

After four decades in pursuit of industrialisation, the experience of the developing world has been variegated both with respect to the pace and pattern of industrial development, as well as its hypothesised impact on rural poverty. Certainly in parts of Latin America, East Asia, some Southeast and South Asian countries, industrialisation has taken root, even flourished. On the other hand, in other countries in these regions, as well as in large parts of Africa, the industrialisation engine has been sluggish, or has even stalled. Even where the pace of industrialisation has been rapid in poor agrarian economies, it has in general failed to absorb rural labour at a rate high enough to move the economy rapidly towards the notional Lewisian turning-point where trickle-down begins. In the meantime, the perception that successful industrialisation would act as the catalyst has underwritten policies of benign neglect towards the agricultural sector. Consequent rural economic deterioration has then exacerbated the distributional effects of industrial failure. In contrast, where industrialisation has succeeded in the densely populated agrarian economies, the reduction in rural poverty cannot be attributed exclusively to the labour-suction effect; direct policies of rural development have made a significant impact in terms of the redressal of rural poverty; indeed, prior or simultaneous successful rural development policies made critical contributions to the industrial success in the first place, e.g., Taiwan, South Korea.

Table 8 provides comparative data on selected developing countries on the basis of which variations in development experience of selected developing economies can be scrutinised. All nine countries listed attempted an industrialisation-led strategy: Korea, Mexico and Brazil provide the success stories with respect to industrialisation; Indonesia and India perform reasonably well, though to an extent, the Indonesian (and Mexican) performance owes something to oil rents; the other four, which actually typify the majority of the developing countries, could be viewed as outright or qualified failures over the period. But even in the high or moderate performers, only Korea and Brazil show a decline in the absolute dimensions of the rural labour force; no doubt the relative magnitude declines everywhere, but that could be accompanied by a rising degree of underemployment in situations where the rural resource base is unresponsive and stagnant. Of these two, Brazil displays a high incidence of rural poverty, which still accounts for nearly one-quarter of the entire population of the country. Thus, the only unqualified success, in terms of the Lewisian industrialisation path, seems to be South Korea. After 40 years of moderate relatively steady development, India still retains two-thirds of its labour force in agriculture; the ratio having declined from an initial three-quarters. It

should be quite apparent that the rate and parameters of the industrialisation process have in general been such as to preclude the possibility of overcoming rural poverty by converting the rural poor into industrial workers at a sufficiently high rate. It is worth noting here that in terms of the Lewisian dictum, most of the countries have posted rates of gross investment (as a percentage of GDP) of about 20 per cent, starting from levels frequently below 10 per cent.

Since successful industrialisation can accelerate the removal of rural poverty whereas failure can impose a heavy and lasting burden on the rural sector, it is necessary to explain the divergence between, say, the Korean and the Tanzanian, Ethiopian or Bangladeshi cases. Usually Korean success is ascribed essentially to the export-oriented open market policies of the regime, and the failure of others to the inefficiency of protective import-substituting industrialisation. In this form, the statement represents at best a half-truth. At a cross-country level, between the adoption of an industrialisation strategy and its eventual outcome are a host of other intervening factors; not giving due recognition to these cannot but lead to a misreading of the role and consequences of the policy and strategic instruments used by the state.

Firstly, it is necessary to specify the period of reference over which a strategy and its outcome are being evaluated. All too frequently, in the cases of the Gang of Four, it is assumed that their developmental history begins with Japanese decolonisation. That the Taiwanese and the Koreans should ignore the contributions made by the highly exploitative, but also highly developmental, form that Japanese colonialism took in their countries should not, however, lead researchers to adopt a similar dismissive attitude.[21] Taiwan experienced agricultural growth of between 3 and 4 per cent per annum for a continuous period of 4 decades prior to the period that present-day conventional economists adopt as their 'starting point'; a similar, though differentiated and more industrially-oriented development also occurred in Korea under the Japanese, who had as their imperial economic policy the incorporation of these two regions as step-provinces, the former specialised in agriculture, and the latter more in certain kinds of industry. In contrast, taking India and Bangladesh, the period since the turn of the century saw a continuous attritional period of agrarian decline - even if at a low rate - alongside several decades of accelerated population growth. The contrasting results were rising agricultural productivity per person and per unit of land in the Japanese colonies, and the reverse in the British ones. The differential (and for South Korea, superior) initial conditions are readily confirmed by reference to Tables 7,8 and 9. In terms of the level of GNP per capita, the nature of the economic structure and relative importance of the industrial sector, the level of infrastructural development (as exemplified, say, by the degree of educational participation, and the level of energy consumption per capita), Korea had attained a position at the start of its post-war development phase that most African developing countries have still been unable to achieve.

Secondly, it is necessary to recognise the advantageous ecological environment that prevailed in East and Southeast Asia (though Korea was perhaps less favoured than most) in comparison with African conditions. The incremental capital-output ratios in agriculture, for example in Taiwan, were exceedingly low [Mellor, 1973]. Agricultural growth and development was easier, and at the same time more economically attractive as a potential source for financing industrialisation. Relatedly, the high infrastructural and educational levels of development, alongside a longstanding exposure to forms of industrialisation under the Japanese implied a high absorptive technological and organisational capacity in these economies which were exceptionally import, and foreign resource dependent in the early period.

Thirdly, again with respect to initial conditions,[22] it is necessary to pay due cognisance to the dramatically different international economic framework within which Korea and Taiwan, on the one hand, and most late developers attempted industrialisation. The former were given special trading privileges which provided wide access to western markets; they received foreign aid from the USA at unprecedented levels which have since been surpassed in normal conditions only by assistance provided to Israel; a combination of the American strategic interest and the rise of socialist China motivated the USA to force through thoroughgoing land reforms which has positive spin-offs for the subsequent extraction of agricultural surpluses at the margin without negative distributional consequences. In terms of the role played by external demand in the industrialisation process, it must be noted that Korea and Taiwan inherited the hand-me-downs of the Japanese textile and other low-technology local-resource export industries which had begun to lose international competitiveness in the face of rising domestic wage costs once Japan reached its labour-market turning point around 1960 (after a century of development). Together, with almost no other siblings to share these markets with, Taiwan and Korea could take over most of them as Japan moved upmarket in the export sector [Yamazaki, M. 1980]. Once these two attained maturity a decade later, the same hand-me-downs had now to be shared by the next generation of Asian developing economies; the difference was that these constituted a multiple of the size of the bequeathing two, so that virtually no receiving economy got enough to use as an engine of growth in their next phase. Most African economies are far down this line of inheritance.

Fourthly, the relative share of the agricultural population was much lower than in other developing countries - reflecting the prior period of development - and this meant that a relatively higher rate of industrial demand for rural labour could be generated by the same rate of growth of industry.

Despite all these favourable conditions, it took Korea and Taiwan approximately 60 years of more or less continuous development, based sequentially on Japanese, American and indigenous contributions, to reach the Lewisian corner. In this success, the contributory role of historical timing, pre-development experience, structural, ecological and geo-political

factors was critical, and provided a uniquely favourable, even if fortuitous, conjuncture which could launch such successful industrialisation. This is not to undermine the role of the policy makers and the other actors who recognised and grasped the opportunity; even less to undervalue the contribution of the indigenous working people to the financing of the process. Finally, even at the level of policy formulation, it has been conclusively shown that the Korean and Taiwanese cases provide exceptionally poor examples of development through market processes untampered by the visible hand of state intervention; furthermore that the successful export oriented phase was preceded by a lengthy preparatory period where import-substituting industrialisation was effected behind high protective barriers and a complicated system of administrative controls [Datta-Chaudhuri, 1982; Bagchi, 1987].

It is a combination of these structural, policy and special factors which resulted in a growth rate of GDP of approximately 9 per cent per annum being maintained over three decades. This is clearly an exceptional performance;, but still less than what is called for from a contemporary less favourably placed developing economy if it should aspire to benefit from the trickle-down springs located at Lewis corner.

4. Stalled Industrialisation and Rural Poverty

One disturbing tendency which characterises present development discourse is to conduct the analysis of the persistence of rural poverty essentially in terms of the attributes of rural development strategies. While the role of international trade fluctuations is recognised, the critical linkage of the experience of the rural sector with industrialisation strategies being followed is virtually excluded. Yet, while even in Korea it is necessary to draw attention to the direct rural development policies which accelerated the alleviation of rural poverty alongside the powerful industrialisation process; and again, while it might be theoretically possible to conceive of partially successful rural development policies being followed even in situations where the industrialisation process has been sluggish, or even a non-starter; one fundamental force which must account to a considerable measure for the persistence and even selective exacerbation of rural poverty must be the burden that an inefficient, unproductive and abortive process of industrialisation places upon a poor rural sector upon which it relies for its financing. This proposition deserves to be considered far more closely than has so far been done. The argument,[23] developed essentially with an eye to contemporary African economies, might run as follows.

Upon independence, an industrialisation-led growth strategy is adopted. Since there is virtually no prior industrial development to speak of, this large-scale expansion is financed not through the ploughing back of the internal profits of industry, but through the inherited agricultural surpluses generated by the dualistic patterns of colonial agricultural development which created export-oriented commoditised enclaves within a

poor agrarian sector; where sections of the peasantry also produced export crops, they were comprehensively controlled through state monopolies, especially in the exchange arena. The criticality of these surpluses for development leads to the perpetuation of essentially colonial mechanisms for the extraction of the agricultural surplus. Export taxes, monopoly procurements through parastatals at low prices, and overvalued exchange rates form part of the armoury of extractive instruments which the state could use, depending upon the circumstances. These surpluses are augmented by inflows of foreign resources which meet the resource gap. It is worth noting that even in 1960, Tanzania and Kenya had savings rates of 19 per cent and 17 per cent respectively, and investment rates of 14 per cent and 22 per cent; they were already there or thereabouts in terms of Lewis' 12-15 per cent dictum. From the point of view of the development of the poor peasant sector, such extraction - in favour of uses outside the sector - was condoned by the argument that these resources were essentially being borrowed; once industrialisation took off, they would be paid back to the peasant sector with a handsome dividend. (Even independently of this, it can be argued that in a poor agrarian economy, the state would need to tax such surpluses even if they were to be used for rural development schemes in other, poorer parts of the rural sector itself. The problem, thus is not so much with the extraction as such, as with the pattern and effectiveness of utilisation of such surplus transfers.)

Much therefore depended upon the success of the industrialisation process. It is here that the strategy has come unstuck. The industrial process in the late-developing African economies has proven to be exceedingly resource expensive; it has neither been self-sustaining, nor self-financing in general. While a detailed review is unnecessary, the basic reasons underlying this do need to be noted. Even apart from the negative contribution of low capacity utilisation, African industrialisation is marked by exceptionally high incremental capital-output ratios (ICORs). For the 1965-80 period, an approximate figure of 6.6 is indicated, compared with 3.3 for the Southeast Asian economies, and 4.6 for South Asia (see Table 10). (These are economy-wide ICORs, but they are likely to be reasonable proxies for the industrial sector.) For the more recent 1980-85 period, the African ICOR rises to a level in excess of 10, while the South Asian one actually falls to 4.3; the Southeast Asian one rises partly on account of the greater vulnerability of these economies to world recession, and partly on account of economic dislocation following political upheavals in some countries in the group. The high investment rates are therefore unable to generate levels of GDP growth rates that Lewis might have expected on the basis of the record of the early industrialisers.

The high ICORs are a product of several factors.[24] Firstly, African economies were, and remain, infrastructurally weak. At the early stages of industrialisation, the heavy investments required in these sectors raise ICORs. Secondly, this effect is accentuated by the need to invest heavily in the social sectors related to the satisfaction of basic needs; while these also yield economic dividends later, the effect for an extended period is to raise ICORs. Thirdly, the absence of an indigenous capacity implies a

correspondingly higher dependence upon imported equipment and technological processes. These are relatively expensive to begin with, with costs also getting inflated through tying arrangements insisted upon by foreign aid donors. They are also more problematic to run with the low level of human resource development, leading often to higher levels of technological inefficiency in operation. Fourthly, since modern processes usually favour larger scale production methods, the small economic size of the home market implies that reliance has to be placed on some form of cooperative regional market sharing and specialisation, or on open market competitive exports. Neither of these options has proven economically or politically viable, and as such, a certain element of structural excess capacity has been built in. Fifthly, there are considerable externalities in industrial development; ICORs would be much lower when industrial development was proceeding across a broad front, rather than in a few selected industries. Sixthly, in the absence of adequate local human skilled resources, reliance has to be placed on foreign experts; this raises the costs of projects substantially. Seventhly, at the early stages, there are other non-economic pressures on decision-making which frequently divert resources into expensive projects which have low economic dividends; the carcasses of such white elephants are not difficult to find in any African country. Eighthly, modern nation-building involves heavy defence outlays; these could place a higher relative burden at the earlier stages of development. Indeed, the prior claims of 'public administration' and 'defence' could often relegate productive industrial investments to a lowly rank in the order of priorities.

The inability of industry to pay for itself over a sustained period then accentuates the squeeze with respect to the financing of further development. The oil shocks of the 1970s made the situation dramatically worse for non-energy exporting economies. But, ironically, the consequent liquidity glut in the western economies also created favourable lending conditions whereby African economies were even more embedded in foreign debt. It was "a decade of frenzied borrowing", of the accumulation of a "staggering debt irresponsibly lent and irresponsibly borrowed" [UNICEF,1989:30]. However, this baling-out exercise hardly changed the structural conditions which made it necessary in the first place. The ensuing rise of the dollar and interest rates then dramatically raised the burden that debt-servicing imposed on the economy; the impact of the recession on the value of agricultural exports subsequently delivered another blow.

The implications of this industrial failure for the rural sector are obvious. Far from moving over time into a position where there would be reverse flows into rural development from a healthy growing industrial sector, the state of economic siege meant often a further intensification of the forms and levels of agricultural surplus extraction. Prior debt-repayment, industrial and other urban claims on the investible resources available accounted for a continued resource famine for the peasant sector, in general. At this point, special mention is required of one significant tendency observable with respect to policies towards rural resource allocation under such conditions. Greater emphasis comes to be placed on the

generation of an extractable marketed surplus, rather than on the expansion of production per se. A rising total product in the peasant sector also simultaneously creates the conditions for its consumption, especially when the poverty of the peasantry implies a high income elasticity of demand for food. On the other hand, the same inputs could be invested, instead, in a rich region, or in a captive institutional form, e.g., a state farm, where the state can guarantee a high rate of marketings and extraction, even if the total output is not as high. Such policies discount peasant consumption, and lead to the exclusion of the peasant sector from allocations of modern agricultural inputs and other state-financed infrastructural investments.

A parallel policy is the placing of special emphasis on the production of commercial industrial crops. Viewing the African rural sector as a whole, it is striking that for a continent so poor and precarious with respect to its food requirements, and which has steadily been increasing its reliance on food imports, its degree of self-sufficiency in industrial crops is a high multiple of that for food. This colonial legacy has been perpetuated on the one hand by the need to generate exports which, in turn, through systems of price-fixing and export taxation, provide the state with a substantial and indispensible budgetary financial source; on the other hand, it could be argued that it also follows the dictates of economic efficiency, in that it reflects the outcome of the application of comparative advantage criterion of resource allocation. With respect to the latter, one comment is necessary. While African rural resource allocation between exportable and non-exportable crops might well be justified, in general, in terms of prevalent world prices, it is pertinent to note that these world prices are themselves systematically biased by virtue of the capitalist industrialised nations not following this dictum when it comes to their own internal resource allocation policies vis-a-vis agriculture. The massive surpluses generated by official subsidies, which operate through different mechanisms in the USA and in Europe, pre-determine - from the African point of view - the relative prices of food and non-food in the world markets; as such, African choices of growing less food become "efficient" in the face of prior unquestioned western inefficiency. Should such subsidies not prevail, and the food surpluses also be run down, it is evident that relative food prices would be higher, as would the prioritisation of food crops in the rural resource allocation plans of African economies. This would be of special significance to the issue of African rural poverty if it could be further demonstrated that a lower degree of self-sufficiency created a situation where food consumption was adversely affected; in that case, export-crop specialisation coupled with food-import dependence could be regarded as an element contributing to nutritional inadequacy; further, in this situation, the domestic subsidisation policies of western nations could be legitimately regarded as a poverty augmenting factor. (On the other hand, the qualification is necessary that to the extent the rural poor were landless or marginal food-deficit farmers dependent upon the market, food imports (and releases) at prices lower than might have prevailed in the absence of surplus production in the developed economies, would tend to have the opposite effect.)

These extractive processes have their institutional and political counterparts. The functional relationship in which the agricultural sector was placed within the industrialisation process is also a partial reflection of the relative lack of the political resources enjoyed by the rural classes within the new political arena. In the few instances where egalitarian and participatory rural institutions were developed as agents for change, their effectiveness was severely constrained at the outset by the powerful disincentive effects of the rural extractive mechanisms which the resource hungry-process of state-centred accumulation could not do without [Putterman, 1985]. In this context, it is worth recording that a comparative analysis of the African economies which adopted non-capitalist paths of development do not provide patterns which are essentially dissimilar.[25] The central variation is usually the initiation of a certain measure of rural institutional reform involving the creation of peasant associations, cooperatives or other groupings. These have the effect of eliminating the more extreme ends of rural poverty, and creating a basis for future resource absorption and local development. But on the whole, the need for resource extraction also implies a denial of meaningful local economic control over the surplus product, and hence such new rural institutions have as often as not become the means by which superior state political power and control penetrates the countryside in a manner more comprehensive than was previously possible. Unfortunately, such economies have also encountered a particularly hostile international environment, and have entered their period of non-capitalist development usually in the form of a war economy; this has meant that economic options have been even more drastically constrained.

One final factor, which overarches this process, needs comment. In contrast to the development phase of the now industrialised economies, contemporary developing economies have experienced the benefits of fundamental improvements in the area of public health and the control of epidemical diseases. The far higher growth rates of population, which are a multiple of those which Japan or Western Europe experienced in their development era, then demand correspondingly higher levels of performance in terms of the growth of the national product; given the much higher ICORs, this now calls for exceptionally high investment rates. But in contrast, the levels of development of the African economies at the 'starting point' of the industrial race are such that domestic rates of savings can only meet a small fraction of this demand; in addition, even if savings were forthcoming from an exceptionally rich natural-resource base, the absorptive constraint could still be an ultimately restraining factor. There has been a tendency in developing economies with a rich land or other natural resource base to deemphasise, if not altogether reject any notions of restricting the rate of growth of population. Two factors underlie such an attitude. Firstly, the anticipated success of the industrialisation and accompanying urbanisation processes could themselves be expected to lower the growth rate over time. Secondly, the size of the population has been compared with the carrying capacity of the economic and natural resource base. This type of exercise invariably provides an 'optimal' population size which is much larger than the prevailing one; in turn, it generates complacency. In some countries,

e.g., Malaysia, politicians actually exhort the population to raise its growth rate. However, this comparative static framework is flawed. The critical question concerns the relationship between the rates of growth of variables; should the employment and food balances not be met, the economy might still reach the projected population size, but in an undesirable socio-economic state. Viewed thus, the high growth rates of population in African economies have further augmented the demands placed upon the growth process [Saith, 1985b].

Taking stock of the African industrialisation process, while it would be true to say that the dimension of the industrial sector has undergone a major expansion in comparison with its past levels, the overriding conclusion at the present juncture must be one of a process which has stalled, if not failed, in its early stages. Given the relative magnitudes of the relevant variables, neither the pace nor the pattern of industrialisation has been such as to move these economies towards the Lewisian turning point; if anything, they have slid further away from it. Lewisian trickle-down has not, and is not likely to occur. On the other hand, in conditions involving a poorly performing food sector, the relative price of food might have been expected to rise; and given the relatively egalitarian access to land in the countryside, this might have argued in favour of the operation of a positive Ricardian trickle-down effect through an improvement in the terms of trade. However, these effects have been precluded, in general, by state intervention in agricultural markets through parastatal monopolies procuring agricultural output at below-market prices.[26] In the meantime, policies for rural development have suffered on account of the primacy accorded to the needs of the industrialisation process and related urban demands. Not surprisingly, the outcome has been a perpetuation, if not generally a deterioration with respect to the nutritional status of the population, paradoxically accompanied by upward-looking indicators on various quality-of-life variables.

It might be useful to extend the discussion of contrasting industrialisation processes to include a case which occupies a distinct position in relation both to the East Asian successes, as well as the African failures, viz., India. At the level of strategic thinking since the 1940s, and in terms of implementation since the start of the Second Five Year Plan in 1955/56, Indian development has followed essentially an industrialisation-led growth path. At the outset, India boasted a relatively large diversified industrial sector, and an experienced, though narrow, capitalist class. Its level of infrastructural development was substantial and included the availability of a sizeable class of university-level educated persons, and its resource base was considerable. There was a substantial volume pf surplus labour, but also surplus product in the rural sector, where early anti-landlord reforms had created a significantly differentiated peasantry displaying a fairly high degree of inequality in land ownership and resource control. The new class of rural kulaks, which emerged with the land reform, constituted one of the twin pillars on which the ruling Congress Party rested - the other being the regionally and community-wise differentiated capitalist classes. The Constitution

restricted the powers of the Central Government with respect to interfering in matters dealing with agriculture; and the provincial legislatures, in which such powers were mainly vested, were usually under the sway of the local rural landed classes who dominated the electoral machine on which the Centre-based ruling party eventually had to rely for reelection. Further redistributive reforms, land or agricultural income taxes, or extractive inter-sectoral price policies were thus not readily implementable, even if the more radical elements of the planning intelligentsia, or the central government political leaders, or even the crusading 'progressive' capitalists, did devise wishful plans of this type from time to time.

With such routes to rural poverty redressal preempted from the outset, the development strategy placed heavy reliance on industrialisation for achieving a fundamental structural transformation, essentially along Lewisian lines. Agriculture had not really been regarded as a potential source of surplus for the financing of industrialisation. The experience of the 1950s with respect to agriculture, where the Indian economy briefly encountered the unusual condition of agricultural glut and price collapse, encouraged the view that sufficient slack existed in the sector to meet whatever demands were set up by the industrialisation process, a position subsequently reinforced by the availability of American surplus PL480 grain. Further, in keeping with the Lewis framework, the rural sector was not really viewed as providing the market absorbing the industrial expansion either. In short, industrial development was viewed as being virtually independent of the conditions of agriculture.

These features were formalised in the Mahalanobis planning models which charted the trajectory of planned development. Following the inspiration provided by the early Soviet experience, the commanding heights of the economy were to be in the public sector, and a very high share of the incremental investment was to be directed there, initially with the support of the capitalist classes which shrewdly recognised this as opening up future possibilities which they could not on their own steam have generated. The accumulation conscious state planning machine was to replace the capitalist with a view to ensuring that the rate of investment and ploughback were not jeopardised by the profligacy of the industrial barons. To accelerate the process of growth, a strong emphasis was placed on the development of the capital goods (or machines-to-make-machines) sector within industry. The distributional consequences for the present generation were realised as being unattractive, in that resource use was to be diverted away from current consumption. In the long term Lewisian trickle-down was expected to do the trick. In the meantime, it was hoped that the feeble land reforms enacted - feeble from the point of view of reaching the real rural underprivileged classes which occupied echelons well below those of the recent beneficiaries of the anti-landlord land reform - would provide a cushion. In addition, a compromise was provided in the form of an employment generation sub-strategy based on restricting future expansion in the low-count textiles to the more labour-intensive, rurally oriented small-scale handloom and powerloom sector.[27]

It is instructive that such a well-augured industrialisation process ran well for the first decade but subsequently came progressively unstuck. No uni-causal explanation can fit the complexity of Indian reality; yet certain basic elements need to be emphasised. The outlet for industry was to be import-substitution, not overseas markets. To some extent, a combination of the necessary protective barriers, and the bureaucratic management of industry made this self-fulfilling, in that these factors, combined with the lack of internal competition in a monopoly-house dominated internal market, preempted any thrust towards achieving international competitiveness, as happened, say, in the Korean case where the survival of industry depended upon this being achieved expeditiously in the course of its similar import-substituting phase. For the Indian mother-machines sector, following the Soviet experience, demand was internal to the sector, and hence conditional upon maintaining a certain momentum in the rate and pattern of accumulation. This is what turned out to be the Achilles heel of the ambitious Mahalanobis strategy. Though the model had been borrowed from Soviet economists, it was not being applied in a Soviet-type economy. Various factors intervened in the decade of the 1960s.

Firstly, from the early 1960s, food prices began to rise, aided by the expectations generated by the Indo-China war of 1962. The 1965 war with Pakistan, and the bad harvests of the mid-1960s fuelled these tendencies, which were dampened somewhat by PL480 imports. Fears of food inflation, not reckoned with in the optimistic assumptions about the non-existence of the wage-goods bottleneck, formed one reason for the Government to cut its development budget.

Secondly, by now, the maturing capitalist class had begun to view the continued expansion of the public sector with some trepidation; it was viewed with some justification as a competitor for specific scarce resources. For instance, even in the late 1950s, foreign exchange was subject to severe rationing, and the capital-goods industries were great guzzlers; a zero-sum game emerged in this area. Related to this was the perception that the public sector had run the first lap commendably, and the time had come for it to hand over the baton to the private sector, which was now ready to make the running.

Thirdly, following the Soviet tradition in planning models, the demand side was never really endogenised in the exercises. The high rates of investment, the restrictions placed upon consumer goods industries etc., all had to have real counterparts in fiscal or other incomes policy interventions which would match the output-mix thrown up by the industrial process with the pattern of demands generated by the prevailing distribution of income. The political process was quite unable to control and restrict private consumption in the manner that characterised the Soviet industrialisation drive where the capital goods industries could virtually expand on the basis of internal demand, since the income distribution could be made forcibly to match the product-mix. To make matters worse in the Indian case, the public sector heavy industries in turn generated backaward-linkage demand for a range of supplier, private sector industries. Once

governmental investment could not be maintained at the required rate, a major recessionary force was unleashed; and since the 'infant' industries were far from being internationally competitive, foreign markets could not replace the demand lost with the relative contraction of public sector investment.

The outcome is summarised in the statistic that the share of manufacturing in GDP, which stood at 14 per cent in 1960, had risen reluctantly to 17 per cent by 1985, a rate of progress difficult to think of as an industrial revolution or a great leap. Over the 1960-80 period, the share of agriculture in the labour force declined from 74 per cent to 70 per cent, which again hardly provides an exemplary case of the Lewisian labour transfer mechanism. What makes this additionally significant is that this period has seen impressively high rates of savings and investment in the Indian economy. The first phase of Indian industrialisation thus provides another piece of evidence against the Lewisian trickle-down proposition. In the first place, despite generally favourable initial conditions, industrialisation did not proceed rapidly enough; for another, it generated demands of the agricultural sector which it could not meet and the ensuing inflationary tendencies probably wiped out - in general terms - whatever benefits might have accrued to the rural poor through the expansion of industrial employment.

III. RESTRUCTURING DEVELOPMENT PROCESSES: AGRICULTURE FIRST

1. Does Agricultural Trickle-Down Work? The Neo-classical Parable

Perceptions of the relative failure of industrialisation strategies in the poorer developing economies have filtered into development discourse since the 1970s; the exogenous oil shocks of that period, and the impact of the prolonged recession have pushed development theory and practice into a state of crisis. As part of a response, the original ideas on trickle-down (viz., on ITRICK) have undergone a reformulation: the position of industrialisation as the prime mover of trickle-down is transferred to agricultural growth. In the revised version, agricultural trickle-down (or ATRICK) argues that even within the prevalent inegalitarian institutional and property-ownership structures that characterise most developing countries (especially in Asia and Latin America), growth of agricultural GDP would trickle-down and remove rural poverty [Ahluwalia, 1978]. While the original version of this relied on the Indian case as its empirical testing ground - for reason presumably of the ready availability of time series data on the relevant variables - the proposition has been construed as having general validity. The central strategic or policy directive which emerges is that the agricultural growth rate has to be treated as the pivot. By default, agrarian reform is side-tracked and is argued as not being a necessary condition in this strategy. So also, industrialisation receives virtually no mention; in the econometric equations which appear in the numerical versions of ATRICK, there is generally no term which reflects

conditions in, or linkages with, the industrial sector. In this respect, ATRICK pays back ITRICK in its own coin, though it is important to note that while agriculture plays a completely passive role in the Lewisian framework, there is no similar presumption about industrial development in the ATRICK version; for instance, even within the ATRICK framework, agricultural growth might itself be contingent upon a certain rate of industrial expansion.

One might view ATRICK as an acceptance of the inability of the inter-sectoral labour transfer mechanism to serve as the key instrument of trickle-down; even where industrialisation has been moderately successful, as for instance in the Indian case itself, rural poverty did not really decline over time (except, perhaps, and this itself is contentious, over the last decade under the impact of special factors). It seems logical then to argue that if the rural poor cannot reach the sector where the growth takes place, the growth process must be brought more to the sector where they reside.

However, ATRICK must not be read as a rejection of industrialisation, since it could be held that one factor contributing to industrial failure was the lack of priority given to achieving a prior satisfactory level of rural development. This view also leads to a strategic reformulation in favour of "agriculture first", without necessarily subscribing to the ATRICK version of the effect of such agricultural growth on rural poverty. This version (AGFIRST) could theoretically still rest on the Lewisian ITRICK notion; the strategic orientation in favour of agriculture would then be regarded essentially as a means of firing the engine of industrialisation, through creating conducive demand-, or supply-side conditions.

The complexity of the Indian ATRICK debate owes much to the embarrassing richness of, and (perhaps consequent) conflicts between, alternative data sources, and the alternative methodological approaches that such data permit. Bearing in mind that for the foreseeable future rural India will continue to provide the largest single concentration of the poor of the world, it might be appropriate to provide a brief overview of the state of the debate. The first issue is whether the time series data can be interpreted as showing a trend decline in the incidence of rural poverty. Ahluwalia and others have argued that this has been the case, whether considering the data till the early 1970s, or the early 1980s. Such a conclusion has been questioned [Griffin & Ghose, 1979; Saith, 1981]. With slightly truncated data sets - the justification for which was to be found in statistical weakness for the earliest and the 1973/74 benchmarks - the trend could well have been a rising one. It was also pointed out that if a slightly truncated data set provided a strong result indicating a rising trend, while the introduction of a single observation at the end period weakened, or even removed such a trend, it did not follow that the experience of the poor over that period had been one of no change; rather it meant that after more than a decade of deterioration, they had encountered a couple of good years, a situation intrinsically distinct from one of 'no-trend' or weak-trend towards a decline in the incidence of rural poverty. However, the data for the two subsequent benchmark years, 1977/78 and 1983

throw up figures which are clearly lower than the earlier trend levels. This has quickly been interpreted as conclusive evidence of the operational validity of ATRICK. However, some doubts still remain about such deductions. For one, coincidentally, it happens that these recent benchmark years (for which data for poverty estimates are possible to calculate) are also ones of a clear above-trend performance in agricultural growth. If data for the other years had also been available, it is not impossible that the trend line might have had a slope not much different from that for the earlier run of years. For another, the choice of the data used for estimating the poverty estimates has been questioned: using alternative consumption estimates based on other - but no less acceptable - sources would yield poverty figures which would have been much higher. As an unsettled compromise, the present consensus could be described as one of no-consensus over the overall trend in the incidence of rural poverty.[28]

Does this imply a rejection of ATRICK? Once again, various nuanced responses are possible on the basis of the evidence. Firstly, it can be taken as common ground in the debates that, other things being the same, a higher agricultural growth rate would tend to reduce the incidence of rural poverty. In all the econometric specifications of tests of ATRICK, the variable defining agricultural growth is found to be negatively related to the incidence of poverty. The failure of the overall trend in the incidence of rural poverty to decline over time has then been attributed not to the absence of trickle-down mechanisms as such, but to the fact that over the period, the rate of agricultural growth itself was very low; it is then argued, that had this growth rate been 'high enough', ATRICK would have worked, i.e., rural poverty would have declined. The policy significance is clear; the need is to generate a faster growth rate of the agricultural GDP variable.

Secondly, it was pointed out that the incidence of rural poverty was directly related to inflation (measured in a manner appropriate for the classes of rural labourers and food-deficit market-dependent marginal farmers who together constitute most of the poor) [Saith, 1981]. Various reformulations and specifications of this inflation term have confirmed its impact on rural poverty. Implicitly, its effect on poverty can be negative only if the rural labourers cannot respond to an increase in the price of food by raising their money wages to achieve full compensation. This points to the need to analyse the data on the wages and earnings of rural labour and marginal farmers over the period, keeping in mind the changes in the size of these groups; such an exercise could provide direct evidence for the effect which is attempted to be caught indirectly in the econometric exercises through the specification of the inflation variable. It is possible to add a couple of points by way of interpreting this result. It could be read to mean that for any given rates of expansion of population and non-agricultural income, a certain growth rate of agricultural output would be required to prevent inflationary trends in food prices. From this, the ATRICK proponent could argue that this reemphasises the importance of generating a 'high enough' growth rate. Now, there is one (though not the only)

objective condition which could define what is 'high enough': in this context, it would be a rate sufficiently high to prevent the inflationary variable from cutting into whatever positive impact the agricultural production variable was achieving. However, this is by no means the only interpretation possible. It has been demonstrated effectively that the price formation process in the food sector is strongly influenced by political variables [Mitra, 1977; Saith, 1978; 1981]. The outcome of the political price-fixation process was found to be critically dependent upon some of the structural features of the agricultural growth process in the first place. It was the very concentration of agricultural growth in certain regions and classes that had created the new kulak lobbies, and endowed them with the political threat-power which had altered the nature of the agricultural pricing policies of the state [Saith, 1978]. This had meant that far from the relative price of food declining in the face of a discontinuous upward shift in the growth rate (over the decade from the mid-1960s to the mid-1970s), it had improved somewhat as a consequence of the policy of providing unlimited market support at high procurement prices. It follows then that the very conditions which created rapid growth - albeit in a sub-period - also altered the rules of the game in such a manner that the projected benevolent impact on food prices did not materialise. This can also be read to mean, that within the prevalent institutional framework, it might prove difficult to devise agricultural price policies which could cut out the negative effect of the inflationary variable.

Thirdly, the question has been raised whether, after taking into account the effects of agricultural production growth and of food-price inflation, there was any residual trend in the incidence of rural poverty [Saith, 1981]. The logic underlying this may be clarified with a simple illustration: if the same agricultural growth rate was achieved in two situations, one which involved the expulsion of tenants by a landlord class which decided to shift to mechanised owner cultivation, and the other which involved the retention of the impoverished tenants, the impact on the incidence of poverty of the identical growth rate of output could be quite different. The residual time-trend variable thus could serve as a catch-all for the combined effect of unspecified structural and other changes which accompany the growth process. In several exercises and specifications, this has been found to be positive, i.e., implying that accompanying unspecified variables (definitionally identified with the residual time-trend term) had a tendency to raise the incidence of rural poverty over time. This result is contentious, but this statistical argumentation cannot invalidate the substantive point that the degree of the impact of agricultural growth on rural poverty would depend upon its structural and technological characteristics. The argument then could be made - for instance with reference to the fast-growth sub-period - that the growth itself was possible on the basis of certain specifications of the structural and technological conditions which biased the growth process against the poor. The implication then would be that the positive impact of the variable measuring agricultural production would have to be 'corrected' for the negative impact caught by the residual time-trend (on the assumption that this reflected the impact of the attributes of the same growth process).

Fourthly, in considering the entire reference period, extended to include the more recent benchmark observations showing a decline in the incidence of rural poverty, an additional, critically important qualification emerges. Partly in recognition of the failure of earlier development to reduce the incidence of poverty, and partly out of political expediency, substantial resources were diverted into special government programmes formally directed at the rural poor. While the leakages and inefficiencies of these programmes have been widely documented, the sheer scale of expenditure injected in the sub-regional and rural economy was such as to have made inevitable a certain impact on poverty alleviation. Though disagreements exist over the precise dimensions, as well as the sustainability, of this impact, that it was non-negligible for the sub-period concerned is generally accepted as common ground. Doing so, of course, implies that the explanation for the reported lower levels in the incidence of overall rural poverty for the later sub-periods could be attributed to the impact of these schemes rather than to the character of such agricultural growth as occurred.

The collective burden of these qualifications and objections to ATRICK is to emphasise that it is not very insightful to bluntly relate the magnitude of the agricultural growth to the incidence of rural poverty without paying heed to the nature of the growth process, and to the structural and institutional conditions within which it operates. Nevertheless, few opponents of the simple ATRICK doctrine would wish to deny unconditionally that a 'high enough' growth rate, maintained for 'long enough', would reduce rural poverty to a 'low enough' level. The problems arise at three levels. Firstly, can a 'high enough' growth rate be generated and sustained for 'long enough' within the prevalent institutional framework (which ATRICK is usually at considerable pains to exclude from the discussion over policy instruments)? What if 'high enough' and 'long enough' translate into a demand that the Indian or Bangladeshi economy should, over the coming four decades, perform better than the Korean economy over the past three? Secondly, given the absence of initial egalitarian interventions in the countryside, is it not possible that even very high growth in agricultural product could leave the problem of rural poverty essentially unsolved? What is to ensure that the outcome of growth will be in the Korean image (with respect to the incidence of poverty) rather than in the Brazilian one (where the miracle is that despite the miracle, rural poverty incidence apparently stood at 73 per cent in 1975)? Thirdly, is there no superior way of removing rural poverty within a framework of sustained economic development? Or, what are the socio-political, or welfare, grounds on which the derivation of growth strategies is restricted to a feasibility set which imposes as a condition non-intervention in essentially inegalitarian and obstructive institutions?

Leaving aside the last question, a degree of self-doubt within the ATRICK framework with respect to the likelihood of reducing the dimensions of rural poverty in the foreseeable future has led to yet another reformulation of the doctrine. A distinction is drawn between the 'poor' and the 'very poor' [Lipton, 1983]. In itself, this is hardly controversial; indeed distinctions such as these have been systematically made with respect to the

question of targeting of special anti-poverty policies in the countryside. The antyodya rule, for instance, advocates selecting the poorest person first as a beneficiary. The distinction here is that it is posited - more by assertion than by demonstration - that the benefits of the growth process do not trickle-down to 'the poorest'. ATRICK is held to work for all but the poorest, (according to [Lipton, 1983]). The poorest were prevented, on account of some socio-economic attributes they displayed, from joining the trickle-down queues. This reformulation, or LIPTRICK, contends that with respect to demographic, nutritional, labour market, asset-ownership and other variables, it is possible to observe a discontinuity - in the form of a reversal or a point of inflexion - in their distribution over households ordered according to their averaged per capita income. The strata below the kink are then defined as being 'the poorest.'

LIPTRICK, in its present form, is more attractive in its packaging than in its content. Firstly, Lipton's evidence, drawn from a few scattered data sets, is far from conclusive with respect to the question of discontinuities. All too frequently, the break does not show up at all, or requires a certain degree of assistance from a sympathetic imagination to recognise. Secondly, when it does, it does not always do so at the very bottom. Thirdly, for the variety of different variables, the breaks, even when recognisable as such, appear at quite different levels of mean household income per capita. If 'the poorest' as a group are hypothesised to display common structural attributes distinct from the non-poor, and if 'the poorest' are to be defined in terms of the discontinuity, then this break should not appear at widely different size-classes for different vaiables. Fourthly, at the all-India level, for instance, the dimensions of 'the poorest' on this criterion would be narrow enough to question the intrinsic utility of the distinction. Certainly much more systematic and convincing empirical evidence is necessary before any such notion could be admitted into the debate as an analytical category.

This has not prevented Lipton from offering LIPTRICK as an explanation for an observable tendency - reported by the World Bank with respect to its projects - that the benefits of development schemes have excluded the bottom 20 per cent of the population. This, of course, requires making the further assumption, since there is no demonstration, that the point of discontinuity corresponds also to the point where flows down the trickle-down drains get clogged.

It is also insightful to note that LIPTRICK sets out to discover reasons for the blocked drains other than the powerlessness of the poorest; the idea is to seek reasons which are to do with economic, human resource, or labour market factors which are thought to be redressable within the prevalent institutional framework. It also has the obvious effect of whittling down the dimensions of the problem of rural poverty to manageable proportions. If 'the poorest' were always unreachable anyway through growth, the impact of past growth on poverty must be reviewed within that framework. Viewed thus, ATRICK could be said to have worked much better; the problem was not that it had not performed as it should have, but rather

that too much was wrongly expected of it. Once LIPTRICK adjusts the sights of expectations, the go-for-growth strategy regains the centrestage. As far as the poorest are concerned, special programmes are called for which would allow them to compete successfully in labour markets at the lowest level; i.e., these special programmes are needed to lift the poorest across the point where the drains get blocked.

The policy relevance of the distinction between the poor and the poorest gets indirectly questioned by the finding, recently reported on the basis of an analysis of a large sample of Indian household-level panel data, that chronically poor households - defined as those which were poor in each of three consecutive years - were not necessarily also the poorest; they tended to coincide more with strata above the poorest [Gaiha, 1989]. Thus, the poorest were found to display a high degree of income mobility over the three years. This finding is damaging for the LIPTRICK notion of the poorest, where they are held to display certain common structural features which keep them out of the economic game, and which could not be expected to alter dramatically in such a short time span. The data on the basis of which this thesis on the poorest is derived refer to single-year observations, and hence must be regarded as being potentially subject to the same type of fluctuations as the panel data. From a medium-term policy point of view, it might be more meaningful to worry about the chronically poor, rather than the poorest, if the latter are indeed such an unstable category.

2. Agricultural Growth, Commoditisation and Surplus Extraction Strategies

Thus far, the debates on the validity of ATRICK have tried to test statistically for the reduction in rural poverty alongside agricultural growth. The positive partial correlation between the two led ATRICK proponents to argue that the difficulty was not with the trickling-down of growth, but with the growth rate itself being too low. This raises two questions: first, what would be an appropriate agricultural growth rate which would trigger off effective trickle-down mechanisms? And second, could agricultural growth of such an order be generated within the prevalent institutional and macro-strategic framework in the first place?

With respect to the former question, let us require economic growth to be of an order that will absorb the additions to the work force, and also generate a supply of wage goods (i.e., agricultural, or more particularly food production) that will meet the demand generated by the additions to the population as well as by the increase in per capita income. Let us also assume, realistically, that the output elasticity of employment in the economy is 0.5; that the income elasticity of demand for food is also 0.5; that the incremental capital-output ratio for the economy is 4; that the rate of growth of population, as well as the labour force, is 3.0 per cent per annum. Then, maintaining the employment balance would require a growth rate of GDP of 6.0 per cent per annum. This would imply an increase of per capita income at 3 per cent per annum. In turn, maintaining the food balance would call for a rate of growth of food production (or availability,

to be more precise) of 4.5 per cent per annum. If the food balance was not met, but the employment balance was, (as might happen in a rapid industrialisation process where the agricultural sector was largely ignored), food price inflation would occur, and the poorer sections of the population would have their food entitlements squeezed through the market, which would eventually restore the food balance through imposing a lower overall value for the elasticity of demand for food (by increasing the share in total food claims of those (richer) classes which had elasticities lower than the average value, of 0.5 assumed for the economy as a whole). If the employment balance was not met, sections of the population would not be able to generate financial claims, or entitlements for buying the food, even if it was available; in turn, the relative price of food could be expected to drop, with the benefits going disproportionately to those who did have financial claims through employment.

In terms of the employment and the food balances discussed earlier, a speculative deduction could be that over time, the tendency in the pattern of technological change in the economy as a whole would raise the capital intensity in all sectors, and hence lower the value of the output elasticity of employment; at the same time, so long as per capita income grew at a positive rate, the overall value for the income elasticity of demand for food would tend to fall. The combined tendency would then be to increasingly give to the problem of poverty the dimension not of a shortage of food production, but rather of the lack of an adequately broad-based generation of income entitlements through access to employment.

In general, these balances could easily be violated even when the growth rates of employment and food production were in excess of that of the labour force and the population. Of course, the poor, who would be excluded through these violations, would tend to respond through their survival strategies. These might involve trying to reenter the labour market not as full time average-productivity wage employees, but as low productivity self-employed producers of goods and services in sectors where differentiated demand allowed for such supply-side competition and market entry; or there could be systems of employment and income sharing, where the employed members of the family informally support those who could be said to be affected by the violations of the two balances. Such responses could mitigate the regressive distributional impact up to a point, but could not realistically be assumed to overcome the problem altogether. In such cases, growth would be distributionally regressive.

In our example, which adopts plausible parametric values, the required rates of GDP and agricultural growth are 6.0 per cent and 4.5 per cent per annum. How realistic are these? The experience across the developing economies provides an unequivocal answer. Apart from a very short list of mostly East Asian economies, such rates have not been posted over any reasonable time span by any third world country. It needs to be noted that if forms of employment, income and food sharing are assumed, the twin balances could be met at much lower levels of performance. But given a highly inegalitarian institutional framework, and also government policies

which are increasingly reluctant to cover those excluded by the balance violations from food entitlements, the required growth rates rise correspondingly. Hence, the demands that ATRICK places on itself, through wishing not to disturb prevalent vested institutional interests, reduces the credibility of its claims of realism.

Of course, within a long-term framework, the very low levels of agricultural productivity and input-use themselves testify to the possibilities of very considerable improvement. The relevant issue however, concerns the relationship between the actual and the required rates of improvement per annum. ATRICK's essentially neo-classical framework would identify the sources of growth along Schultzian lines. If peasants were poor and inefficient, a shift to the point of economic efficiency on the prevailing production possibility frontier would constitute the first source of growth. Once this was achieved, further growth could come from two other sources. Firstly, the inter-sectoral terms of trade could improve for agriculture, thereby leading to an intensification of cultivation; secondly, technological change could lead to an outward shift of the production possibility frontier even without changes in the terms of trade. These also constitute the key elements in the ATRICK recipes for reviving agriculture in Africa. While additional investments and price incentives are clearly necessary, this type of neo-classical reductionism ignores the crucial role played by other structural and organisational factors. Within South Asian agriculture, for instance, a serious constraint is imposed by the structure and fragmentation of agricultural operational holdings which have shifted an increasing proportion of the cultivable land into such small sized plots and holdings as to render exceedingly difficult the effective absorption of improved land-augmenting technological change beyond a point. At the same time, the absence of alternative opportunities of employment and income generation elsewhere in the economy, coupled with fairly high rates of growth of population and labour force, has discouraged such petty land owners from giving up their land rights in favour of a full-time participation in the labour market. This is compounded by a considerable degree of indivisibility in the nature of agricultural technological packages (on account of the critical input of irrigation being relatively indivisible), and by the inability of hire markets, in view of the importance of risk-aversion as well as the criticality of the factor of the timeliness of agricultural operations, to overcome this structural constraint. Some reverse land-leasing has been observed in such situations; and some researchers have spotted a new (though very rare) phenomenon where agricultural service companies have emerged catering to this type of constrained clientele. In the main, however, unless major institutional interventions occur, such constraints are likely to continue to restrict the rate of technological change and the growth rate of output.

Will agricultural growth be egalitarian, or will it leave the incidence of poverty unaffected, or generate even further immiserisation in the rural sector? Will the discouraging experience of the past be replicated by such growth as occurs in the foreseeable future through the market, incentive and technology oriented policy packages now being mooted? We have noted already

that if the required employment and food balances are violated, the process of growth in any inegalitarian institutional environment is likely to have regressive distributional consequences. It is necessary to analyse this question not in terms of such aggregate variables, but in terms of the inherent socio-economic features of a growth process as it might be expected to operate in alternatively specified structural and institutional rural environments. Further, it is important not to treat, as contemporary analyses of the subject have erroneously done, the process of agricultural growth in isolation from its inter-sectoral linkages or its functionality with respect to the industrialisation process. Alternative analytical characterisations are possible, but to be able to identify and differentiate them appropriately, a prior comment is essential on what constitutes a 'process'. For the present purpose, it may be defined as a combination of a set of three elements which permits an explanation of the transformation of a given situation into a new one. The three elements critical for this are: firstly, a specification of the rural economic, organisational and institutional structure; secondly, information on the nature of the stimuli that operate on any given structure; and thirdly, the responses which the application of the stimuli elicit with respect to variables of central interest.

'Structures' could be of several types. At one end, one could specify a communal peasantry characterised by a highly egalitarian system of access to land and other means of production, to work, and income. A second type could be a relatively egalitarian peasantry but one where there was a noticeable degree of stratification with respect to control over productive assets and power; typically, the low level of inequality is partly a consequence of an open land frontier, and a low level of technological development which rules out labour-displacing mechanisation within cultivation; the degree of landlessness could well be very low in this case. A third type involves a highly stratified peasantry where the land frontier has long been closed, and where the means of production and the control over power is concentrated in a very narrow stratum; at the bottom end, such a structure includes the existence of a large section of landless agricultural households which operate in the labour market for survival. A fourth characterisation is one where the rural economy is dominated by a class of non-cultivating landlords who rely on small tenants for cultivating their large estates which are parcelled out to share-croppers; land and political control are concentrated in the extreme. Fifthly, it is possible to stipulate other forms, such as large-scale commercial farms, state farms, plantations, etc. Typically, these coexist in a symbiotic relationship with a peasantry of one type or another, there being substantial economic, especially labour, flows between the two. (For convenience of exposition, pastoral and other non-cultivation forms are excluded from the discussion.) It is further assumed about these structures that there is a positive rate of population growth - which might be hypothesised to have risen sharply in the 20th century. In the case of the peasantries, it is assumed that there are few operational scale economies in the agricultural technology practised, which in turn is assumed to be relatively stagnant. In addition, a

sixth, different type of structure, the egalitarian, collective or cooperative, could be specified within the framework of economies which have experienced a full-scale socialist revolution, or have undergone deep structural reforms in the rural sector.

In keeping with the original idea that industrialisation-led growth strategies have been a feature common across virtually all developing economies in the recent past, the origin of the 'stimuli' may be placed in the non-agricultural sector. Two major ones need be noted. Firstly, under the impact of domestic industrialisation, or the discovery of fresh overseas markets, the rural sector experiences the stimulus of an autonomous shift in demand for its products. Of course, such an increase could also emanate from productivity and income growth arising from endogenous technological improvements affected over long periods of time, e.g., as in tokugawa Japan. Secondly, a related impulse felt is that of exogenously developed or induced improvements in the technological characteristics of agricultural production. The demand from the domestic industrial, or external export sector might be for new rural products; industrialisation might make for technological changes in the form of mechanisation, superior inputs, etc. In contrast to the early industrial revolutions, in the contemporary context such impulses might be mediated and conveyed not through spontaneous market forces, but through the agencies of the state or international organisations in the form of integrated projects, understood to include the operation of credit, extension and delivery system interventions of the state. This introduces a third type of stimulus which pertains to the pricing policies imposed on the rural sector by the state in attempting to override the signals that might have been conveyed through the operation of the 'open' market.

With respect to 'responses', the questions concern the effect that the functioning of the stimuli on any particular structure has on the level of output, the rate of its commoditisation, the distribution of income and assets, and on the socio-economic reorganisation of the initial structure. The impact on the incidence of poverty could be taken as one element in this vector of responses.

It is possible now to discuss alternative theoretical characterisations of the nature of the process of agricultural growth and agrarian change within an intersectoral framework which permits the specification of a functional relationship between it and the newly launched industrialisation process. To some extent these represent contending approaches, though in some cases, it is possible to view them as variants on a common theme, or as being complementary to one another. In the Lewis model, the structure is implicitly assumed to be highly egalitarian, in that the rural sector comprises family farms all of which display land shortage and surplus labour; this is rather like Geertz's 'shared poverty' characterisation.[29] Industrialisation merely draws away surplus labour through the stimulus of offering marginally higher wages to migrants than their average consumption level on the farm; these migrants cross into towns as-if carrying their food requirements with them. No additional demand for rural products is set up,

and hence there is no demand stimulus to respond to. Neither is there a technological stimulus, since the prior, demand stimulus is absent in the first place. Only when the rural labour supply curve begins to rise does the possibility arise of any technological change in the rural sector. There is no presumption that this inter-sectoral linkage has any effect on the internal organisation of the rural sector in terms of leading to any concentration in the ownership or control over resources. As such, growth cannot be impoverishing. It is implicitly assumed, though, that when there is a positive rate of population change, there would be an induced endogenous technological response which would maintain average per capita incomes constant; this is identical to the assumption that Geertz makes in the context of Java's sawah rice economy.

A similar characterisation of the structure may be found in Chayanov, where an open land frontier and an absence of landlessness are assumed [Chayanov,1966]. Even though the peasantry is viewed as being stratified, the form that this stratification takes is not one which leads to any polarisation, since there is no connection between the degree and nature of stratification and the process of accumulation. Indeed, accumulation, as an agent of cumulative change which leads to a permanent increase in the degree of concentration of assets and to permanent class formation is rejected. Differentiation is held to be essentially demographic in nature, reflecting the consumer/worker balances in the household, a higher ratio eliciting a greater labour response from the adults, who then take on more land to cultivate. Over the life cycle of the household, the land held tends to vary, as it does over the generations; as such, a cross-sectional profile of inequality in access to land is a mere transitory social phenomenon. Once again, there are no stimuli other than this demographic one, and any articulation with the industrial sector is absent. It is worth noting though that Chayanov attributes to this egalitarian, or demographically stratified, peasant economy a special resilience in that peasants are expected to work on their own land up to the point where the marginal product of labour equals the costs of the drudgery of labour. This behaviour makes the peasant sector able to undertake rural labour-based capital formation which would not be found economically viable within a capitalist framework. Again, this is quite compatible with a Lewisian specification. The question of how this type of peasantry would be transformed upon impact with strong external demand and technological impulses is not really dealt with. In this framework as well, growth will not produce impoverishment or internal social polarisation.[30]

In contrast, Ricardo's rural sector is dominated by profligate landlords who use tenant labour for cultivation which is characterised by strongly diminishing returns to labour. With industrialisation, the demand impulse is received by the rural sector, but the response is a parasitical one, where the rate of growth of supply does not match demand, intersectoral terms of trade shift in favour of agriculture, rents rise by squeezing profits, which then ushers in the stationary state. This depressing scenario was ideologically useful for highlighting the negative role of the landlord class, but this result was based on the assumption of a zero

technological impulse and response in the industry-agriculture linkage. The question of the breaking of the power of the landlords was essentially a political one. It is worth noting that in the second edition of Principles, Ricardo explicitly alters his position with respect to the impact of technological change on the welfare of the working class; an analogous argument for the rural sector would have implied that growth, under that sort of technological impulse, could have been impoverishing. It is assumed that the landlords fritter away the surplus product in wasteful consumption which has no impact on economic growth (a point contested by Malthus, who held the effective demand generated by such wasteful expenditure as being productive of national income).

Similar in its specification is the Kaleckian notion that the rural sector is dominated by landlord and rich peasant classes which act as an obstacle to investment, and to ensuring that agricultural technology, investment and output do respond upon receiving the stimulus of rising demand from a growing industrial sector. The political drift of the analysis against the landlord class, and in favour of agrarian reform being a prior condition for ensuring a successful output response from agriculture, is clear. While the impact of growing industrial demand, or of such agricultural growth as it induces, on rural differentiation is not discussed, and the implicit presumption is that the landlord class would get further entrenched with growth, Kalecki's analysis of the financing of (industrial) development under such agricultural conditions does generate the Ricardian effect of improving agricultural terms of trade [Kalecki, 1972]. Unlike Ricardo, Kalecki goes on to analyse and demonstrate the regressive distributional impact of such a food imbalance, and argues that part of the surplus for financing the industrial process would come through an impoverishment of workers who could not demand full wage compensation for food inflation. Ricardian and Kaleckian analyses could be combined to argue that while to achieve technical change and growth in agriculture, a prior anti-landlord agrarian reform would be necessary, the labour displacing effects of such technical change could lead to a degree of rural impoverishment; this effect would also arise if, with or without the agrarian reform and/or agricultural technical change, the supply response of agriculture was not high enough to keep pace with the rising demand from population growth and rising per capita income. The existence of antagonistic classes in the countryside is explicitly recognised, unlike the previous cases discussed, but the dynamics of internal differentiation, consequent upon the impact of external stimuli, are not.

A more complete analysis of the process of agrarian change as part of a wider process of industrialisation is provided by Lenin with respect to the Russian case. An initially stratified peasantry - the same as analysed by Chayanov - absorbs the twin stimuli of increased market demand as well as technical change. The degree of market orientation in the rural economy rises, as does investment, and triggers off the tendency towards the centralisation as well as the concentration of resources in the hands of a newly emerging class of capitalist farmers drawn from the strata of rich (and to some extent, middle) peasants. Technical changes, which include a

diversification of the rural economy partly away from crop cultivation, involve new scale economies at the technical, marketing and pecuniary levels. The ability of the richer farmers to be self-financing, as well as to withstand higher risks involved in the switch to more resource-intensive commercial production gives them a further advantage. There emerges a systematic difference in the profitability by size class of holding, which encourages the richer farmers first to lease in more land, and subsequently to buy land outright from the smaller, poorer peasants who have to take recourse to deriving their livelihood from the labour market. This process of the dynamic differentiation of the peasantry leads to a state of class polarisation with the peasantry dissolving itself, in the extreme situation, into two classes, viz., capitalist farmers and agricultural labourers. Alongside this is an increased rate of commoditisation, as a higher proportion of the growing product of agriculture is exchanged in the market; the rural market for industrial goods also widens. The process of the social differentiation of the peasantry is the obverse side of this commoditisation and market-widening process. As such, it has a strong functional relationship with the industrialisation process which initiates it in the first place. If this process is viewed, as in the original, as a purely economic process, guided by the principles of competition and profit maximisation, it is possible that under certain, for instance sluggish labour market, conditions, the poorer peasantry might prefer to hang on to their little parcels of land, and remain in the category of part-peasants, and part-proletarians, a possibility analysed by Kautsky. Should this happen, the process of the centralisation and the concentration of land, the key means of production, would also be dampened, and this would set a lower limit also to the extent of commoditisation and market creation through the differentiation process. In practice, the economic power of the rich peasantry and the emerging rural capitalists would be reinforced by their local political clout, which would enable them to catalyse the process of differentiation, and to invoke coercive interventions to extend their economic domination; this notwithstanding, Lenin's analysis of differentiation needs to be viewed as essentially driven by an economic logic. Such a process is quite compatible with the Ricardian and Kaleckian views on the potential negative impact of technological change on the working classes.

Two other points need to be noted. Firstly, the process was in its essence a historical one which could take decades to unfold, since it involved associated processes of political, legal and social change, the parameters of which did not move necessarily with the same speed as the economic ones. Secondly, Lenin's analysis of internal differentiation was supplemented by an analogous treatment of the impact of the same set of stimuli but on a landlord-tenant type of structure. Here, the transition to the two-class polarised end-result came through the expulsion of the tenantry and the conversion of the landlord into a capitalist farmer, whether directly, or indirectly. In this case, as well, the impoverishing effects of the process of dynamic agricultural growth were explicitly recognised. Others (e.g., [Bhaduri, 1973]) have discussed situations where such landlords would, for sociological, cultural or political reasons, resist the process of the technological and commercial transformation of

their estates. In some such cases, it is then assumed that the process of behavioural change would be inter-generational; in others, it is the role of the landlord that is held to be a structural barrier, and as such, change would have to await an anti-landlord political intervention whether in the form of an agrarian reform imposed from above, or a revolutionary upheaval from below. (In these situations, as in the Ricardian-Kaleckian landlord case, the prevalent institutional conditions are held to be a major obstacle to the capitalisation of the agricultural sector.)

With respect to the impoverishing effects of agricultural growth, it is conceivable that when the overall rate of growth is high enough, the labour displacing effects of technological change low enough, and the tenant expulsion and related property appropriation effects weak enough, growth would generate differentiation without pauperising the poorer peasantry. This is an empirical question, and the results of such a process in the developing countries have thus far not provided such grounds for optimism.

Shifting the scene to the contemporary developing countries attempting accelerated industrialisation under the aegis of the state, the slow pace of the commoditisation of the rural sector has in general proven to be a serious constraint to the widening of the market for industrialisation, as well as for generating the surpluses for its financing. The stimuli generated by the industrialisation process on the demand and the technological sides have been weak in the first place; secondly, they have met in the rural sector structures which have displayed a weak capacity to respond in terms of output expansion and commoditisation. (This is particularly true of African and South Asian situations, though much less so for East Asian ones.) Faced with such a constraint, the strategy of the state has been, as with the colonial state, to find substitutes for the slow or blocked differentiation process as an agent of rural commoditisation. Within alternative structural specifications, different substitutes have been resorted to.

Firstly, interventions have been in the integrated project form which ensures a high level of technological application and commoditisation. Secondly, state farms were set up or their domain greatly extended. Even when they performed at a lower level of effectiveness with respect to resource use, their much greater rate of commoditisation, controller through state procurement monopolies, made the investment worthwhile from the vantage point of the industrialising state. Thirdly, enclave type commercial estates and plantations were encouraged with the same objective. Fourthly, historically, the African labour reserves, as well as the state-legal device in Latin America of monopolising land, had the intended result of shifting the allocation of local labour, a crucial input in open-land-frontier situations, in favour of the highly commoditised estate or settler sub-sector. Fifthly, poll taxes, and the demand for land revenue in money terms had the result of shifting the resource-use pattern into the cultivation of commercial crops; once this happened, other mechanisms could be inserted for the extraction of the surplus product. Alongside this, on the whole, land reform was by-passed - especially in Latin America and South

Asia - explicitly (though not exclusively) with a view to maintaining a high rate of commoditisation.

In other structural specifications, where the peasantry was developed, and where new forms could not be easily inserted, recourse was taken to concentrating the application of technological change in selected regions, and in commercial crops. Thus, international research went last of all into developing better varieties of inferior cereals upon which the rural poor everywhere depend for their livelihood; output increases out of such research would have been eaten away, or would have had to be taxed at great political cost - it was easier not to create such a counter-productive situation in the first place. The inputs for the so-called green revolution were everywhere concentrated amongst the larger farmers, as well as carefully selected regions which usually were already well endowed and well developed. The result, once again was a higher rate of commoditisation than might otherwise have been possible. This has also meant policies of uneven regional development where the rate of marketed surplus is taken as the key variable, leading to overinvestment in such developed regions even in situations where shifting such resources into poorer regions might have had a better output, even if a weaker marketed surplus, effect. In such policies, in both socialist and capitalist developing economies, choices of instruments of agricultural growth have been fundamentally conditioned by this overwhelming need to raise the rate of commoditisation.

This analysis of the role of commoditisation needs to be linked to the potential role of agriculture in the financing of industrialisation. In a poor, primarily agricultural, country which needs to use the agricultural surplus for industrial investment, it is not enough to commoditise the agricultural output; it is also necessary to transfer the surplus. Doing this involves the use of various economic and institutional mechanisms of extraction. Two aspects of this require comment. Firstly, there could be a trade-off between enforced extraction and future output growth in agriculture, since a disincentive effect would be created. Where the incremental capital-output ratio in agriculture is low, such a trade-off can be avoided by following a policy of surplus extraction which operates on the incremental output. This was the policy followed in Taiwan [Mellor, 1973]. On the other hand, the agricultural ICOR could be so high and the returns so unpredictable that surplus extraction comes to rely on a transfer out of a stagnant, or slowly growing agricultural output; in such cases, the disincentive effects could be severe, and the policy self-defeating in the long run [Ellman,1984]. To an extent, this is what characterises several African economies. Secondly, even when surplus exists and is commoditised, it might nevertheless be impossible, politically, to transfer it on terms which involve extraction. Where the rural propertied classes are strong, as in South Asia, the state cannot use the economic or political instruments of extraction; indeed, these surplus-controlling classes have generally been the beneficiaries of substantial subsidies from the rest of the economy. In such cases, the industrial process has to follow a pattern of development which reflects the demand profile generated by the rural sector. This is likely to incorporate lower rates of accumulation, and a heavier bias in

favour of consumer goods, leading to a slower overall growth rate of the economy, even if the rate of growth of consumption might be higher. In such conditions, which could prevail in early socialist, or capitalist situations, the industrialising state could encounter a Ricardian impasse.

Though agrarian reforms have an independent political logic as well, they need also to be analysed as potential instruments facilitating both the commoditisation, as well as the surplus extraction needs of industrialisation. Indeed, in some cases, powerful institutional restructuring of the rural economy has been the critical, even indispensible first stage of an accelerated industrialisation drive. Soviet collectivisation broke the political power of the kulaks, and made possible the high rates of commoditisation, surplus transfer, and industrial accumulation. In Ethiopia, the agrarian reform has been used as a device to provide a floor to consumption levels, while simultaneous institutional interventions in the form of state farms have been used to generate commoditised output (even if inefficiently) that can be transferred expeditiously to feed the state-centred process of accumulation [Ghose, 1985; Saith, 1985b].

In one form or another, such economic and institutional interventions have been used across the developing world as substitutes for a blocked or slow process of differentiation and rural commoditisation. Even countries which have successfully tackled the problem of rural poverty through growth have employed such mechanisms. The fundamental difference between these (few) countries and the many contemporary ones which have failed in achieving this effect is perhaps that in the former, the agricultural surpluses contributed to a rapid and successful industrialisation process which could quickly become self-sustaining in the first place, and later to become the source of reverse surplus transfers back into rural development, while all the time absorbing rural labour into industrial activities. The failure of the industrial process has meant, in contrast, that several poor peasantries have had to continue to carry the burden without prospect of relief. Indeed, the activation of the debt trap has generated perhaps even greater pressures, and exacerbated the plight of the rural sector. The peasant subsector, which has generally not had the benefit of state investments which have favoured the narrow rural bases of commoditisation, has in the meantime had to cope with the effects of a steady, and in Africa an accelerating, increase in population which it has in general not been able to absorb at constant levels of productivity. The result has been a persistence, and often an accentuation, of poverty. Thus, African rural poverty in the main peasant sector can be viewed as a consequence of the failure of the strategy of according primacy to accelerated industrialisation through state-centred accumulation processes operating in economies with a low productivity agriculture and a low absorptive capacity in industry.

Within the densely populated, inegalitarian rural sectors of South Asia - the other high-density poverty region - the persistence of poverty can be ascribed to the effects of the differentiation processes that have been unleashed by the industrialisation drive. Rising food prices, reflecting the violation of the food balance, have hit the landless and food-deficit

marginal farmers; the capital intensity of the pattern of technical change has displaced labour from several critical operations to an extent that has nullified the positive effect of the rise in agricultural output; the industrial process has been too weak in its ability to absorb rural labour in the face of reasonably high rates of growth of population and labour force. In both regions, these processes have been augmented through the dramatic deterioration in the ecological balances in these economies which have rendered even the low growth rates in productivity unsustainable.

IV. INTERVENTIONS

There is sufficient evidence on the basis of past development experience to question the wisdom of strategies which continue to rely on the trickle-down effects of growth to tackle the crisis dimensions of the problem of rural poverty. This applies as much to the ITRICK or the ATRICK versions. There is now widespread recognition, even in quarters traditionally given to their defence, that the nature, rather than simply the pace, of the growth process is of critical importance. With respect to the question of alternatives, two distinct (though not mutually exclusive) approaches have emerged.

1. Piece-meal Optional Extras

The first one is eclectic in nature, and comprises a motley collection of piece-meal supplementary policy interventions to improve the development performance, or to compensate for specific failures of the prevailing strategy. A few elements of this have come to acquire the status of panaceas. The failure of even fairly high growth rates of GNP to generate adequate employment has led, in the last decade, to the identification of rural industrialisation and non-farm generation employment as a pivotal policy element for the future; East Asian successes are cited in support. Part of the popularity of this instrument derives from the fact that it does not encounter the opposition of the rural landed interests, and is not viewed as a zero-sum game as any policy of land reform would; partly it stems from an acute realisation that even high agricultural growth rates are unlikely to absorb anything more than a fraction of the increase in the rural labour force. While rural industrialisation indeed has potentially much to offer, the full realisation of its developmental role depends critically upon a variety of structural, economic and institutional factors which are not readily found in most situations. It needs to be remembered also that the best known successes with rural industrialisation have occurred in economies where the two main contiguous sectors have themselves been expanding rapidly, and where the level of infrastructural development has been high. In economies where this is not so, and where the low, and low rate of growth of, per capita income makes the market both narrow and sluggish, any such policy would have to compete with imports or, more likely, with the regular industrial sector for its demand. The experience of Bangladesh, where such policies have been pursued quite assiduously tends to show that

the rural industrial sector cannot compete or keep up in relative terms; indeed, the trend is towards a decline in the overall share of employment in most of the important rural industries. As such, it is unwarranted to expect a minor sub-sector to compensate for the failures in performance of the major sectors of the economy [Saith, 1987a].

A second piece-meal intervention takes the form of special programmes targeted explicitly on the rural poor. These take the form of small/marginal farmer productivity-raising programmes, rural public works, employment-guarantee schemes, skill and asset creation schemes in non-farm activities, etc. Thus far, the experience of the Asian economies - where mostly this device has been used in any significant way - has been discouraging. Firstly, in order to be effective, the scale of operation of such schemes needs to have some bearing with the dimensions of the problem of rural poverty. Doing this requires a major injection of resource into the rural economy, and this has thus far been possible only in rare cases. Secondly, the delivery systems for these schemes eventually have to rely on extant local bureaucratic and power structures; not surprisingly, very heavy leakages and misallocations are reported across the board. Thirdly, many employment schemes provide benefits to the target groups only in the construction phase; the duration of schemes in any given area thus might provide temporary relief, but does not create the basis for a permanent cure. With respect to the asset creation schemes, all too often, the result has been more one of the creation of a debt rather than of a productive asset; this is demonstrated, for instance, by the ubiquitous inefficiencies of the Indian milch cattle purchase schemes which have frequently lumbered the poor beneficiaries with unproductive animals. Realisation of some of these effects has led governments to place a greater emphasis, in public works and employment schemes, on the creation of such rural infrastructure which would raise the productivity of the rural sector, and therefore also raise its future income and employment generation capacity - i.e., even after the termination of the scheme. This is an appropriate orientation, and yet, paradoxically, it has a strong bias in favour of the landed classes. Irrigation system improvements, embankments, roads, culverts, bridges, etc., all either directly raise land productivity, or do so by allowing the farmers of the command area of the scheme to shift their cropping patterns into higher-value crops. While only dirt tracks have any appreciable share of direct benefits for the rural labourers - for whom the entire scheme is ostensibly developed in the first place - for the other schemes, both the construction-phase and post-completion phase benefits accrue mainly to the landed classes, who generally receive this windfall bonus without any charge whatsoever. If the poor benefit in the subsequent rounds, it is either through the marginal employment generation effect of the shift in the cropping pattern - though there can be no ready assumption that higher value crops are also more labour absorbing - or through such effects being generated through the local expenditure multiplier effects of the injection of substantial resources into the local economy. Whether this last effect materialises at all or not depends on the ability of the local economy to respond to these demands; in depressed areas where these works

are frequently concentrated, these demands could well generate subsequent-round employment and income effects elsewhere, i.e., in the already-developed parts of the economy. Thus, these schemes are at best a cheap device for rural small-scale infrastructural development financed by the very low wages paid to the workers drawn from the rural poor, whose presence provides the legitimation for the schemes in the first place. This type of expenditure also has its benevolent - from the point of view of the governing political alliances - political multiplier effects. Frequently, monies for such local infrastructural development are channelled through sub-district level bodies which represent the local elites powerful in that increasingly crucial political space between the village and the district; Bangladesh and India both provide examples of this. At a macro-level, it needs also to be noted that should the scale of these schemes be somehow raised to a level which can make an appreciable dent in the employment problem, the issue of finding matching supplies of wage goods would arise. While local expenditures might generate certain types of supply response, say to do with local services and local-resource products, such as bricks, wood-work, etc., it is unlikely that the mere injection of funds will induce an adequate agricultural supply response. As such, the benefits of those who derive nominal entitlements from these schemes will be paid to an extent by the residual poor, who will face higher food prices but with unchanged nominal incomes.

A third element has an institutional character. Arising from an increasing awareness of the inability of the official delivery systems to reach the poor, who have virtually no representation in them, there has been a general drift towards reliance on the institutional form of the non-governmental development organisation as a device for affecting this transfer of official or other resources. Bootstrap operations and self-help schemes abound and are intended to provide an appropriate institutional framework for generating a reoriented pattern of development. However, these schemes and interventions even collectively constitute a very minor change. There are also grave dangers in viewing tiny individual interventions of these kinds as providing a replicable prototype which could solve the macro-level problem. In addition, virtually all such NGDOs carefully circumvent most structural issues to do with the organisation of rural labour as a collective counterveiling force, or to do with access to land. The typical form is a small workshop or petty cooperative operating in the non-farm sector, where supply side-problems are solved through the injection of external expertise and resources, and the demand problem reduces itself to a question of marketing only. If the heavy (and often hidden) overhead and foreign resource costs were appropriately reckoned, very few such schemes would emerge as being economically viable.

2. Structural Adjustment

The second type of approach, which is macro-strategic in nature, involves a fundamental reorientation of the economy as a whole, and is exemplified by the widely enforced Structural Adjustment Programmes (SAP) of

the IMF. Moving from a universalised symptomatic analysis of the development crisis, SAP provides a uniform medicine for all ills. It is directed at the restoration of what it regards as the key balances in the economy, not the food and employment balances, but those in the government and external trade sectors of the economy. Usually SAP requires: firstly, a sharp reduction in the public sector borrowing requirements. This is achieved partly through the withdrawal of a wide range of subsidies and reduction in government expenditures on the social sectors, e.g., health, education, etc. On the side of financing, a reduction of public sector ownership of industrial assets, or denationalisations, generate budgetary resources. Secondly, accompanying this industrial withdrawal of the state is a certain degree of industrial reorientation, which involves retrenchment from sectors not thought to fit in with the perceived comparative advantage of the economy. Thirdly, there is a general shift from bureaucratic and state controlled forms of resource allocation to the use of the open market as an allocator of resources. Parallel to the reduction in state-centred economic activity is the dismantling of collective, communal, cooperative, and parastatal institutional structures, all of which are posited to act as disincentive-generating and distortionary devices. Fourthly, a wide range of price 'distortions' is corrected: heavy devaluations attempt the correction of overvalued exchange rates which are held to dampen exports; interest rates are raised so as to generate domestic savings; agricultural prices are raised; real wages are allowed to drift, often plummet, downwards. In effect, such policies attempt to encourage agriculture over the other sectors of the economy; production for exports rather than for domestic use; and savings over consumption; as such, there is one specific type of externally-oriented AGFIRST strategy implicit in SAPs.

When the same strong medicine is applied across the board, it is not surprising that the failure rate is high.[31] Devaluations have generated powerful inflationary forces, but without having any significant effects on an export sector which is frequently constrained by other, more structural, factors. Curtailment of the state sector - including the cuts in subsidies, etc. - has combined with industrial retrenchment to cut urban incomes dramatically, and the real wage in most African economies has plunged to abysmally low levels, an effect accentuated by the regressive impact of the cuts in the education, health and related sectors [UNICEF,1989:16-20]. Much hangs on the effect on agriculture. On the one hand, the domestic withdrawal of subsidies, and the devaluation of the currency generally shift the terms of trade strongly in favour of agriculture. This has a sharp income effect in favour of those rural producers with surpluses to sell, so long as they can find the markets to sell to. On the other hand, the ability of the state to finance major rural development projects, especially long-maturing infrastructural ones, declines. In any event, the weaker peasant sector which is near subsistence levels of production, has few surpluses to sell, and where further development is contingent upon prior heavy state investments, is unlikely to receive any particular boost from SAP; it is the surplus and export-oriented farming sector which stands to benefit. The result is likely to be one which accentuates inequalities within the rural sector, widens and intensifies urban poverty - though here

the existence or emergence under duress of inter-sectoral household sharing systems could act as a partially mitigating factor - and probably leaves rural poverty at best unaffected in the shorter run. In the longer run, the expectation of any positive impact on rural development is predicated upon the role of the 'corrected' prices acting as sufficient stimuli for rural capital formation and growth. Such an assumption is unrealistic; it is widely acknowledged, even if not by their proponents, that SAPs incorporate no post-'adjustment' growth impulse.

A different version of AGFIRST might require a major resource shift in favour of the underdeveloped peasant sub-sectors, say within African economies. This might entail higher rather than lower levels of state involvement, still generate substantial resource needs which would have to be met from sources other than the agricultural surplus, since in this version, a larger share of this surplus would be retained by agriculture itself. The industrial sector still undergoes a reorientation which emphasises industries which do not involve low absorptive-capacity constraints, high ICORs, high import intensities, low domestic economic linkages, and low local skill-generation effects. A consequence would be a move away from the state-centred model of accumulation resting on the premise of industrial primacy. The central thrust of the strategy would be the development of a mutually reinforcing economic linkage between a growing peasant sector and a domestic industrial sector which relies on it for its market. This would alter the rate and pattern of accumulation in the economy, and lead to a lower, but indigenously sustainable, type of growth. It would also incorporate the hitherto excluded peasant sub-sectors into the mainstream development processes. Within an African context, this 'peasantist' path derives its logic from the notion that the previously followed industrialisation-first strategy accorded primacy to industrial acceleration prematurely. In such an approach, there would be a continuing, prominent role for cooperative production forms and a participatory rural institutional environment. Viewed thus, the AGFIRST approach seeks a correction to the sequencing of the different elements of the development process.[32]

The difficulty with this approach is that it implies, indeed requires, a degree of decentralisation of the accumulation process which would be tantamount to a major shift in the balance of political control over the resources and the benefits of development; it is unclear why, and how the entrenched interests of the rural and urban classes controlling the process thus far would voluntarily give up such control. In the case of the externally-oriented SAP version of AGFIRST, international forces could align with the surplus generating farming sections to force the passage of that type of restructuring. In the case of the poor-oriented, 'peasantist' AGFIRST version, the main beneficiaries are likely to be those whose poverty is matched by their powerlessness.

NOTES

1 A similar result emerged irrespective of whether a low or a high cut-off point was used to define undernourishment. This exercise was based partly on unpublished FAO data.

2 As many as 19 observations end with the digit 5, and another 15 with the digit 0. For 58 observations, one should expect either of any two digits to form the last digit of the number no more than 11.6 times; in the sample, the pair 0 and 5 occur as many as 34 times. (A chi-square test displays significance at the 1 per cent level.) Clearly, it is not just the case that decimal places have been rounded off to the nearest integer; but that frequently numbers have been rounded off to the nearest 5 or 0.

3 The World Bank estimates are systematically heavily in excess of the ILO ones for the African group, whereas the reverse is true for the Central American countries. For the Central American cases, the differences are due partly to variations in the poverty-lines used. For the African cases, the discrepancies are astonishing (even allowing for a wide margin on account of differences in the years to which the two sources of estimates pertain); the lower ILO estimates refer to the incidence of poverty measured with respect to a basic needs, and not a food-poverty line. Of course, a partial explanation might be found in the plausible argument that the distributional and calorie count data for the African countries have conventionally understated the extent of reliance placed by rural households, and especially the poor, upon local, traditional supplements to their diet. However, in most cases, the differences are so wide as to bring into question the quality of the data as well as the methodology employed.

4 BMR stands for Basal Metabolic Rate, and corresponds to the level of energy required by the human body to survive in a state of rest, i.e., without the expenditure of energy on work.

5 The following policy options are postulated: (a) reduced population growth; (b) accelerated growth for poor countries; (c) incremental redistribution; (d) redistribution plus accelerated growth; and (e) maximum improvement involving (d) and (a). [Ahluwalia, M.S. et.al., 1979:327-329].

6 Between 1962/63 and 1975/76, the incidence of rural poverty in Thailand declined from 56.0 per cent to 31.7 per cent. This decline was evident in all the regions of the country. While population grew between 1960/62 and 1975/77 at 3.1 per cent per annum, GDP (at constant 1972 prices) grew annually at 7.7 per cent while agricultural GDP grew at 5.6 per cent. [Islam,1984:206,211].

7 In 1960, the availability of farm land per agricultural worker was 0.87 hectares; in 1970 it was 1.05 hectares; by 1975 it had risen to 1.23 hectares [Islam,1984:220].

8 [Irfan & Amjad,1984] provide a carefully argued interpretation covering the 1960s and 1970s.

9 For Pakistan, the likely positive impact of migration on the incidence of rural poverty is discussed in [Irfan & Amjad,1984:44] as well as in subsequent ARTEP studies. For a general treatment, see [Quibria,1986] and [Saith,1987b]; for the Sri Lankan case, see [Rodrigo & Jayatissa,1988]; for Bangladesh, see [Mahmud,1988].

10 Even in Kerala, it is possible that the performance measured in terms of the Sen-measure might be inferior to that in conventional headcount terms; the reason is that when remittances set up powerful local demand multiplier effects, the prices of local non-tradeables tend to rise quite dramatically. Thus, the poor could have been adversely affected through the rapid inflation in land values which have raised rentals everywhere. One might argue usually that such an effect would be restricted to the urban areas; yet, given Kerala's unusual ecological rural-urban continuum, the poor in the countryside could also have been affected negatively. In such a case, a decline in the general incidence of poverty could well be associated with an intensification in a part of the resident non-migrant population which cannot take advantage of the new opportunities opened up.

11 For recent exchanges in this ongoing debate, see [Sen,1981;1988]; [Bhalla,1988a;1988b]; [Bhalla & Glewwe,1986]; [Isenman,1987]; and [Pyatt,1987].

12 This based on data from World Development Reports of the World Bank; various issues.

13 For criticisms and discussions of different kinds of weaknesses of the [Ahluwalia,1976] version of the Kuznets's inverted-U hypothesis, see [Saith,1983] and [Nugent,1983].

14 This phenomenon, related to the tendency of the modern urban economic sectors to atrophy, has sometimes been referred to (in the African context) as the 'informalisation' of the economy.

15 The Sen Index of Poverty adjusts the incidence measured exclusively in terms of the conventional Headcount Measure to take into account also the gap between the incomes of the poor and the stipulated poverty line; as such, it is a composite index measuring how many poor persons there are, as well as how poor they are.

16 Such exercises done for Japan, South Korea and Taiwan suggest that while Japan reached the 'turning point' only at the end of the 1950s, the other two reached it just a decade later at the end of the 1960s.

[Minami,1970]. In most LDCs, it is difficult to argue even that the movement is in the direction of the turning point.

17 The observations made in relation to 'the Lewis model' need to be read with the significant qualification that in the broad sweep of Lewis's contribution, the points raised here are occasionally, but only peripherally, addressed.

18 See for instance, Maurice Dobb: "Now if there is any factor to be singled out as the fundamental limiting factor upon the pace of development, then I suggest that it is this marketable surplus of agriculture: this rather than the total product, or the productivity, of agriculture, in general" [Dobb,1967:78]; (emphasis in the original).

19 The role of the colonies in keeping Japanese exports competitive (and to an extent, its peasantry poor) has not been adequately recognized. See [Grabowski,1985].

20 It is tempting to speculate that had the present type of urban labour oversupply existed in so obvious manner in the early 1950s when Lewis was writing, this dis-articulation might well have been complete, at least till such time as urban labour surpluses had been fully absorbed.

21 That subsequent regimes should denigrate or undervalue the contributions of their predecessors is hardly surprising: Maoists paid no tribute to the first decade of Soviet-assisted heavy industrialisation as having laid the basis of the "walking on two legs policy", just as Dengists accord a similar treatment to the achievements of the Maoist collectivist period which allowed the new peasant economy to flourish on the inherited achievements of Maoist rural development.

22 For a discussion, see [Saith,1987a]; [Grabowski,1985].

23 For a fuller discussion of these aspects, especially in the context of third world socialist transitions, see [Saith,1985a].

24 These and related aspects first had attention drawn to them by [Kuznets,1959].

25 For case studies of Ethiopia, Mozambique and Nicaragua, see [Saith,1985c].

26 Of course, these conditions also generate parallel markets where open market prices prevail. This mitigates, to a limited extent, the disincentive effects of state pricing policies. The intra-rural distributional effect of such parallel markets cannot be generalised upon.

27 For an excellent review of the early decades of Indian development planning ideas and experience, see [Chakravarty,1987].

28 The Indian debate over rural poverty is too vast to be reviewed here; but see: [Ahluwalia,1978]; [Saith,1981]; papers in [Mellor & Desai,1985], and [Bardhan & Srinivasan,1988]; [NCAER,1986a;1986b]; [Ghose,1989].

29 Geertz's notions concerning 'shared poverty' have come in for strong criticisms in the Javanese context; see for instance, [White,1983].

30 For developments and criticisms of the Chayanovian analytical framework, see [Harrison,1975], [Shanin,1987], [Patnaik,1979].

31 A recent aggressive statement from the World Bank [World Bank/UNDP,1989] professes to have established that those African countries which adjusted strongly had a better growth experience than those which instituted weak adjustment programmes. However, this report is questionable on empirical and methodological grounds; for a devastating early critique of this analysis, see [ECA/UN,1989].

32 For an argumentation in favour of a 'peasant' version of AGFIRST resequencing in the Indian context, see [Chakravarty,1987].

TABLE 1

Incidence of Rural Poverty: 52 countries, 1975-80 (%)

Country	Year	%	Country	Year	%
Afghanistan	1977	36	South Korea	1978	11
Bangladesh	1977	86	Lesotho	1979	55
Benin	1979	65	Madagascar	1977	50
Bolivia	1975	85	Malawi	1977	85
Botswana	1979	55	Malaysia	1980	37.7
Burma	1978	40	Mali	1975	48
Burundi	1978	85	Mauritius	1979	12
Cameroon	1978	40	Morocco	1979	45
Chad	1978	56	Nepal	1977	61
Dominican Republic	1978	43	Nicaragua	1978	19
Ecuador	1975	65	Niger	1975	35
	1980	65	Papua New Guinea	1979	75
Egypt	1978	25	Pakistan	1979	29
El Salvador	1978	32	Panama	1978	30
Ethiopia	1976	65	Paraguay	1978	50
Fiji	1975	30	Philippines	1980	41
Gambia	1977	40	Rwanda	1975	90
Guatemala	1977	25	Sierra Leone	1979	65
Haiti	1977	78	Somalia	1978	70
Honduras	1977	54.9	Sudan	1975	85
India	1979	50.7	Swaziland	1980	50
Indonesia	1978	51	Syria	1978	60
	1980	44	Thailand	1978	34
Iraq	1978	40	Trinidad & Tobago	1977	39
Jamaica	1977	80	Tunisia	1977	15
Jordan	1979	17	Dem. Rep. of Yemen	1978	20
Kenya	1978	55	Zaire	1975	80

Source: World Bank.

TABLE 2

Incidence of Rural Poverty: Alternative Sources

Country/Source	World Bank		ILO		ECLA		Discrepancy	
	Year	%	Year	%	Year	%	Absolute	%
India	1979	51	1977/78	39			+ 12	+ 30.8
Indonesia	1978	51	1976	46			+ 5	+ 10.9
Pakistan	1979	29	1979/80	40			- 11	- 27.5
Thailand	1978	34	1975/76	31			+ 3	+ 9.7
El Salvador	1978	32			1980	55	- 23	- 41.8
Guatemala	1977	25			1980	52	- 27	- 51.9
Honduras	1979	51			1980	70	- 15	- 21.4
Nicaragua	1978	51			1980	50	- 31	- 62.0
Panama	1979	51			1980	38	- 8	- 21.1
Egypt	1978	25	1974/75	28			- 3	- 10.7
Tunisia	1977	15	1975	43*			- 28	- 65.1
Kenya	1978	55	1976	38*			+ 17	+ 44.7
Lesotho	1979	55	1978	35*			+ 20	+ 57.1
Rwanda	1975	90	1975	60*			+ 30	+ 50.0
Sierra Leone	1979	65	1977	45*			+ 20	+ 44.4
Somalia	1978	70	1977	33*			+ 37	+112.1

Sources: World Bank, [ILO, 1988:49-51], ECLA, cited in [ILO, 1988]

* Basic needs line.

TABLE 3

Incidence of Poverty: Alternative Baseline Estimates and Projections to 2000

Source	Year	Number of Countries	% of Total LDCs Population included	Absolute Poor (m)	Incidence of Poverty (%)	Share (%) in Total Absolute Poor SSA	SA	Citerion of Poverty used
World Bank (1979)*	1975	36	85	644	38.0	14.3	67.5	46th Indian percentile
	2000			475	16.3	24.8	58.9	Base Projection
	2000			221	8.1	–	–	Max Policy Options
World Bank (1986)	1980	87	92	730	34.0	20.5	64.4	90% FAO/WHO norm
	1980			340	16.0	26.5	58.8	80% FAO/WHO norm
FAO (1987a)	1979/80	89	93	475	21.8	23.2	n.a.	1.4 BMR norm
	1979/81			320	16.7	24.4	n.a.	1.2 BMR norm
	1983/85			512	21.5	27.7	n.a.	1.4 BMR norm
	1983/85			348	14.6	30.2	n.a.	1.2 BMR norm
	2000			532	15.6	36.5	n.a.	1.4 BMR norm
	2000			353	10.5	38.8	n.a.	1.3 BMR norm

SSA = Sub-Saharan Africa; SA = South Asia
* As reported in [Ahluwalia, M.S. et al., 1979].

TABLE 4

Prevalence of Energy-Deficient Diets in Eighty-Seven Developing Countries, 1980

Country group or Region	Not enough calories for an active working life (below 90 per cent of FAO/WHO requirement)		Not enough calories to prevent stunted growth and serious health risks (below 80 per cent of FAO/WHO requirement)	
	Share in Population (per cent)	Population (millions)	Share in Population (per cent)	Population (millions)
Developing Countries (87)	34	730	16	340
Low-income (30)	51	590	23	270
Middle-income (57)	14	140	7	70
Sub-Saharan Africa (37)	44	150	25	90
East Asia and Pacific (8)	14	40	7	20
South Asia (7)	50	470	21	200
Middle East and North Africa (11)	10	20	4	10
Latin American & the Caribbean (24)	13	50	6	20

a. The eighty-seven countries had 92 per cent of the population in developing countries in 1980, excluding China. See World Bank, 1986: Annex A, Table A-1 for regional classification of countries. Numbers in parentheses are the number of countries in the sample.

b. See Annex A (World Bank, 1986) for an explanation of FAO/WHO requirements. Intake at this standard is sufficient for a person to function at full capacity in all daily activities.

c. Intake at this standard is sufficient to prevent high health risks and growth retardation in children.

d. The low-income countries had a per capita income below $400 in 1983; the middle-income countries had a per capita income above $400 in 1983.

Source: Extracted from [World Bank,1986:17].

TABLE 5

Changes in Prevalence of Energy-Deficient Diets in Eighty-Seven Developing countries, 1970-1980

Country group or Region	Not enough calories for an active working life (below 90 per cent of FAO/WHO requirement)		Not enough calories to prevent stunted growth and serious health risks (below 80 per cent of FAO/WHO requirement)	
	Change in share of Population (per cent)	Percentage change in number of People	Change in share in Population	Percentage change in number of People
Developing Countries (87)	-0.06	+10	-0.02	+14
Low-income (30)	+0.04	+41	+0.03	+54
Middle-income (57)	-0.18	-43	-0.09	-44
Sub-Saharan Africa (37)	+0.01	+30	+0.04	+49
East Asia and Pacific (8)	-0.27	-57	-0.14	-57
South Asia (7)	+0.03	+38	+0.02	+47
Middle East and North Africa (11)	-0.25	-62	-0.14	-68
Latin American & the Caribbean (24)	-0.07	-15	-0.04	-21

Note: See the footnotes to Table 4.
Source: Extracted from [World Bank,1986:18].

TABLE 6
Regression Results – Rural Poverty and Some Structural Variables

No.	Dependent Variable	Constant term	$\frac{AGDP}{APOP}$	GINILD	$\frac{AGEX}{AGDP}$	$\bar{R}^2$	F	N	Form	Countries excluded*
1.	RP	41.51	-0.037	41.42		0.29	7.29	32	Linear	None
		(4.45)	(-3.77)	(2.52)						
2.	RP	41.11	-0.037	40.17	0.035	0.27	4.74	32	Linear	None
		(4.30)	(-3.71)	(2.34)	(0.32)					
3.	RP	6.48	-0.392	0.780		0.42	12.20	32	Log	None
		(12.28)	(-4.69)	(3.75)						
4.	RP	6.44	-0.392	0.773	0.013	0.40	7.88	32	Log	None
		(11.22)	(-4.69)	(3.61)	(0.22)					
5.	RP	32.60	-0.033	51.10		0.38	9.45	29	Linear	Bangladesh; Cameroon, Zaire
		(3.92)	(-3.95)	(3.60)						
6.	RP	29.23	-0.031	44.39	0.207	0.46	8.88	29	Linear	Ditto
		(3.69)	(-3.97)	(3.27)	(2.21)					
7.	RP	6.27	-0.347	0.884		0.53	16.57	29	Log	Ditto
		(14.32)	(-5.04)	(5.07)						
8.	RP	5.82	-0.332	0.840	0.110	0.59	14.60	29	Log	Ditto
		(12.92)	(-5.19)	(5.15)	(2.29)					
9.	RP	33.09	-0.035	51.32		0.34	7.66	27	Linear	Bangladesh; Cameroon, Zaire; Venezuela; Jordan
		(3.81)	(-3.26)	(3.46)						
10.	RP	29.15	-0.039	44.86	0.256	0.46	8.30	27	Linear	Ditto
		(3.62)	(-3.93)	(3.28)	(2.50)					
11.	RP	6.25	-0.343	0.890		0.51	14.50	27	Log	Ditto
		(13.05)	(-4.44)	(4.89)						
12.	RP	5.84	-0.383	0.832	0.181	0.63	15.80	27	Log	Ditto
		(13.35)	(-5.61)	(5.23)	(2.98)					

Figures in parentheses are t-ratios. For units of measurement, see Table 7.

* Bangladesh was dropped in some runs on account of the implausibly low gini coefficient value reported in the FAO data files; using alternative national survey figures would have removed Bangladesh's outlier status, but in order to maintain a consistent data set, this was not done. The other cases excluded were those where non-agricultural primary sector exports were deemed to have distorted the data and the relationship being explored.

TABLE 7

Rural Poverty and Agrarian Structure: Some Relationships at Regional Level

Region	(1) Rural Poverty Incidence (%)	(2) AGDP/APOP (%)	(3) GINILD	(4) APOP/TPOP (%)	(5) ARBLAND/APOP (hects.)	(6) AGEX/AGDP (%)	(7) RP * APOP/TPOP (%)
4 SOUTH ASIAN COUNTRIES Bangladesh; India Nepal; Pakistan	59.5 (28.6)	104 (15.6)	0.57 (18.5)	72.6 (18.2)	0.27 (44.0)	6.5 (77.2)	43.2
3 SOUTH-EAST ASIAN COUNTRIES Indonesia; Thailand Philippines	40.7 (13.1)	278 (14.5	0.53 (13.1)	57.4 (12.4)	0.38 (37.0)	26.0 (39.3)	23.4
8 SUB-SAHARAN AFRICAN COUNTRIES Cameroon; Chad; Ethiopia; Lesotho; Malawi; Niger, Zaire; Sierra Leone	60.1 (27.2)	129 (61.5)	0.39 (10.3)	79.4 (9.6)	0.70 (53.2)	27.4 (62.1)	47.7
10 LATIN AMERICAN & CARIBBEAN COUNTRIES Brazil; Colombia; Costa Rica; Honduras; Peru; El Salvador; Panama; Paraguay; Dominican Republic; Jamaica	61.6 (25.5)	564 (50.5)	0.84 (6.5)	40.7 (23.9)	0.78 (55.2)	52.6 (50.7)	25.1

RP = Rural Poverty Incidence (%); AGDP = Agricultural GDP (in 1980 US$);
APOP = Agricultural Population; GINILD = Gini coefficient for land ownership;
TPOP = Total Population; ARBLAND = Arable Land; AGEX = Gross Agricultural Exports.

Figures in parentheses are coefficients of variation (%).

Source: Col (1): World Bank; Cols (2) - (7): FAO.

TABLE 8

Comparative Indicators for Selected LDCs, 1960-1985

		Rep. of Korea	Indonesia	India	Bangladesh	Tanzania	Kenya	Ethiopia	Mexico	Brazil
GNP per capita (1985$)	1965	600	210	190	140	280	200	150	1200	710
	1985	2150	530	270	150	290	290	110	2080	1640
1975-80 Rural poverty %		11	47	51	86	65	55	65	49	73
Rural Poor/Total Population %		4	25	33	64	58	45	52	20	23
Share of Agriculture	1960	37	54	50	58	57	38	65	16	16
in GDP	1985	14	24	31	50	58	31	44	11	13
Share of Industry	1960	20	14	20	7	11	18	12	29	38
in GDP	1985	41	36	27	14	8	20	16	35	33
Share of Manufacturing	1960	14	8	14	5	5	9	6	19	32
in GDP	1985	28	14	17	8	5	13	na	na	na
Share of Agriculture	1960	66	75	74	87	89	86	88	55	52
in Labour Force	1980	36	57	70	75	86	81	80	37	31
Annual growth rates	1960-70	8.6	3.9	3.4	3.7	6.0	6.0	4.4	7.2	5.4
of GDP	1970-80	9.5	7.6	3.6	3.9	4.9	6.5	2.0	5.2	8.4
	1980-85	7.9	3.5	5.2	3.6	0.8	3.1	0.3	0.8	1.3
of Agriculture	1960-70	4.4	2.7	1.9	2.7	-	-	2.2	3.8	-
	1970-80	3.2	3.8	1.9	2.2	4.9	5.4	0.7	2.3	4.9
	1980-85	6.3	3.1	2.7	2.8	0.7	2.8	-3.4	2.3	3.0
of Industry	1960-70	17.2	5.2	5.4	8.0	-	-	7.4	9.1	-
	1970-80	15.4	11.1	4.5	9.5	1.9	10.2	1.4	6.6	9.3
	1980-85	9.6	1.0	3.4	4.7	-4.5	2.0	2.8	0.3	0.3
of Population	1960-70	2.5	2.0	2.3	2.4	2.7	3.2	2.4	3.3	2.9
	1970-80	1.7	2.3	2.1	2.6	3.4	3.4	2.0	3.1	2.2
	1980-85	1.5	2.1	2.2	2.6	3.5	4.1	2.5	2.6	2.3
of Labour Force	1960-70	3.0	1.7	1.5	2.1	2.1	2.7	2.0	2.8	2.5
	1970-80	2.8	2.1	1.7	2.4	2.3	2.8	1.8	3.3	3.9
	1980-85	2.7	2.4	2.0	2.8	2.8	3.5	1.7	3.2	2.3

TABLE 8 (Cont'd)

Comparative Indicators for Selected LDCs, 1960-1985

		Rep. of Korea	Indonesia	India	Bangladesh	Tanzania	Kenya	Ethiopia	Mexico	Brazil
of Agri. Population	1960-70	-	0.9	1.9	2.1	2.8	3.3	2.1	1.0	1.3
	1970-80	-1.4	0.6	1.9	2.0	2.8	3.6	1.7	1.1	-1.3
	1980-85	-2.3	0.2	1.4	1.9	3.0	3.7	1.8	0.7	-0.2
of Agri. Labour Force	1960-70	0.9	0.8	1.2	0.9	2.4	3.0	2.0	0.5	1.5
	1970-80	-0.5	0.6	1.4	1.2	2.3	3.2	1.4	2.4	-0.3
	1980-85	-1.1	0.8	1.5	1.9	2.3	3.0	1.1	1.2	-0.1
Incremental capital Output Ratio (ICOR)	1965-80	2.5	2.2	5.3	4.7	5.3	2.9	3.9	3.8	2.6
	1980-85	3.9	7.4	4.6	4.2	12.0	6.6	12.0	12.0	12.0
Adult Literacy	1960	71	39	28	22	10	20	-	65	61
	1977	93	62	36	26	66	50	53	81	76
Gross Domestic Investment as % of GDP	1960	11	8	17	7	14	22	12	20	22
	1980	31	22	23	17	22	20	10	28	22
	1985	30	30	25	13	13	19	10	21	16
Gross Domestic Savings as % of GDP	1960	1	8	14	8	19	17	11	18	21
	1980	23	30	20	2	8	15	5	26	20
	1985	31	32	21	3	4	16	-6	26	22
Energy consumption per capita (kgs of oil equivalent)	1965	237	91	100	na	37	114	10	622	286
	1985	1241	219	201	43	39	103	17	1290	781

Source: World Development Report (various issues).

TABLE 9

Education Enrolment Rates 1960–84

		Rep. of Korea		Indonesia		India		Bangladesh		Tanzania		Kenya		Ethiopia		Mexico		Brazil	
		1960	1984	1960	1984	1960	1984	1960	1984	1960	1984	1960	1984	1960	1984	1960	1984	1960	1984
Primary	M	99	99	86	121	80	105	66	67	33	91	64	101	11	–	82	118	97	108
School	F	89	99	58	116	40	73	26	55	18	84	30	94	3	–	77	115	93	99
	T	94	99	71	118	61	90	47	62	25	87	47	97	7	32	80	116	95	103
Secondary	M	–	94	–	45	–	44	–	26	–	4	–	22	–	14	–	56	–	–
School	F	–	88	–	34	–	23	–	11	–	–2	–	16	–	8	–	53	–	–
	T	27	91	6	39	20	34	8	19	2	3	2	19	(–)	(–)	11	55	11	35
Higher	M	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Education	F	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T	5	26	1	7	3	9	1	5	(–)	(–)	(–)	1	(–)	(–)	3	15	2	11

Source: World Development Report, various issues. M = male; F = female; T = total.

TABLE 10

ICORs: 1965-80 and 1980-85; African and Asian Country Groups

	AFRICA		ALL ASIA		SOUTH-EAST ASIA		SOUTH ASIA	
	1965-80	1980-85	1965-80	1980-85	1965-80	1980-85	1965-80	1980-85
n	30	28	14	14	7	7	7	7
$\bar{k}$	6.6	10.3	3.9	5.3	3.3	6.3	4.6	4.3
σ_k	3.7	5.4	0.9	2.2	0.7	2.6	0.6	1.0
cv%	56.1	52.4	23.1	41.5	21.2	41.3	13.0	23.3

1. Averages for k are unweighted.

2. Where negative rates of GDP growth are reported, or where low GDP growth rates yield implausibly high ICORs, a maximum value of 12 has been used.

3. The ratios are derived thus: $\bar{k} = i/g$
where i is the simple average for the percentage share of investment in GDP in the years 1965, 1976 and 1980 in the first case, and 1980 and 1985 in the second case; and g is the rate of growth of GDP per annum over the 1965-80 and the 1980-85 periods respectively.

4. Data are from various issues of World Development Report, World Bank, Washington.

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