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**THE STUDY OF
RURAL DEVELOPMENT**
Changing Perspective

D. S. Thornton

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THE STUDY OF RURAL DEVELOPMENT : CHANGING PERSPECTIVE

by

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Development Study No. 24.

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PREFATORY NOTE

Most readers of what follows will, like the author, be of urban origin, educated in wholly urban ways of thought and with an urban perspective of the world. Many however, again like the author, can claim a family history which, over two, three or four generations, stretches back to wholly rural origins. Sensitivity to this history should help to see in better balance the processes, now virtually on a global scale, which are the subject of consideration here. In at least two respects this will reduce the danger of urban bias. First, they will be able to gauge better the use of words like 'modernisation' and 'commercialisation'; what is lost as well as gained by those who experience them. Second, they will see more clearly the bareness of the bones of a structure which, for simplicity, is largely built in material terms and articulated in economic phrases. So they will reach the end (if they do reach the end) with a healthier scepticism about the generalisations made and tentative conclusions reached.

D. S. Thornton.

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¹This paper has benefitted greatly from comments by John McInerney, Martin Upton, Richard Pearce, Peter Stutley, Guy Hunter, Hugh Bunting and Hal Mettrick.

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INTRODUCTION

Over the past thirty years there has been a mushrooming in the volume of thinking about economic development. Two trends are discernible: first, a change in the variety and complexity of the dimensions considered, second, a change in the emphasis of concern.

Early models (e.g. Lewis 1954) tended to stress one objective, one process and one predominant resource - growth, industrialisation, capital. There has been proliferation in all these dimensions: preoccupation with growth has been complicated by considerations of employment generation and equitability of income distribution; obsession with industrialisation has become balanced with concern for agricultural production and service industries, the whole set in a better appreciation of international trade and resource transfers; concern with capital formation has been modified, even overshadowed, by the technology debate, and managerial and political competence are increasingly discussed. Moreover there has been increasing acknowledgement of the complexity and uniqueness of individual country circumstances and a decreasing penchant for finding the universally applicable solution. This includes the realisation that objectives formerly seen as conflicting might in fact be complementary: for instance that growth and equity are not always mutually exclusive. There is now therefore acceptance that there are probably many possible development paths, though not every country case is necessarily so unique that experience cannot be usefully transferred. But above all there is the sense that the development process is too complicated to be served by one model. Thus Papanek's title 'Economic Development Theory: The Earnest Search for a Mirage' (1977).

But the second kind of change is equally significant. In the early 1950's, economists and policy makers were generally optimistic about the material future of mankind. And although simplistic concentration on industrialisation and urbanisation fairly quickly gave way to a recognition of the merits of balanced growth (Jorgenson 1961 and 1970) it was not until the 1970's that the easy assumption that all people would eventually prosper, albeit some more than others, was being widely abandoned. Seers (1969) had raised the question of whether the commonly accepted definitions of 'development' might not be entirely wrong. By 1975 even the conservative voice of the World Bank was advocating attention to Rural Development with particular reference to the rescue of the poor who at present live chiefly in the rural areas. Since then, poverty eradication has become one major limb of the development debate as applied to the internal economic affairs of Less Developed Countries (LDC's). Another limb of the debate is concerned with closing the gap, which continues to increase, in levels of living as between the richest industrial countries (IC's) and poorest

¹As early as 1957 Myrdal had already drawn attention to the likelihood of adverse (or 'backwash') effects of national development in some regions.

countries. Here two lines of thought are dominant. In the first place, it is increasingly accepted (see Ranis (1977) and the categorisations of data used by the World Bank in the World Development Reviews since 1978) that the LDC's are subdivisible into Middle Income and Low Income countries; the former is a heterogeneous group where, although many people may be poor, substantial economic growth may be going on; the latter, also heterogeneous, contains not only poorer communities but fewer signs of amelioration of poverty and indeed frequent evidence of retrogression. Additionally, the school of thought notably represented by Frank (1965), sees this divergence as 'the development of underdevelopment'; that is to say, it is a process either consciously engineered, or the inevitable result of capitalist tendencies, towards the concentration of wealth and power, whereby the rich get richer and poor get poorer.

Consequently, two major conceptual themes have achieved prominence recently: a Basic Needs Strategy for the Third World poor (Streeten and Burki 1978), and a New International Economic Order governing inter-state relations (which received substantial endorsement in the Brandt Report, 1980). At the local level in poor regions 'Self Reliance' and 'Participation' by local people in their own salvation have become the chief prescriptions, and social scientists are currently preoccupied with how these might be encouraged. Meanwhile, at the international level the possibility and implications of the 'uncoupling' of LDC's from the international nexus, or at least from the 'North', are being explored following disappointment with repeated attempts to reduce IC dominance. Both are seen as potential ways of reducing what is regarded by many as the 'dependency'² of the poor on the rich.

While such concepts receive much attention, there seems little immediate likelihood of the reversal, through policy decision, of natural trends towards inequality. This is a time when imminent limitations on key resources are being experienced among those classes and nations who have become used to affluence. The result is a preoccupation towards self-preservation rather than generosity to others, both as between the rich and poor within LDC's and as between IC's and LDC's. The possibility must of course not be ruled out that rapidly rising scarcity of resources - like oil, tropical hardwoods, deep-sea fish, fertile land - might adversely affect the rich more than the poor. However the power of the rich to maintain their share of these resources, plus their superior potential for technological innovation, make this very unlikely in the foreseeable future. This is as true at the level of relations (say) between landlords and sharecroppers and landless labourers in Bangladesh where population growth is rapidly increasing pressure on natural resources, as it is in international relations concerning (say) competition for mineral resources.

In the light of the plethora of thought and opinion already expressed, a need for a further assessment only arises if something intuitively

¹Data were available in the 1960's which indicated these diverging trends (see Thornton (1973), Statistical Appendix).

²'Dependency' as used here, and unlike 'inequality', carries the implication of the loss of freedom of choice engendered by prior commitment, voluntary or involuntary, as when obligation and indebtedness increase insecurity and reduce flexibility.

important seems to have been left out of mainstream thinking, if this may have relevance to policy formulation, and if some new facts (though not necessarily enough) become available. To the writer a new perspective seems to be required which

- (1) gives greater emphasis to the implications of
population growth
population mobility
and technological change;
- (2) examines more closely the rural¹ sector.

Thus it is implied that a deeper understanding of events, trends and future scope for development may be derived from a closer investigation of people in rural settings.

In the cursory examination which follows, attention will be concentrated on economic aspects of living though the costs of such restriction are recognised. In order to simplify further, the procedure followed is that attention will first be focused on the rural sector of a self-contained LDC (an abstraction).² This constraint will then be dropped by considering the interaction of the whole economy within the global economy. Attention will then turn to the more detailed investigation of the rural family in the LDC as it experiences the changes already broadly observed. Finally, some consideration will be given to the needs for, and effects of, policy measures designed to modify the change process.

This, then is not only a partial approach emphasising certain facets of the development process; there is inevitably a subjective element in the discussion of what changes in trends are possible and desirable.

¹ A clear definition of 'rural' is difficult; it can be argued that there are indivisible continua, both geographically and over time, between rural and urban, and that only very arbitrary boundaries can be drawn on a combination of criteria, including concentration, location, function and other social characteristics of humans and human groups. Here, human concentrations of modest size will be treated as 'rural' provided the functions of those concerned are directly, or at one stage removed from agricultural. Thus extension workers (but not agricultural researchers), agricultural traders (but not marketing board central personnel), and branch agri-bank officials (but not central bank officials) could be regarded as 'rural'.

² The difficulty with this method of analysis is that it over-simplifies history, which has consisted of the growth and decay of a number of economies or civilisations with distinctive technology and innovations, none of which has been strictly self-contained. The current world predominantly contains many growing LDC's into which the North (a relatively lately developed 'civilisation') has intruded from their beginning, but also others, notably India and China where Northern influence has been superimposed on already sophisticated systems.

A. THE CHANGE PROCESS

I. THE LDC MODEL CASE

1. Demographic Change

In most LDC's two demographic changes are going on simultaneously (see Table 1);

- (a) population is growing rapidly in relation to the known stock of natural resources,
- (b) urban population is growing faster than rural population, in part through transfer of people from rural to urban areas.

These two trends are to some extent related. The growing tilt towards urban life and the influence of urban over rural people have been associated with a fall in death rates; in time it is likely that birth rates will also fall. It is even being forecast that population growth rates will fall to zero in LDC's as they are tending to do in IC's. The inference is that all LDC's will pass, more or less quickly, through a bulge of growth in population to a fairly stable but much higher plateau. In other words, the human 'niche', in biological terms, although capable of enlargement by human ingenuity, nevertheless has finite limits (see Boulding, 1980).

TABLE 1: POPULATION GROWTH URBAN AND RURAL

	Population (Millions)	Average Annual Population Growth %	Urban Population as % of Total	Average Annual Urban Population Growth %	Average Annual Rural Population Growth %
	Mid-1979	1970-79	1980	1970-79	1970-79
36 LIC's ²	2,260	2.1	17	3.7	1.77
India & China	1,623	1.9	17	3.2	1.64
34 Other LIC's	635	2.6	19	5.0	2.04
60 MIC's ²	985	2.4	50	3.8	1.00
Oil Exporters	325	2.7	45	4.3	1.40
Oil Importers	660	2.2	52	3.5	0.79
18 IC's	671	0.7	77	1.3	-1.30

¹Deduced.

²Low Income Countries and Middle Income Countries together make up those LDC countries of more than one million people, tabulated by the World Bank, the division being drawn on the basis of estimated Gross National Product per head of \$375. Non-market industrial economies and capital-surplus oil exporters (CSOE's) are excluded here.

BASIC SOURCE: World Bank 1981.

¹The World Bank is even venturing the scenario that this may have happened everywhere by sometime during the twenty-second century.

This levelling out, even if it happens, will therefore not come about without increasing drastically the total pressure of population on natural resources; a pressure which will further increase if levels of living also continue to rise. This is already reflected in high general prices and steep local price gradients for land, water, elements of the biomass, and fresh air in IC's; gradients in LDC's may be expected, with variations, to tend towards similar patterns. Woodfuel supply is already rapidly declining.

At some stage, before overall population growth has fallen to zero, a point should be reached where rural population growth falls to zero, though this may be long delayed in the poorest and least urbanised countries. In the meantime the substantial continued growth of rural population in LIC's, implied by Table 1, should also be noted; a trend which, as will be seen later, by itself poses major problems vis-a-vis natural resources.

Of course, the trends conceal marked differences between major Regions, related to political history, population-carrying capacity of natural resources, technological change etc. For instance, in Sub-Saharan Africa, urban growth rates were as high as 6.5% in 24 LIC's between 1970 and 1980 (World Bank 1981a).

They also conceal a highly complex pattern of human movement which may be seasonal, temporary or permanent, in single or multiple steps, and which may involve whole social groups or non-representative elements. The net effect of all these is that two broad sorts of locational adjustment are occurring, which involve migration:

- a) from rural to urban areas,
- b) from areas with low productivity per person to areas with potentially high or increasing productivity in the rural sector.

1.1: Reasons for movement

It must be a truism to say that people move because they are dissatisfied with their current (or expected) position, and hopeful that a change will be in some sense beneficial. Whether people move expecting a higher level of living or whether they move to avoid a deteriorating one will vary from place to place. Both situations currently exist.

In the case of movement towards cities, Todaro (1969) suggested that the decision may be a function of the percentage expectation of getting a job multiplied by the percentage rise in expected wage, the migrants having aspirations to improve their material level of living. This view has been criticised as simplistic in terms both of motivation and mechanism. The critics put more weight on the psychological orientation given to young people by education of urban origin, which, they say, makes them dissatisfied with rural, relative to urban, conditions. For instance, Godfrey (1973) developed this argument based on Ghanaian data, and Hay (1980) showed that in Tunisia a 20 year-old man with 10 or more years' schooling is twice as likely to migrate as one with no schooling or primary schooling only.

Todaro (1976), in a re-examination of the issues in the light of further widespread research, has this to say about the education factor:

"Although it is well known that more education increases the propensity of an individual to migrate, we are still unclear as to how much of this increased propensity can be explained solely by economic factors..... and how much is the result of the impact of education on a rural individual's 'world outlook'. In other words, does education exert a non-economic, independent effect on propensities to migrate? It may do so, for example by altering a rural individual's overall utility function so that his 'psychic' benefit/cost calculation of the private returns to migration works to reinforce his 'economic' benefit/cost calculations. Those with more education, therefore, may have an 'acquired' personality factor which causes them to respond disproportionately to non-economic as well as economic incentives to migrate."

Keyfitz (1977) gives an extra dimension to the discussion by emphasizing sociological and political considerations. He argues that 'development' consists not only in raising national income per head but also in changing from peasants to middle-class residents of cities or putting rural children in a position to change. Although income and mobility are related, mobility has some effect independent of income as such, for instance

- 1) altering the emphasis through education from tradition to a consciousness of citizenship of a modern nation;
- 2) facilitating non-monetary satisfactions derived from middle-class status,

which lead to the growth of government-created employment; this is influenced less by market demand for its 'products', more by what people want to do in the roles of managers and white collar workers, testifying to the attractiveness of upward social mobility as a source of satisfaction per se.

There are, no doubt, other rural people who, suffering a decline in their level of living feel that they have little to lose in moving, whether to another rural, or to an urban, environment. Many decisions may be a sharp event sparked off by a specific experience following an increasingly mental tension which has arisen from a conflict between an increasing fear of destitution associated with staying at home and the increasing hope of making good by moving. Increasing fear of destitution must be a major factor both in those areas where increasing pressure on land results in land deterioration beyond, for the individual, a point of no return (say in the Sahel), and also where resource control becomes increasingly skewed with the losers feeling more and more helpless (say in Bangladesh). Connell et al (1976) relying largely on an analysis of socially stratified Indian villages suggest an interesting distinction between the sons of the relatively rich who are most likely to migrate to the cities, and the poor who will seek relief from oppression more commonly by rural-rural migration.¹

These movements are having profound effects on both cities and the countryside.

¹Lipton (1980), commenting further on the same data emphasises that, 'the very poorest, who cannot afford the initial cost of movement', seldom leave.

1.2: Urban growth

Urban growth is a combination of accretion following rural migration to a point of vantage, endogenous growth of population and the absorption of neighbouring communities. With time, the first becomes relatively less important, and the rate of urban growth eventually tends to slow down. In LDC's, it is possible to distinguish two trends: first, those few relatively large countries, mostly old-established in Asia, where urban migration has spread over a number of cities and an hierarchy of smaller towns, and where the process has been longer and slower, and second, those others, notably in Africa, Latin America and South East Asia where relatively small-country migration has focused on a single metropolis, with rather insignificant growth of an hierarchy of smaller towns. (Table 2).

TABLE 2: EXAMPLES OF URBAN GROWTH PATTERNS IN ASIA, AFRICA AND LATIN AMERICA

	Total Popu- lation (M)	GNP per head (S)	Popu- lation growth per annum %	Urban Population growth per annum %	% in largest city	% in cities over 500,000
	1980	1979	1970-79	1970-80	1980	1980
India	673	190	2.1	3.3	6	39
China	977	260	1.9	3.1	6	45
Kenya	16	380	3.4	6.8	57	57
Angola	7	440	2.3	5.7	64	64
Haiti	5	260	1.7	4.9	56	56
Bolivia	6	550	2.5	4.1	44	44
Thailand	45	590	2.4	3.3	69	69
Philippines ¹	47	600	2.6	3.6	30	34

Note: The examples represent poles of what is really a much more varied global picture.

SOURCE: World Development Review, 1981.

The advantages of congregation in urban areas are, on past evidence, not in doubt. Indeed urban development in some form and to some degree may be regarded as a sine qua non for national economic development. This is implied by the broad relation between the average level of GNP per head and change in other social indicators on the one hand, and the degree of urbanisation on the other. (Table 3).

These material advantages² arise from:

- a) the increased opportunity for human inter-communication and mutual stimulation; competition and co-operation; leading to
- b) the possibility of organisation, specialisation of function and economies of scale.

¹There are now signs of transition to less metropolitan concentration here.

²There may be counterbalancing disadvantages which have important effects both in city and countryside however (see below).

TABLE 3: URBANISATION, COMPARED WITH LEVEL-OF-LIVING INDICATORS

		LIC's	MIC's	IC's
Urban Population as % of total	1960	15	37	68
	1980	17	50	77
Average GNP per head (\$)*	1979	230	1,420	9,440
Life Expectancy at Birth (years)	1979	57(51)**	61	74
Adult Literacy Rate (%)	1975	51(38)**	72	99

* It is important to bear in mind the many limitations of average GNP/head as a measure of levels of living; perhaps the most important of these is its failure to show up the degree of concentration of income among a proportion of the population. But virtually all indicators require caution in their interpretation.

** If China (64) and (66) be excluded.


SOURCE: World Development Review, 1981.

They will be enhanced to the extent that the migrants are predominantly young and relatively lacking in traditional thinking and inhibitions, higher-than-average intelligence and education, physically healthy and active, aggressively enterprising and willing to take risks, prone to innovate, and therefore likely to produce entrepreneurs, new technology and capital.

The process is not one in which every migrant immediately and totally commits himself or herself to a rural-urban switch. He or she may first make tentative visits, and take temporary work while retaining a family base in the country. Even after making what proves to be a permanent move, close though waning contact may be kept with home, return visits being made, with presents and remittances until, with time, the centre of gravity of the family changes, the rural 'home' being replaced by 'country cousins'. Nor is the rural-urban change necessarily a sudden step in terms of occupation. The practice of country skills in town settings - such as food preparation, and artisan trades - and part-time farming combined with part-time urban work, are all characteristics of the transition.

It could well be too, that not all migrants plan to stay in the city but take steps to secure retirement facilities in their home village. Their children however are likely to be less firmly attached to the village.

Important changes in the conditions of migration to any one city may occur over time, and thus the type of migrant may change. This would seem most likely where the 'push' of declining rural levels of living, due to rising population density on available land, becomes the over-riding reason for migration.

It is safe to expect a curve of urbanisation over time of the biological growth type . The tapering off will be related to increasing difficulties (costs) experienced by urban dwellers in cities of very large size, and increasing social costs arising from difficulties of installing, repairing and replacing infrastructure and running services (as well as the increasing demand for agricultural production that can be assumed). Urban

¹ Which itself may be declining in quantity, through soil erosion or sequestered by powerful individuals.

growth costs are already to be seen in long-established over-crowded cities like Lagos and Mexico City. The illusory benefits have been well analysed in human utility terms by Hirsch (1976).

1.3: Rural Translocation

Large human movements are also taking place within the countryside. Quite apart from those which may arise from urban influences (dealt with below), rural translocation reflects adjustment to take advantage of complementary benefits from more than one place, or to changes in environmental productivity.

Complementary benefits are enjoyed by those who combine (say) settled subsistence agriculture with seasonal casual labour in settlement schemes, plantations or on farms with especially heavy labour requirements at certain seasons. It is estimated for instance that about 1 M casual labourers, most of them from a rural subsistence base, satisfy the highly seasonal labour demands of large-scale irrigated and semi-mechanised rainland agricultural development in Central Sudan. Whether this seasonal labour represents merely an increment to income or is part of a process of proletarianisation (or both) depends on whether or not the casual employment is created by the incursion of labour-demanding systems into areas hitherto occupied by subsistence cultivators, and therefore at the expense of permanent livelihoods. This does seem to be the case in Sudan's semi-mechanised rainlands, and also in many similar situations in Latin and Meso-America.

Seasonal climatic change leads to the annual migration of pastoralists; longer-term climatic changes (exacerbated by human land utilisation) lead to more permanent movements notably from eroded desert fringes and mountain slopes, to more stable natural environments. Institutional complexity will almost inevitably arise from such translocation, deriving (a) from crowding and (b) early and late arrival; these will combine to cause a social stratification and inequality in resource control, and differentiation between 'locals' and 'strangers', rich and poor.

Change in environment productivity may also be associated with two sorts of rather permanent rural translocation, in which capital investment and technological innovation may be involved. First, there are those related to the rise in productivity per hectare in fertile areas, as for instance with the introduction of irrigation achieved by attracting settlers in Sub-Saharan Africa or Sri Lanka. Second, there are those related to new 'frontiers'; in Indonesia, for instance, government has for long tried to encourage rural people in fertile overcrowded Java to migrate to the Outer Islands; in Brazil, with a minimum of government assistance, migration is taking place from the north-east and south to the west, the hope of the migrants being to exchange crowded, oppressed conditions and highly uncertain climate for space, freedom and an assured living. In neither Indonesia nor Brazil has success been conspicuous; official and private expectations have often been disappointed, resulting in only semi-permanent establishment of communities and continuing trial-and-error in

¹The rural dweller in this situation is likely to lose either way in the absence of policies specifically designed to help him. Continuing reliance on subsistence may, with population increase, eventually result in environmental deterioration and then mass exodus. The entry of large entrepreneurs may however be only a transitory benefit. Commonly either the entrepreneur's market soon collapses or he substitutes more capital for labour, and the labourer's employment becomes insecure.

appropriate farming systems.¹

2. The Effect of Urban Growth on Rural Development

The effects of urban growth on the countryside increase in scale and complexity as the balance, in location of population, changes towards urban areas. Moreover, the speed of urban growth, seen within the context of overall population growth, is itself an important variable.

2.1: The residual rural population

To the extent that it is the young and ambitious that migrate, the rural areas which they leave will suffer, either seasonally, temporarily to permanently. To varying degrees agriculture will be left to the relatively old, less educated, less healthy, predominantly female,² who will be carrying a higher number of dependent very young and very old. How serious a matter for agriculture this is will depend upon the production potential of the area. In Lesotho (say) potential is low; this may in part be the result of misplaced investment of the remittances received from those away in the South African mines, in livestock, leading to overgrazing; remittances are certainly now necessary for the survival of the residual population, and it is a cause for concern that recently improved mine wages are attracting South African Africans at the expense of the Basutos. In the rather unusual institutional conditions of the fertile Sudan Gezira Scheme the 'urban effect' of Khartoum and other towns, is to attract away particularly the sons of settlers, making way for a combination of mechanisation and casual labour which, while it spreads some of the benefits of the Scheme further afield, is yielding a net product far below the area's technical potential.

It is moreover not necessarily the case that urban migration leaves more space to be shared equally by those remaining. Large or relatively powerful families who sponsor urban migrants may use the remittances received to capture more resource control at the expense of poorer neighbours³. Where outmigration is chiefly the result of rural 'push' (poverty) the residual population may have more space in which to operate. Where society is severely stratified, massive outmigration of landless labourers could force up the wage rate for those remaining. Certainly there is clear evidence of the reverse tendency, for instance in Bangladesh, as landless labourers have accumulated in the countryside in recent years and sufficiently fast urban growth has failed to materialise.

¹ "Frontiers" of this kind are not necessarily totally unoccupied. In both these cases migrants have encountered environmentally adjusted though 'primitive' hunter/gatherers and shifting cultivators. Whereas in (say) Southern India expanding settled communities have established a more intensive mode of production at the expense of 'tribals', in Brazil and Indonesia migrants have rather had to learn from those they displaced in order to survive, and have found radical improvements in productivity per acre difficult.

² Latin American studies seem to indicate that migration there has been dominated by females. In 1930-60 in Mexico, for instance, females out-numbered males by 150:100 in all age groups over 14 years and 194:100 in the 15-24 group (Silvers and Crosson, 1980). Similar trends were observed in Argentina and Colombia.

³ Observed in Kenya (Wekundah 1980).

It is possible that the agricultural sectors of whole countries are affected by the concentration of activity in new cities and non-agricultural employment. Analyses on a country basis of the inverse relation between high rates of urban growth on the one hand and food production increase and calorie consumption on the other, suggest this may be occurring. Nigeria is a country where, although the rate of urban population growth 1960-80 (at 4.7-4.9%) was not particularly high when bearing in mind its predominantly rural population, yet nevertheless, uniquely among the 90 countries recorded by the World Bank, average annual growth of production in the agricultural sector was negative both in 1960-70 (-0.4%) and in 1970-80 (-1.5%). This may be in part due to a drawing away of active elements in the rural population. Where, as over much of Nigeria, agricultural labour requirements are seasonally concentrated, absence at crucial times can have a sharp effect on production, and it may be technically difficult as well as uneconomic to counter this by labour-saving mechanisation.

2.2: Demand for agricultural products

A rising population alone may be expected to have a positive effect on demand for agricultural products. A rising overall level of living will provide a further stimulus. But transfer of population to urban areas has additional effects. First, the increased demand of the cities, even though rural population continues to increase, will put pressure on rural natural and human resources for increased resource productivity and the creation of a marketable surplus.² Second, to the extent that urban areas tend to have those with relatively high incomes, the kinds of products demanded will become distinct. Relatively high incomes are accompanied by an increase in demand for 'superior' staples, with a possible absolute decline in demand, among the highest income groups, for inferior staples: for instance, wheat, rice and sugar in place of maize and cassava products in West Africa; the relegation of the millets and ragi to the poorer strata in India. In addition the demand for other exotic foods will rise with higher incomes, notably fruit, vegetables and animal products (this last group being dependent on the supply of feed at rather prodigal conversion rates).

The question arises whether home production can be expected to cater for this changing demand. Mellor (1978) interestingly raises this issue. Using the following hypothetical table he suggests that, if account is taken of a) the falling proportion of people involved in agriculture, b) high population growth overall, c) substantial rates of growth in per caput income, and d) a persisting high income elasticity for food (particularly when animal products are converted into grain equivalent terms), then there comes a point in the economic growth process when it is unlikely that agricultural production can keep pace with home demand. He concludes

¹In part also, in cases like Nigeria, the failure of rural areas to respond to urban demand is linked with the nature of urban demand which includes exotic foodstuffs and imported feed for animal production in the peri-urban fringe.

²The increased need (if not effective demand) for a surplus will be even greater if a process of concentration of control of the land resource is going on at the same time, leading also to the growth of a landless labourer class in rural areas.

that 'The gradual separation of the forces that determine the demand for and supply of agricultural commodities is of great importance to long-term trade relations'. The implications of this will be followed up in Section A.II.1.1, and its bearing on Policy will be considered under B.II.

TABLE 4: COMPARISON OF GROWTH OF DEMAND FOR AGRICULTURAL COMMODITIES, AT DIFFERENT STAGES OF DEVELOPMENT

Level of Development	% Population in Agriculture (1)	Rate of Population Growth (2)	Rate of per Capita Income Growth (3)	Income Elasticity of Demand (4)	Total Growth in Demand (5)
Very Low Income	70	2.0	0.5	1.0	2.5
Low Income	60	3.0	1.0	0.9	3.9
Medium Income	50	3.0	3.0	0.6	4.8
High Income	35	1.5	5.0	0.5	4.0
Very High Income	20	1.0	3.0	0.1	1.3

$$(5) = (2) + ((3) \times (4))$$

SOURCE: J. W. Mellor (1966) The Economics of Agricultural Development, Cornell UP, p.78.

2.3: Expansion of Marketing

Urban growth implies, in proportion to the interaction of rural and urban sectors, the growth of marketed flows of (1) rural products to urban consumers, and (2) contrary flows of agricultural inputs, education and technology, investment and consumer goods of urban origin.

Local markets which have grown slowly, with commercial activities being differentiated from production, first between family members and then by the emergence of local traders, are increasingly overshadowed by rural:urban trading, and crop and animal products produced specifically for cash. The rise of the merchant class is almost by definition urban-based insofar as the *raison d'être* of a town is often initially as a market centre. The trading network, which may include many chain-links, is likely to have its entrepreneurial control and financial resources concentrated in urban centres.

The charge of urban bias has been made, implying that producers on the rural ends of marketing chains are at a commercial disadvantage in

- (1) having small quantities of perishable product to sell,
- (2) being susceptible to great variations in production over which they have little control,
- (3) facing less-than-completely competitive marketing conditions,
- (4) having less knowledge of consumer requirements and technological alternatives than centrally placed traders,

all of which tend to result in indebtedness and 'dependency' for the rural producers. Thus while it is only by exchange that rural people are likely to be able radically to diversify their consumption and raise their level of living, commercial (together with political) conditions may

conspire to load the dice against them. Some may, by bad judgement, bad luck and/or misplaced trust be reduced to penury by commercialisation, a process which, of course, may be exacerbated by the existence of rural social stratification. But in the analysis of mercantile activity clear distinction must be made between real costs (including risk-bearing) and monopolistic advantage. There is much discussion about this in the literature and, no doubt not a little variation in conditions from place to place, commodity to commodity, and time to time.

2.4: Political control

The cities naturally become the centres of political power. Because of this and because they grow, they themselves become increasingly the focus of concern of politicians, so that the rural areas are:

first subject to taxation, direct or indirect, which is then deployed by decision-makers located in urban areas;
second subject to political policies designed to stimulate appropriate contribution to national output; and
third are often assisted in structural change by the pressure of urban political forces (land reform, for instance, often being successfully carried through with the active support of a politically organised urban group).

In the LDC's, arguably with the exception of a few mostly radical governments, urban political power tends to increase with urbanisation. This tends at least in the first instance to be exercised in favour of urban interests, though concern for the adequacy of agriculture's performance grows with increasing national indebtedness. Thus urban bias may become far more complex than that deriving merely from the superior trading power of urban-based merchants (see Lipton 1977).

2.5: Intervention of urban administrators, entrepreneurs and managers

Expansion of economic activity from an indigenous rural base is a slow process, requiring acquisition of new skills, attitudes, objectives, and institutions by the rural people themselves. In practice the pace of rural development in LDC's now largely depends on the extent of intervention by 'urban' people; that is by people strongly influenced by urban residence, education and values.

Urban administrators are necessary (or have made themselves so) in the development of rural infrastructure, including communications, transport, health, education etc. and have sought to influence productive activity through services such as input and credit provision, storage and processing, and extension 'down' to the village level. They have often sought to encourage co-operation among rural people, designed specifically to strengthen their countervailing power. Encouragement may extend to the imposition of new institutions and organisation, but even where such policies have been vigorously pursued the bulk of the rural people often remain unorganised, except on informal traditional lines.

Urban entrepreneurs become increasingly active in step with urban growth; activity may extend down to agricultural production itself, especially where environmental conditions lend themselves to the initiation of activities based on technology of urban origin. The result may be the utilisation of natural resources hitherto untapped or the taking-over of resource control from indigenous rural people.

The urban areas also produce a variety of managers to control the developmental interest in the countryside of both public and private decision-makers. They are to be found managing settlement schemes and large estates or plantations (i.e. production activities) or organisations designed to provide inputs and services to, or extract products from, rural areas (i.e. trading, credit, processing activities).

The extent to which these urban operators seek either to stimulate rural people to change, or to incorporate them in urban-directed ventures (with or without a measure of autonomy), or to supplant them altogether, will determine the extent to which a dualistic rural sector is created. Interlinked factors which are likely to enhance dualism include:

- (1) racial, allied with strong social, differentiation as between rural and rural people,
- (2) a highly selective and sophisticated educational system which produces a small highly trained élite with a strong sense of personal ambition and national identity,
- (3) a very rapid development of a single dominant urban centre, especially in the presence of a sparse rural population,
- (4) strong influences often leading to (1) to (3) above, and later sustaining them, from outside the IDC.

Depending on the rate of rise of the urban élite and its philosophy, so urban influence may spread, in time, to cover the whole rural sector incorporating its people in a more, or less, uniform way.² IDC's, depending on the impact of many internal and external factors, are at different stages of this process. While some countries near the rich end of the World Bank list of 96 LIC's and MIC's can claim to have achieved a high degree of integration of their rural people (in either planned or 'market' economy - like Yugoslavia or Taiwan), in others the rural areas are still in the course of being 'digested', and big socio-economic-cum-political discontinuities are apparent (as in Israel, South Africa, Brazil). At the other end of the GNP/head scale, the process of change influenced by urban people has hardly begun or has achieved little success (e.g. in Bhutan, Nepal, Bangladesh).

How far this natural process of the 'urbanisation' of agriculture by elitist intervention is desirable and modifiable will be discussed further in Section B.

¹ Agricultural dualism being deemed to exist where decision making about production is carried on side-by-side by entrepreneurs of sharply different type, e.g. white and black in Zimbabwe; urban and rural in the Sudanese rainlands; expatriates, 'urban' managers and peasants in Malaysian rubber estates, settlement schemes and small-holdings.

² It is true that strong cultural resistance has been evident in some peasant communities like Southern Europe, only to be finally eroded by the latest urban wave - tourism.

3. Technological¹ Change

3.1: Technological and demographic changes

Technological change is the third dimension (taken together with population growth and population mobility) identified in this paper and considered as a major factor in forming a view of rural change and development. More precisely, and parallel to a treatment of population it might have been broken down into growth and mobility.

As economic development takes place the stock of knowledge and skill must grow though its precise measurement is much more difficult than population. Stages can be discerned:

- a) In a scattered subsistence society growth will be slow depending on the fruits of trial and error.
- b) As population density grows the fund of technology will grow first because intercommunication of experience will become more frequent through closer human contact and second because the level of sophistication of resource manipulation and institutional and organisational arrangements must grow if progress is to be made or retrogression prevented. It is not clear how far knowledge precedes practice (as Boserup (1966) argues may happen) and how far the challenge of new problems stimulates inquiry and innovation.
- c) Urbanisation is a degree of concentration of selected population which is particularly conducive to technological change. Not only does the pace of change rise but the degree of sophistication increases rapidly. This is due to the specialisation of a proportion of the population in teaching and in research. A characteristic of cities when compared with rural areas, then, is a generally high level of popular technology, literacy and ease of intercommunication.

Thus, demographic change in the form of urban growth (Section 1.2) and to a lesser extent rural translocation where population density increases and bears harder upon natural resources (Section 1.3), can be expected to be accompanied by stimulus to technological growth.

3.2: Technological change, urban growth and rural development

The rate of technological change can be expected to be greater in cities than the countryside, and, at least up to a finite limit, greater the more rapid and continued the urban growth. A divergence in the nature as well as level of technology between town and country can be expected. In a variety of ways technology of urban origin will begin to influence the country just as classes of merchants, administrators, entrepreneurs and managers extend their power over the countryside. Depending partly on atomised market forces and partly on public policy formulation (of urban origin) so professional teachers purveying either general education or special knowledge (extensionists, health experts, engineers etc.) will bring new knowledge of a distinct kind, much of it deriving from deductive as

¹Unlike some others (e.g. McInerney 1978) 'technology' here is restricted to mean 'the total knowledge and skills available to any human society' (CED) - in short, 'know-how'.

well as inductive reasoning, to rural areas. Technology spread may serve to strengthen the distinction between indigenous growth and urban influence, exaggerating and rigidifying the gap in social status between rural and urban actors.

Because urban people quickly develop power to 'pressure' rural people and because urban technology may have been developed without sensitivity to the characteristics of rural areas, the technology purveyed by urban teachers may be 'inappropriate' in the sense that it either does not solve problems and serve needs as perceived by rural people or is couched in a language rural people do not understand.

The result is the introduction of rural discontinuities - between the 'uneducated' and those who go to school, between those depending for decision-making and indigenous knowledge and those receiving it from outside (sometimes free, most commonly at some cost, encapsulated in capital goods, tied to credit or at least involving a self-denying effort on the part of the recipient).

3.3: Technological change - its growth and mobility

Technology relevant to rural development at least to some extent requires those who create it to be in contact with land and to know something of the conditions in which it will be used. Thus research stations tend to be located in the countryside, inquiries are made of rural people, and so on. Nevertheless, a bias which militates against its universal applicability is virtually inevitable. The technology generated may not be universally demanded, because it is not universally appropriate, because associated resources are not available, or because market demand for the products of new technology may be weak.

Thus technology from 'urban' sources may grow rapidly, and its spread (or at least the knowledge of its existence if not full comprehension) may also be very fast, but its incorporation in rural activity may be very uneven over space in general, locally as between socio-economic strata, and even between individuals very similar in all ways except in terms of their personal allegiances and relations (see James 1981).

4. Locational Differentiation in Rural Areas

In addition to the differentiation arising from education and the political and economic power of people of urban as opposed to rural origin, a locational differentiation within rural areas also exists. The surface of any LDC is locationally varied in two main senses:

- a) its human carrying capacity at any given level of technology (the 'land capability' effect).
- b) its proximity to a growing urban centre (the 'spatial' effect).

The change processes traced above will have differing impact on rural people according to whether they are located on a base of natural resources of high or low capability, and according to whether they are close to or distant from a growing urban centre.

4.1: The land capability effect

One would expect that, at low levels of technology, areas of high land capability would eventually give rise to a rather dense population and a capacity rather easily to create a surplus on which an urban centre could grow. This has been the experience in the past in alluvial valleys and similar areas of very fertile land, though the siting of urban centres has not always been central, often being influenced by interzonal trading opportunities or political considerations (such as local and domain defence). In many LDC's of recent origin, urban centres have developed from sea ports, or close to them.

One would also expect areas of high land capability to provide the best basis for, and to react best to, reinvestment of surpluses with new technology associated. This is apparent when comparing extremes of barren and fertile land, say, in the Middle East or hills and plains of S. E. Asia.

However, this is only one principle, albeit the most important, which has given rise to the present distribution of land productivity. The potentially high carrying capacity of Japanese volcanic soils and American mid-west loessic soils for instance provide strong contrasts in historical development. Hayami and Ruttan (1971) in their theory of induced technological change have shown how conditions in Japan, once the repressive brake of feudalism was removed in the 1880's, were conducive to the rapid generation of land-augmenting technology; Central North America on the other hand has been characterised, after the long persistence of a primitive Indian technology, by the rapid growth of productivity associated with labour-augmenting technology due to the rather sparse population of the European colonisation which was quickly overtaken by urbanisation and rural-urban migration. In this comparison, natural carrying capacity as a determining factor appears to have been rather unimportant, and only recently to have been corrected by technological change. People with primitive technology in North America seem to have been incapable of developing potentially fertile plains, perhaps due to difficulties posed by wide seasonal climatic fluctuation and local difficulties in obtaining drinking water, whereas by the nineteenth century their supplanters quickly exploited additional advantages of lower energy costs derived from oil, having imported machine technology from elsewhere. Japan on the other hand experienced the long process of growth to high productivity per acre once a major institutional constraint was broken.

Epstein (1962) has suggested in a socio-economic comparison of two contrasted (wet and dry) villages in Southern India that something like Toynbee's theory of challenge and response may seem to operate - in this case the fertile irrigated village producing a densely populated, stratified inward-looking community, the less fertile dry village giving rise to an outward-looking community prone to commercial innovation. (It might be argued that similar characteristics on a much larger scale have been shown in the contrasts between arable cultivators and pastoralists throughout history).

In neither of these accounts is there a simple direct relation between land capability and the propensity to produce dense population followed by urban growth. In addition to geographical considerations, major historical events may, of course, crucially affect agricultural development. Thus:

- 1) the date of Chinese unity and isolation (1949) and India/Pakistan partition and subsequent international participation (1947) were crucial to the choice of technology, institutions and organisation of two of the world's most fertile areas, with very different results;
- 2) the development of fertile Bangladesh has probably been retarded by the separation, by partition, of hinterland from main urban centre (Calcutta);
- 3) even the rapid agricultural development of the USA mentioned above owed much to the natural/political events in Europe, notably the Irish potato famine in 1845.

Nevertheless, in considering current experience and future trends in LDC urbanisation it would be unwise to underestimate land capability either as a facilitator of urban growth or as the determinant of selective development policies by urban decision-makers. Where resources are limited overall, greater marginal returns to capital (and translocated incremental manpower) are likely to be gained most quickly, other things being equal, on the best land. To the extent then, that urban decision-making becomes involved, the disparities in value product per acre between 'good' and 'bad' land will tend to be increased more quickly than would otherwise be the case - a process shown during the 'Green Revolution' period (since 1968) in Southern Asia.

4.2: The spatial effect

Starting with a static analysis we can expect an urban centre to have a clear market effect on a uniform plane.² The effect will be radial in distribution, distorted by the position of main transport routes to the centre. Three radial zones will be distinguishable:

- a) there will be a peri-urban zone characterised by high quality intensive production of goods demanded by high income groups, the entrepreneurs of which will be urban in origin and probably maintaining non-agricultural sources of income - civil servants, academics, etc. Milk and poultry products are most common here, using sophisticated technology, exotic livestock and heavy capital investment in environmental control. Peri-urban rings have been described for Accra and Lagos (Lawson, 1977), and for Tehran (Homayounfar, 1981). The larger and more financially elevated the elite the greater the likelihood of this development;³
- b) more or less sharply separated from a) there will be a wide farming zone across which transport costs will rise with distance. This will affect the on-farm price of both inputs of urban origin and products for urban consumption. The result will be a tendency for the intensity of land use to fall, with a succession of cash products declining in perishability and increasing in value per unit of bulk; the surpluses produced by rural people will tend to decline as a proportion of their total production (other things being equal);

¹ The argument underpinning the Indian IADP, and spelt out by Mosher (1969).

² A theme stemming from the thinking of von Thunen and much discussed by economic geographers (e.g. Chisholm, 1962).

³ The contrast between Tehran with its highly sophisticated milk supply, and Bombay, which is supplied by co-operatives of small producers in Gujarat is interesting, reflecting sharp differences in the bases of economic growth, rates of urban growth, government policies etc.

- c) separated from b) by a discontinuity (see Haswell, 1973), there will be a sub-marginal area beyond the city hinterland where trade is uneconomic (though where knowledge of unavailable opportunities may spread).

It is arguable whether a fourth zone, currently unoccupied but ultimately available for settlement should be added. Such remote areas as Western Amazonia, the outer Indonesian islands and tracts of Central Africa might be included here. But most are already lightly populated with indigenous people whose interests are not negligible though often in practice largely ignored. They commonly depend chiefly on hunting and gathering.

On such a static pattern it now remains to consider the dynamics of change over time. As the urban centre grows its influence will increase; rising demand will tend to induce improved transport and trading and the outward migration of the radial rings. But this process will be complicated by

- 1) rising land prices which will be greatest in close proximity to the city, inducing further intensification of land use, using urban inputs,
- 2) rising rural wages close to the city which may attract rural workers from elsewhere inducing rural-rural migration from more remote areas,
- 3) the combination of urban and rural activities in single individuals or households and the emergence of substantial numbers of part-time farmers.

At this point the simplistic nature of the single-city model and the assumption of a uniform plane become hopelessly constricting. A high proportion of the tropics is not a uniform plane. Irregularities result in opportunities for local exchange, route concentration and other reasons for urban foci. Patterns differ between Regions as implied in Table 2. A fully developed hierarchy of towns has had time to develop in the slower growing economies such as India and China, as hypothesised by Christaller and others for Europe and confirmed by Skinner (1964) in an analysis of pre-revolution market areas in China. Elsewhere such a pattern has not had time to develop, particularly in much of Africa, though a national framework has been in place to influence the location of administrative and trading centres in recent years.

Over the last 20 years, the growth of rural population, and, at least in favoured areas, of agricultural technology, have reinforced the needs for agriculture-related services and activities in the countryside. At the same time, differentiation in wealth and education has provided the basis for the growth of small-scale non-farm rural entrepreneurship, artisans, clerks, etc. These have together provided the basis for the growth of rural nuclei of non-agricultural activity. The process has been stimulated by improvement in communications and transport particularly where

¹Part-time farming in the urban fringe may arise from either urban dwellers taking up farming or rural dwellers taking up urban occupations. As studies currently going on in Cyprus show (Pearce, 1981), part-time farming patterns and processes may be highly complex over a very broad hinterland and closely related to the complexities of migration.

- i) governments have given these high priority for development funds, and
- ii) urban (sometime multinational) companies have established dispersed installations related either to agricultural product processing or pools of rural labour.

Hackenberg (1980) shows how this process ('diffuse urbanisation') has been occurring in the Philippines and to a lesser extent in other countries in S. E. Asia and emphasises the importance of small businesses as well as multi-source incomes for rural households. Anderson and Luserson (1980) show that in all tropical regions, except Latin America, the rural work force expanded faster than the agricultural labour force between 1950 and 1970. Small town growth was everywhere important and in Latin America the rate was (suprisingly) even higher than that of large metropolitan areas.

The effects of this growth on agriculture are reflected in:

- 1) the growth of farm-associated activities, and in many cases transfer from farms of processing of agricultural products,
- 2) the transfer or provision de novo of services to farms,
- 3) the emergence of local markets for consumer products from nearby farms.

In some countries, such as Taiwan, which have followed a conscious policy of dispersing manufacturing in rural areas, substantial supplementation of farm family income has frequently been the result, much of the factory labour being supplied by country girls. Whether the fruits of the associated capital investment are enjoyed by country people, and with what degree of equitability, will of course depend on institutional arrangements, as well as the nature and stability of the industries concerned. Full integration of capital, technology and local population, as in the Chinese commune, would appear to have superior prospects for income sharing and stability¹ than (say) the establishment of industrial component factories, as in Mauritius and S. E. Asia, by outsiders.

5. Summary of the LDC Model Case

This section has been concerned to establish the broad lines of change occasioned by (1) population increase (2) human mobility, and (3) technological change. The combination of these tendencies produces in LDC's:

¹Hackenberg also incidentally argues that the so-called 'informal sector' of many rapidly growing cities, frequently housed in peripheral shanty towns, is not, as formerly thought, necessarily a transition area to the full urbanisation of migrants; it is a permanent form of urban organisation containing its own career structures where the incomes of those successful may exceed those of wage earners in central city areas. In short, the urban/rural distinction is, at least in some regions, becoming blurred on both sides of the boundary.

²While most writers see this process as beneficial in terms of economic development, there are some who express dissent. For instance, Southall (1978) observes that 'most small towns appear as the lowest rungs of systems for the oppression and exploitation of rural peoples'.

³Evidence however about equality of income within and between Chinese communes is conflicting, and there have been recent reports of recurrence of severe regional fluctuations in food supplies.

- i) a rapid concentration of people in metropolitan cities, especially where overall population growth rates are high but rural densities are low,
- ii) a concentration of economic and political power, and of innovativeness, in major urban centres,
- iii) a growing, but demographically unbalanced, rural population,
- iv) difficulties for rural people in responding to the rapidly increasing and changing demand for agricultural products by urban consumers,
- v) outflow of influence from urban areas, the objectives of urban decision-makers often being to extend influence over rural resources and thus the more speedily to improve or even transform the character of rural people,
- vi) increasing rural incomes where urban demand has been effectively transmitted, with, in turn, increase in rural demand for urban investment and consumer goods and services,
- vii) variation in impact of these induced and imposed changes, chiefly depending on local natural resource productivity and accessibility to urban centres, but much modified, from region to region, according to differing historical time scales and political events often of international magnitude,
- viii) a natural or planned tendency, in recent years, towards 'diffuse urbanisation' in some regions.

A.II THE LDC AS A UNIT IN A LARGER ECONOMIC MATRIX

1. Linkages with IC's

The foregoing discussion of LDC's without reference to outside influence is, with a few exceptions, artificial. Virtually all are linked into the international trade and monetary system (or parts of it). Trade links stretch back to prehistoric times, but the most important period is that characterised by the imperialistic behaviour of European powers, Japan and USA, which grew from the seventeenth century and, many would argue, still to some extent continues. Indeed many LDC's have achieved separate identities only since World War II, having hitherto been part of larger politico-economic structures. For most, problems still persist:

many are still suffering identity crises, their boundaries having been arbitrarily drawn under colonial rule;

many still do not have the political and economic independence they would like;

most are subject to great and sudden fluctuations in trade and international political forces, which are liable to result in the internal destabilisation of what are often frail economies.

Regional differences are recognisable though the Regions encompass country-specific histories. Thus:

- a) the Middle East Region from Morocco to Afghanistan exhibits the effects of prehistoric civilisation, of the long ties with Europe in historical times increasingly dominant over the last 300 years; latterly the region has become internally differentiated by the presence or absence of oil which has drastically altered domestic economies as well as local and international economic and political relations;
- b) Southern Asia and China comprise old civilisations of considerable stability, but exploited and modified by imperialism; they have only recently become differentiated internally by strongly contrasted political paths; relations with the 'North' have diverged but now seem to be converging again;
- c) Sub-Saharan Africa has been subjected to many types of European intrusion into a hitherto largely primitive culture; this has ranged from continuing white settlement and domination in South Africa,² through white settlement now absorbed in a multiracial state (Zimbabwe), white settlement now dismantled but with residual effects to varying degrees (Kenya, ex-Portuguese Africa), to exploitation through trade chiefly for primary product export, with more or less continuing political and economic influence;
- d) South East Asia has had a history which is a mixture of b) and c) - ancient civilisations, more recent intrusive settlement (by the Chinese), colonial exploitation and continuing strong ties with the

¹That is, by comparison with Regions a) and b) though the political organisation and cultural flowering of West and East African kingdoms and the ancient civilisation of Ethiopia have had marked influence on economic history.

²Normally omitted from data related to Sub-Saharan Africa.

- 'North' through recent years, during which, at least for some people in some countries (Malaysia, Taiwan, Philippines, Thailand, Hong Kong, Singapore) prosperity has grown faster than in either regions b) or c);
- e) Meso- and Latin America have been characterised also by ancient civilisations; but in contrast to regions a) and b) these were more comprehensively overwhelmed by intrusion; particularly over the last 400 years. Long colonisation and exploitation have included permanent settlement by Europeans in the South, feudalistic subjugation of indigenous peoples, and massive importation of African and Indian labour. Varying degrees of ethnic miscegenation and social stratification have been the result; latterly, the region has experienced massive and growing economic domination, particularly by the USA.

1.1: Trade

(a) Exports (Table 5A)

The majority of LDC exports are still primary products - 74% in the case of LIC's and 64% in the case of MIC's in 1979. Fuels, minerals and metals increased in importance relative to primary products of mainly rural origin between 1960 and 1979, though this trend was concentrated in a relatively small number of LDC's; the vast majority of LDC's are chiefly concerned with agricultural, fishery and forestry products.

LDC exports have been increasing over time at a decreasing rate; in the LIC's as a group there was actually a net decline in the 1970's. Their destination is still chiefly the industrialised countries.

(b) Imports (Table 5B)

This is not the place for a lengthy historical review of the pattern of imports but it is important to note that medicines and medical expertise were fairly early arrivals; and that after initial setbacks arising from the exposure of local people to imported diseases to which they were not immune, the impact of medicine, and related innovations acted to reduce the death rate (and probably raise the birth rate).

The notable characteristics of imports during the 1960's and 1970's are:

- i) the substantial increase in the % share spent on fuels,
- ii) the high shares taken by food imports,
- iii) the fall in the growth rates of imports as a whole, but
- iv) the increasing importance of the trade deficit, particularly in the LIC's.

As to agricultural imports during the 1970's, FAO's Commodity Review volume index (1969-71 = 100) show values of 183 for 1978 for developing countries, as compared with 125 for developed countries. The export indices for 1978 were 114 and 155 respectively, indicating the major relative deterioration of agricultural trade in the developing countries during this period.

¹ Though where this occurred it may have been partially the result of induced changes in social customs and values.

TABLE 5

A: EXPORTS

B: IMPORTS

	% Share of Primary Products Fuels, Minerals, Other Primary Metals Goods ¹				% Growth Rate All Exports		% to IC's	% Share of Primary Components Fuels Food				% Growth Rate All Imports		Exports - Imports as % of GDP	
	(w) ²		(w)		(m) ²		(w)	(w)		(w)		(m)		(w)	
	1960	1978	1960	1978	1960-70	1970-79	1979	1960	1978	1960	1978	1960-70	1970-79	1960	1979
36 LIC's	13	32	69	38	5.0	-1.0	61	6	11	22	17	5.2	3.3	-2	-3
China & India	..	12	..	35	52	..	10	..	17	-1	-2
Other LIC's	15	49	79	40	5.3	-1.1	69	6	12	22	18	5.4	4.2	-2	-3
60 MIC's	27	35	60	29	5.4	4.3	67	9	17	15	12	6.6	5.0	-2	-1
Oil Exporters	46	78	50	14	4.5	1.7	73	7	6	18	16	3.6	11.1	2	-1
Oil Importers	16	11	67	37	6.3	4.4	64	10	19	14	11	7.7	3.7	-2	-3
18 IC's	11	8	23	15	8.4	5.9	69	11	19	22	13	8.4	5.9	1	-1

¹Other primary goods are largely derived from the agricultural sector

²(w) = weighted; (m) = median country values

SOURCE: World Development Review 1981.

It is interesting to speculate how these imports reflect the combined effects of increasing urban demand in LDC's and the inability of their agricultural sectors to satisfy it. Satisfactory data are lacking for LDC's as a whole. Brief reference to the problem as experienced in Sub-Saharan Africa, where the situation is probably most critical, is suggestive. The World Bank (1981a) has shown that

- (1) for 39 countries median increases in imports have been greater than for exports, the latter being negative in 1970-79 (Table 6);
- (2) only ten of the 39 countries showed an improvement in export/import balance during 1970/79, and even in most of these, imports fell at a higher rate than exports, probably indicating declining economic activity;
- (3) agricultural exports were no greater in 1979 than in 1960; concentration on relatively few exports per country had increased; and export fluctuations were in general high and particularly so in some countries (Niger, Mauritania, Angola, Congo, Nigeria, Gabon - all mineral and fuel exporters); a combination of factors making for increasingly difficult economic management;
- (4) food imports increased faster than total imports, cereal imports increasing at 9% per year from the early 60's, from 1.2 M tons 1961/63 to 5 M tons in 1977/79 (that is, 4.3 M tons net of cereal exports); to which must be added 25% more in food aid;
- (5) wheat and rice constituted 82% of gross cereal imports, and wheat constituted the bulk of the food aid;
- (6) at the same time there was a fall in home food production increase during the 1970's below population growth and even below rural population growth, and this in spite of large flows of international aid for agricultural projects after 1973.

The World Bank links this record with first the urbanisation process, which is itself related to the predominance of exotic food imports (including wheat and rice which are indigenous to few countries in Sub-Saharan Africa); and second to mistaken policies, which exhibit urban bias, namely in particular the maintenance of high exchange rates which favour importation and, until very recent years, neglect of agricultural development. Nigeria's performance gives a dramatic example (Table 7).

Similar signs of increasing imports on a more limited range of commodities (but notably wheat) are evident in Latin America and S. E. Asia as well as the chronically deficient area of the Middle East. A degree of success in overall self-sufficiency has been achieved in Southern Asia, especially in India; meanwhile China having apparently achieved self-sufficiency in the mid 1970's seems currently to be slipping into significant food deficit.

1.2: Resource flows

- In LDC's these consist of
- a) outflows of labour and
 - b) inflows of capital, entrepreneurship and expertise.

¹ Defined as the annual percentage deviation from trend.

² Though internal maldistribution remains a gigantic problem.

TABLE 6: TRENDS IN EXPORTS AND IMPORTS, SUB-SAHARAN AFRICA

	% Growth Rate	
	1960-70	1970-79
EXPORTS	5.9	-0.8
IMPORTS	6.0	3.3

TABLE 7: FOOD IMPORTS : NIGERIA AND INDIA

		NIGERIA	INDIA
Wheat 000 MT	1960	61	4,339
	1970	267	3,590
	1979	1,055	316
Sugar 000 MT	1960	67	-
	1970	85	-
	1979	493	
Rice 000 MT	1960	2	698
	1970	2	582
	1979	245	102
Maize 000 MT	1960	-	94
	1970	8	5
	1979	111	10
Milk Products M \$	1960	5.4	5.9
	1970	19.1	9.0
	1979	165.0	36.5

SOURCE: World Commodity Review, FAO, 1979-80.

Population 1978 (M)	80.6	643.9
Av. GNP per head 1978 (\$)	560	180
Av. daily calorie supply per cap	1,951	2,021
Calorie supply as % of requirement	83	91

SOURCE: World Development Review, 1980.

- a) Labour outflows, predominantly but not exclusively unskilled, to IC's and Capital Surplus Oil Exporters (CSOE's), show distinct patterns: for instance, from Turkey and the Eastern Mediterranean to W. Germany particularly in 1960-75; from ex-French colonies like Mauritania to France; from ex-British colonies to permanent settlement in the UK; from Mexico and the Caribbean to the USA, and from mostly Muslim societies of the Middle East and South and South East Asia to the CSOE's.

The effects of these movements have both private and social benefits and costs. At the individual and family level short-term migration may be beneficial to income but disrupting to family life; long-term migration - as for instance the movement of Indian doctors to the United Kingdom - represents a major change in economic status. From the viewpoint of LDC society, the costs may outweigh the gains; this is certainly true

when migration of highly skilled personnel is long-term or permanent, as (say) with skilled personnel from Bangladesh or teachers from Sudan to the Gulf; the countries of origin are not only denied the services of scarce specialists but have also had to carry the costs of their education and the disruption to efficient organisation caused by their demise.

- b) Capital inflows (Table 8) are divisible into privately controlled funds seeking profitable employment, publicly sponsored subventions passed through multilateral or bilateral channels, and charity funds.

Private funds have continued to increase, being focused (predictably) on those countries and those projects likely to be most rewarding (i.e. the MIC's and for the most part non-agricultural).

Public funds have, in real terms, approximately doubled over the last twenty years. Since 1973 there has been a marked shift in declared intentions (1) to increase the grant element, (2) to increase the proportion going to the poorest countries, and (3) to increase the proportion allocated to rural investment, but all of these trends have been constrained either by the interests of the donors or the practical difficulties of funding suitable projects measuring up to donors' economic criteria. Latterly the resolve of donor countries appears to have been weakening.

Charity funds are a relatively small sum but by comparison with the others they are (a) strongly oriented to the poor in both country and town and (b) injected in ways that do not result in the major beneficiaries being foreign contractors, manufacturers and consultants, or LDC urban bureaucrats and businessmen.

Entrepreneurs and expertise must be accounted as important as capital in the inflow category. Their effects are not only on the scale and technology of development represented by the capital with which they are associated. In addition,

- i) they work almost exclusively through the centre and in doing so set the life-style and living standards of the urban élite,
- ii) they provide, through training and sponsorship, the opportunity for the élite, whether businessmen, bureaucrats or academics to travel abroad,
- iii) they influence political decisions and power,
- iv) they reinforce the psychological divorce of urban people from their rural roots.

Their influence varies from Region to Region and country to country depending on historical connections and political spheres of influence. Countries which do not wish to be influenced strongly by external cultural and political forces must be prepared to pay what must seem at least in the short term, a heavy price in material gain.

Yet, in many countries inward resource flows have increased to the point where a heavy debt burden is being carried; which means that a significant proportion of the value of their exports is absorbed in debt service; this is a particularly serious problem in some Latin American MIC's (Table 9).

¹ Even so it cannot be said that all those funds have the effects originally intended.

TABLE 8: RESOURCE FLOWS : (1978)

1. NET FLOWS FROM 20 DAC COUNTRIES (\$M)			
a. Bilateral			9,438
of which Technical Assistance	3,900		
Concession Loans	3,750		
b. Contributions to Multilateral Institutions			5,130
TOTAL OFFICIAL FLOWS			22,308
PRIVATE			32,800
VOLUNTARY AGENCIES			1,500
		TOTAL	56,600
Official Aid as % of Donor's GNP		To LIC's < \$400/cap	
UK	0.38		65%
USA	0.25		48%
Neths.	0.85		
(Arabs	2%+)		

TABLE 9: LDC INDEBTEDNESS

		LIC's	MIC's
External public debt as % of GNP	1970	22.2	10.4
	1979	29.8	17.4
Debt service as % of exports	1979	10.8	14.2+

+Including Bolivia 29.6%, Brazil 34.6%, Chile 26.2%, Ecuador 29.6%, Mexico 64.1%, Peru 22.3%.

SOURCE: World Development Report, 1981.

2. Impact on Internal Structure and Development

2.1: General

We can thus characterise the impact of these external linkages as follows:

- (1) the emergence and consolidation of a predominantly urban elite with modernisation ideals, themselves with education and experience sufficient to raise their material wealth and tastes to Western levels, so that they have become part of the international middle class;

¹Keyfitz (1976).

- (2) influence transmitted to the LDC's in policy planning and implementation which has stressed
 - centralised industrial growth
 - agriculture as a producer of exports
 - importation of 'Western' technology, capital goods and consumer goods for urban consumption;
- (3) penetration, in some countries, of multi-national companies whose interests have often focused on the trade in, processing of, and in some instances production of, primary products;
- (4) transfer from institutions financed by IC interests (public or private) of sophisticated technology and capital for
 - a) 'modern' agricultural projects
 - b) 'modern' inputs for improvement of existing agriculture;
- (5) stimulus to certain rural areas (fertile and/or periurban) or classes (landlords, project- and large-farm managers) and
- (6) encouragement of exotic tastes in consumption and stronger ties in commercial production.

In short, external influences have tended to strengthen (indeed, in some countries, to initiate and subsequently maintain the impetus of) urban stimuli on a largely subsistence agriculture. To the extent that the benefits of this process have finished up in urban hands in the form of increased opportunities for urban-based entrepreneurs and bureaucracies, who are the primary beneficiaries of imported consumer goods, outside influences may be judged to have increased urban:rural disparities and hastened urbanisation. The same can be said of the differential effects of outside influences on 'good' relative to 'poor' land areas by means ranging from the stimulation of new commercial production among local farmers to annexation of the best land by MNC's using capital-intensive methods at the expense of evicted peasants, as in Colombia (Burbach and Flynn 1980).

It is true that this polarisation effect, with particularly undesirable results in some countries, has been recognised by academics for some time and publicly declared by the President of the World Bank in 1973, and that many industrialised countries with significant 'aid' programmes have, together with the World Bank, announced their intention to modify the emphasis of their influence towards projects and programmes helpful to the poor, and concentrated more specifically in rural areas. But it takes time to re-orientate towards specific programmes and projects, to perfect the new methodology required and to ensure that a high proportion of the benefits reach those strata of society for which they are intended. Needless to say it also requires the real enthusiasm of local policy makers for this changed emphasis to have its intended impact.

2.2: Variations among LDC's

Over the last twenty years major differences between LDC's have emerged. One can recognise for instance the effects in some countries of

- large-scale exploitation of minerals, particularly, oil, often pioneered and subsequently assisted by multi-national companies;
- to a lesser extent the drive toward establishing or increasing exports of primary agricultural products, the proceeds of which have been reinvested in infrastructure, agriculture and non-agriculture with varying degrees of success;
- the locational advantages enjoyed in relation to the political interests of the USA and other powerful economies;

¹McNamara (1973).

- . the mobilisation of cheap labour for manufacture;
- . important developments in food output.

A very few countries have consciously followed policies designed to establish a high degree of self-sufficiency, putting a high value on independence per se.

Some countries have failed to achieve progress in any of these ways, and may even have regressed economically, in spite of substantial exogenous 'assistance'.

Thus, not only have IC's 'grown away' from LDC's but substantial divergence has occurred over the last 20 years among the LDC's themselves. Those LDC's which have enjoyed substantial growth and are in the MIC group include, amongst others less easily categorised -

- i) those which have thrived on oil, doing little that is effective to develop their agricultural sectors (where these exist); ¹ these ¹ countries are mainly in the Middle East like Iran, Iraq, Libya, Saudi Arabia, Kuwait, but also include Venezuela and Nigeria; other major beneficiaries from oil and minerals like Zambia, Chile, Bolivia, Trinidad & Tobago, Yemen PDR and Angola, though much less successful, might be added here;
- ii) those often rather large countries which have developed both industry and agriculture but where development is often markedly dualistic in their rural areas as between 'modern' and 'traditional' technology and institutions, and in income levels, and where urbanisation has also led to markedly different central areas and poor suburbs; Latin and Mezo America have both large (e.g. Brazil, Mexico) and smaller (e.g. Colombia, Ecuador, Peru, Guatemala) countries in this category and there are examples elsewhere (e.g. Turkey, the Philippines);
- iii) those smaller oriental success stories (notably Taiwan, South Korea) where industrialisation has not resulted in a 'patchy' agricultural sector, and where an increase of equity between town and country and within each has been achieved;
- iv) those Southern European countries - Spain, Portugal, Greece, Yugoslavia - with a longer history of economic growth but diverse agricultural structures.

The first and second groups are still experiencing high rates of population growth; in the third population has fallen dramatically, a trend probably itself related to rapidly rising affluence well distributed; in the fourth, population growth was already low by 1960, in part due to emigration to IC's.

Among the LIC group, although there has been a wide spread of economic growth rates, no less than eight of 36 LIC's recorded negative per cap. growth rates during the period since 1960 (i.e. on average the population of these countries has got materially poorer). The LIC countries are to be found particularly in the Sub-Saharan Africa and South Asia Regions. Amongst those with negative or low rates of economic growth, some are densely populated overall (e.g. Bangladesh 590/sq.km.), others sparsely populated (e.g. Niger 4/sq.km.); nearly all have estimated population growth rates of more than 2% per annum, which in some cases are lower than they otherwise would be because of periodic checks to growth arising from

¹ Now separately categorised as CSOE's by the World Bank.

severe under-nutrition. Thus population pressure in these countries, at present levels of technology and capital investment, is severe. The reasons why, in spite (or perhaps partly because) of external assistance over a long period, these countries have failed to prosper are many and varied. They include, though not ubiquitously, difficult terrain, absence of any special opportunity for resource development, and difficulty of access to world markets for primary products. Persisting low levels of education and health, lack of appropriate entrepreneurial and organising ability, weak and periodically disrupted political structures are common accompanying characteristics. To explain adequately the positive and negative effects of external links and exogenous intervention in these countries would require individual examination in depth and over time which is outside the scope of this paper.

3. Summary of the Wider Perspective

Section A.II has been concerned to assess the impact of the rest of the world, particularly the IC's, on LDC's. It has been emphasised that the influence of the IC's

- i) has been strong and sustained over a long period in most cases,
- ii) has had a marked influence on population growth rate chiefly by the reduction of death rates through the spread of medical and related technology,
- iii) has acted so as to exaggerate the apparent attractiveness of the urban areas, particularly the metropolis, and so to encourage urban migration,
- iv) has, in a variety of ways, increased both the pressure and ability to commercialise agriculture, though supply response has not always matched demand increase;

as a result

- v) has sharpened the contrast between indigenous rural people and those already mentally and socially urbanised who are concerned with raising the outflow of agricultural products and resources,
- vi) has intensified the differentials between fertile and infertile, and accessible and inaccessible land areas,
- vii) has, where natural and capital resources are scarce, increased local competition for their control and thus intensified rural social stratification.

It does not of course follow from this analysis that less intrusion by exogenous interest would necessarily have resulted in faster or more egalitarian economic and social progress in LDC's. This many-sided process has obviously in retrospect, had its desirable and undesirable aspects.

¹ It is perhaps worth noting that Bangladesh was estimated in 1963/4 to have 40% of its rural population categorised as absolutely poor (calorie consumption less than 90% of requirement), and 5% extremely poor (calorie consumption less than 80% of requirement) and that by 1973/4 these percentages had risen to 78 and 40% respectively. Yet B/D has been, particularly since independence in 1971, the subject of massive aid programmes. Aid has accounted for at least 75% of all 'development' expenditure in recent years; gross domestic saving was nil in 1978.

A.III. SOME OF THE SOCIO-ECONOMIC ASPECTS OF RURAL CHANGE IN AN URBANISING WORLD

Having established the main outlines of the urbanisation process in LDC's, which are reinforced by exogenous influences particularly from the 'North', it remains to look more closely at the socio-economic implications of change at the local level in rural areas. The combined effects of population growth, urbanisation and commercial penetration centred particularly on new technology, have been for the vast bulk of tropical rural people, no less than traumatic. In the light of recent changes, only a very small proportion of them can assume that life in the future will follow a predictable course. As recently as (say) fifty years ago many rural communities were living roughly in equilibrium with their natural environment, largely self-contained and pursuing lives changing little from one generation to the next; for hardly any is this still true. What follows is a fairly cursory attempt to examine the elements of change and its variation from place to place, first in terms of communities, second at the level of families and individual decision-makers.

1. Changes at the Rural Community Level

'Community' implies social cohesion related to the common interest of members. In the rural context, this may be loosely reflected in the tribal organisation of sparsely distributed and (maybe) mobile populations or in villages in more densely settled populations. In both cases complementary roles among members, some provision for the support of the disadvantaged, and recognised leadership are implied. In both cases also, long-term (though not necessarily permanent) equilibrium with the natural resource base is implied.

Recent changes have had diverse and complex effects. A complete classification of those would have to be multi-dimensional. A naively deterministic approach would, moreover, fail for it is patently obvious from anthropological study that the ability of some groups to cope with change is different from others in seemingly very similar situations. The elements of chance - in gene mutation no less than the random impact of hurricanes, earthquakes, droughts and other natural phenomena - are enough to discourage any systematic analysis. Some broad contrasts however can be selected as examples.

1.1: Communities beyond the limits of city hinterland

In these areas commercialisation has so far changed the pattern of economic activity relatively little. But influences (such as medical and veterinary services, water points) have penetrated and have been sufficient to alter population growth. Such communities are characterised by intensification of natural resource use. In many parts of this zone the human carrying capacity of land at current levels of technology is limited; overgrazing by herds, or over-cultivation, often by the intensification of shifting cultivation systems, has resulted in increasing constraints on levels and security of consumption; population 'overshoot' and eventual social disruption by partial or total migration is now occurring.

- (a) The Southern edge of the Sahara, both Sahel and Soudan zones exemplify this process, where population pressure serves to exacerbate an already insecure existence. Where there is added to this situation an intrusion of political strife, spilling over from other areas, as in the Ogaden, N. W. Kenya and N. E. Uganda, the already frugal basis for communal living may be indefinitely disrupted with the most dire human consequences. These people have little alternative but to migrate and seek assistance merely to survive. Unless natural resources elsewhere can be substantially developed for their support, the majority of the survivors will become long-term refugees dependent on charity, with only slow dispersal, most of which will be to distant places and occupations.
- (b) Rather similar circumstances obtain in the Himalayan foothills of Nepal, on rather more fertile valley floors and unstable hillsides. Population growth and natural resource decline are both following exponential paths. Technological innovation of sufficient power, though in theory available, is not economic and locally acceptable; effective institutional reform (in respect of land and capital control) is unlikely, and in any case by itself insufficient. Very few of the community can be said to have a secure future, and emigration, becoming increasingly difficult to accommodate on the neighbouring lowlands, can only be partially countered by improving agriculture and increasing non-agricultural opportunity. In spite of the external aid available, things are likely to get worse rather than better.
- (c) Rather different from examples (a) and (b) are those remote areas where population growth and growth in resource productivity may be roughly in balance, but where new technology and/or investment from 'outside' are likely to be required to ensure this balance in the long term and to set in train the process of creation and reinvestment of local surpluses sufficient to improve the level of living, even while it is assumed that some will find migration attractive. Success in these areas, even for the minority, is by no means assured; much depends on the economics of new technology in transport and other infrastructure and the extent to which national administrations responsible for such areas see fit to afford, with the assistance of external aid, the diversion of scarce resources to these uses. The Southern Sudan and some other rather remote parts of Africa, Latin America and South East Asia are in this category.

1.2: Communities on the expanding boundaries of urban hinterlands

The hinterland boundary moves with falling transport costs,¹ perhaps supplemented by the introduction of technology which may be totally foreign to the indigenous community.

- (a) The establishment and further extension of plantation crops - such as tea in the Nilgiris - is an example. The first effects may well be entirely adverse for the local population, which in this case comprised

¹Falling transport costs is at present not a universal phenomenon. Non-oil producers, facing severe general economic difficulties (e.g. Ghana), are finding it increasingly difficult to maintain, let alone improve, infrastructure.

tribal peoples subsisting, according to altitude, on forest hunting and gathering, shifting agriculture or communal grazing. Tribal lands were summarily sequestered, hired labour was imported following non-co-operation by the indigenous people, and diseases were also imported speeding further their decline. The best that can be hoped for is a combination of 1) a measure of integration of tribals with the new agricultural enterprises as hired labour or as outgrowers, 2) encouragement of non-agricultural occupations related to their innate skills, and 3) programmes designed to prepare the next generation for migration. Success in such a transition needs benign intervention from outside of a highly intelligent order; the preservation of community cohesion while at the same time assisting individuals and families to change their aspirations and skills *pari passu*, is a process likely to be too costly and difficult for LDC bureaucracy.

Such cases have been widespread through history. Under the stimulus of either private exploitation and/or public policy the hinterland boundary has been pushed back with virtually no thought for the indigenous communities, particularly (but not only) where the latter have not reached the stage of establishing titles to their land. This was the general rule of the frontier, in fact, in both temperate (e.g. North America, Australia) and tropical areas (e.g. Amazonia, Southern Africa, as well as the mountain fringes of Southern and South East Asia).

Similar difficulties of integration occur where (as already alluded to above) LDC policy is to transfer population from apparently over-populated (e.g. Java) to apparently under-population areas (e.g. Sumatra, Irian, etc.). Indonesian policy, frequently reiterated in revised form, has invariably fallen far short of target with the additional failures

- 1) to integrate local and immigrant populations and
- 2) to establish viable agricultural systems capable of supporting populations appreciably higher than those of the indigenous regime.

- (b) The ability and readiness of indigenous communities to accept commercialisation and take the change in their stride depends on the nature of the opportunities presented, and their degree of match with the natural resources available. The simplest case is the opening of a market for products already produced, where land and/or labour reserves allow expansion at low opportunity cost, as for instance with the development of commercial rice production in Thailand and Burma. Even then community structure is likely to change, and not all will necessarily prosper.

The introduction of new crops is not without technical problems and may depend on adoption of new institutional forms, the classic case being the organisation of cocoa farming in Ghana (Hill, 1970). Incentives in the form of both 'carrots' (product prices, input subsidies, etc.) and 'sticks' (poll or land taxes) may be required for effective results, which colonial powers were not slow to use in the nineteenth century and LDC governments to carry on in the twentieth century.

The introduction of radical new technology and farming systems to existing subsistence communities presents even bigger problems, as has been the experience for instance in the conversion of semi-nomads and dryland farmers to commercial irrigated agriculture.

Radically new skills and longer working hours are required against a promise of higher income, the benefit of which may not be quickly apparent. The ingenuity shown in the introduction of long-staple cotton in the Sudan in the 1920's, where care was taken to assure adequate food and fodder crops and to settle the farmers in such a way as to preserve clan cohesion and hierarchy, clearly paid off, although the early years of the Sudan Gezira Scheme were by no means without crises. That the effectiveness of the Scheme has declined as more has been asked of it in recent years is testimony in part to the ambitiousness of seeking such a radical social transformation in life style, though there have certainly been other contributory factors for the decline in this case.

1.3: Communities within the hinterland

The nature of socio-economic change within the hinterland can be seen as the result of the complex interplay of population growth, rural-urban and rural-rural migration, and technological change as well as of variations in natural 'fertility' and distance from the urban market.

Whichever of the first three variables dominates will produce distinctive effects. For example:

- (a) Bangladesh is a case where population growth, together with an already dense population dominates; urban growth, although 6.8% in the 70's is insufficient, starting from a low base (8%) to relieve the pressure; technology change has failed so far to ensure national food supply, let alone stimulate production for sale or export. The effect has been to intensify social stratification within the rural community by pauperisation of the landless rather than by further aggrandisement of the landed. Yet, although not uniformly fertile, there is great undeveloped potential, particularly by way of intensification of cropping through pump irrigation and flood control. Choice and promotion of small-scale technology in irrigation together with public works schemes which effectively spread benefits to the poor could simultaneously achieve both economic growth and greater equality. But it is doubtful whether the will or ability exists in the rural communities themselves to achieve these changes without massive external aid efficiently deployed (see Clay, 1981, Gill, 1981, Howes, 1981).
- (b) In the black Southern African countries bordering the Republic, migration - both to local towns and to mining and industry in South Africa - dominates the course of rural development. While limited natural resources, particularly in Lesotho, alone act as a constraint to improvement programmes, the absence of male labour increases the difficulties (Kotosokoane, 1979).
- (c) Technological change has been a major component of rural change in the 1970's, particularly in those countries capable of growing rice and wheat, which have benefitted from the so-called 'Green Revolution'

¹ The case of Swaziland appears to be slightly different (Low, 1981). With rather better natural resources, it is still worthwhile migrating for those capable of commanding high-wage employment; the effect of development programmes is chiefly to make subsistence levels in rural areas easier to maintain, and to release more migrant labour while the family retains its rural base and local rights within the tribal area. Restrictions on permanent migration together with high productivity per man in white S.African farming, must also affect the character of rural life in the Region.

centred on high yielding varieties (HYV's) and associated inputs. The effects have been much discussed and investigated. Clearly the impact has varied widely; its most striking aspect has been that inputs which were apparently scale-neutral have not been so in practice. The result has been that within any one rural community where control of resources is unequal between farmers, those with larger resources have tended to benefit most; even to the extent that small farmers may actually have suffered retrogression through falling product prices or loss of resource control through indebtedness. An increased skewness of wealth has been the result in many rural communities, while increased flows of inputs and outputs have benefited traders and associated urban interests (Pearce, 1980).

Distance from the market centre as an influence on rural change at the community level has been much less studied. Dasgupta (1975) has however produced extremely interesting evidence from India, a country where a hierarchy of urban centres and rural-urban trade has existed for a long time and where the process and influence of commercialisation, largely emanating from urban centres, has built up slowly. His study using component analysis is based on 126 village surveys carried out before the Green Revolution and collected from all over India where-ever they occur. His objective was not to test hypotheses relevant to the present theme yet his results contribute strong indications of the differential effect of distance from market centres. He concludes that his villages fall into classes 'A' and 'B' with intermediate cases, with 'A' and 'B' representing poles of dissimilarity in a number of related respects. That is to say, 'B' villages have the opposite characteristics of 'A' which can be described as follows:-

- 1) they are more accessible to urban centres,
 - 2) they are larger,
 - 3) they are more commercialised in the sense a) of the percentage of village products sold, b) of the degree of reliance on cash crops;
 - 4) 3) is linked with higher land productivity, double cropping and diversification of cropping pattern, a higher man/land ratio, a higher level of technology and greater use of irrigation (many of which characteristics may be associated with higher land potential, which, as we have already seen, may well influence the siting of urban centres in the first place);
 - 5) levels of living are higher in that a) the level of education is higher and b) the consumption of food and inferior cereals as a percentage of total expenditure is lower;
- But 'A' villages are
- 6) more highly stratified socially as shown by a) the smaller proportion of self-employed in agriculture, b) the higher proportion of tenancy, hired agricultural labour, non-agricultural employment and migration outside to work, c) the larger the proportion of nucleated families, d) the higher the number of distinct castes, tribes, linguistic and religious groups;
 - 7) more prone to a) concentration of land and landlessness, and b) indebtedness.

¹In contrast with African and Latin American conditions where, although different from each other, the impact of urban and foreign influence in both has been much more sudden and specific in terms of incentives applied, areas identified and commodities produced.

Thus closeness to cities and greater commercialisation seem to be associated with higher average levels of living in some respects, but also with greater inequality. Conversely more remote villages, though more focused on subsistence agriculture are less unequal.

As to cause-and-effect in the change process, Dasgupta says:

"It is, however, not easy to say, of the multitude of variables or groups of variables, which caused changes to which; or how the process of modernisation was initiated. Is it the growth of the nearby town which attracts the rural population from the interior towards it and nearby villages; which in turn increases the size of the village population, reduces the availability of land per capita and so eventually creates the problem of landlessness and unequal distribution of land? Is the social heterogeneity of A-villages a consequence of population growth through migration which brings in people belonging to many different communities; or of growth through the merger of a number of smaller settlements containing different communities into one village? Does this proximity to a large urban area also encourage the commercialisation of agriculture in response to the farmer's industrial and consumption needs; and the more intensive cultivation as a result of the access to technical knowhow and financial resources, and the need for higher productivity to feed a growing population on limited land?

"Similarly, one can begin with development of road and rail facilities, which then leads to commercialisation of agriculture, and growth of population, which in turn encourages diversity of agriculture and social life and intensive cultivation. There are many possible such chains of causation, initiated by many possible factors, and each sequence could be described as a modernising process."

1.4: Optimal conditions for rural community development

It might conceivably be possible in theory, though probably impossible in practice, to determine what rates of population growth, migration and technological change make for optimal economic development (i.e. some prescribed combination of income growth and distribution) for a given set of natural resource conditions in a given local context in space and time. What course can best be taken is considered further in Section B. It is worth noting here however that there do seem to be some rural areas where, through resource development and institutional change (either sharp or continued over time) improving levels of living for virtually all people have been achieved. This has occurred in spite of a substantial (but not excessive) rate of population growth, a substantial (but not excessive) rate of rural-urban migration and at the same time a rapid diffusion of technological innovation. It is significant that urban development, closely connected in economic activities with the rural development, has also occurred. Taiwan, South Korea and the Indian-Pakistan Punjab seem to be possible examples.

¹Overall 'participation' rate - i.e. the percentage of village population in the work force - is higher, indicating a higher active involvement by women, children and the old, in 'B' villages.

2. The Impact of Change on Rural Families and Individuals

In attempting to understand rural change, it is necessary to examine the details of changing social structures and the context of human decision-making. The view taken here will be that, while environmental conditions will tend to act as determinants to the range of choice of individuals, individuals will differ in their acceptance of opportunities. Thus, while overall change may be moving toward disaster or prosperity, some individuals will always survive in the first case and some will always fail in the second.

2.1: Changes affecting the decision milieu

This diversity of personal experience will take place in the context of institutional change. The following list is relevant to who takes decisions as circumstances change, what the options are, and therefore, by implication, what parts of the milieu are important for policy makers concerned with advance toward national objectives.² It is helpful to start with the household context, although it may contain more than one decision maker with different degrees of autonomy.

1) Changes in family composition and structure

High population growth rates imply a dependency ratio which is growing at the same time as the cohesion of the extended family system tends to break up into nuclear families with their greater mobility and growing adherence to commercial modes. At least this is frequently reported in Africa, though Dasgupta's evidence for India quoted above suggests a more complex process when commercialisation impinges upon or coincides with, population growth and resource-use intensification over a longer time-span. Of course, at any one point in time, even in rather static societal conditions, the life cycle will ensure that households differ in size and dependency ratio.

2) Expanding horizons

Increased knowledge of what is possible or thought to be possible, percolates eventually through the whole rural community but reaction, depending on a complex of psychological and physical characteristics of individuals, is uneven; the relative importance of acquiring land, money for reinvestment, money for conspicuous consumption or investment, or non-agricultural skills will depend partly on local circumstances, opportunities and cultural values of the community. The culturally influenced indifference curves representing the relative attractiveness of productive work and of leisure as set out by Mellor (1966, p.165) still apply, but there would seem, commonly, to be a change in their shape, either voluntary or forced, towards an increased preparedness for productive work. However, to the extent that resource control within the community may become more skewed following high population growth rate or the uneven impact of new technology, some members of the community may be frustrated (see 4) below).

¹In the broadest sense, including political conditions, expected prices, etc. as well as physical conditions.

²Policy makers are of course not separate from the change process; they, the politicians, are also changing.

3) Changes in the focus of family enterprise

A movement towards commercialism whether on or off the farm is generally led by males, yet an increasing weight of work, responsibility and strain tends to fall on the women who are often expected to continue to supply the bulk of subsistence food and fibre, fetch water and fuelwood (often from increasing distances), care for the dependents, prepare the food and make clothing, and also often do seasonal off-farm work. At least this seems to be the case in the early stages of transition in Africa and may arise from the fact that, under subsistence conditions, males generally seem to have more time to spare (Thornton, 1973a). The same is not always true in those societies where it is the cultural norm to sequester women; here increasing commercialisation may, if successful in increasing income, result in a reduction of female activity, though much post-harvest processing, other household duties and even trading will continue behind closed doors. In fact, change in the roles of women as prosperity continues to grow, particularly if access to an urban environment occurs, may be such as to result first in decline, then in increase, in productive activity, the last stage being coincident with a recognition of women's independent potential, higher levels of education, later marriages, smaller families and longer life expectancy.

4) Changing work loads

Physical effort may in some cases increase as the result of commercial opportunities as described in 3) above, but it may also increase, with declining marginal productivity solely as the result of population growth. If social stratification occurs as is eventually likely, distinction between employers and employees will emerge: the bulk of the physical work being concentrated increasingly on the latter. Casualisation within a commercial labour market and abrogation of responsibility to ensure the support of the less fortunate within the local community seem to be the inevitable accompaniments of the commercialisation process.

The effect of migration on work loads is difficult to assess. If the migrant is seasonal or temporary it is likely that he is confident that wage employment is available. In this case the work burden of both the migrant and the family members left at home (most commonly the women, the old and the young) may increase. The returns derived by labour will depend on the extent to which migration arises from the 'push' of expected economic decline (when it might be low) or from the 'pull' of expected prosperity. To be set against higher income derived from migration must be the costs incurred by those left at home who may suffer from diseconomies in the scale of the family labour force. There is evidence (Low, 1981) that whether or not the marginal family member should migrate is a nice calculation at which those concerned are skilled.

The effect of changing technology depends in part on the nature of the technology itself - whether it is linked to capital which is land augmenting or labour-saving, and in part on time. The experience of the 'Green Revolution' would seem to be that in the

¹See footnote p. 36.

short term HYV's and associated inputs may increase labour demand either to handle higher yields or more multiple cropping. In the longer term however, those profiting may experience the increasing attractiveness of leisure, attainable by the substitution of manual labour or sharecroppers by machinery, with additional satisfactions deriving from status and reputation. Whether rural mechanisation occurs before or after the increase in unrequited demand for urban labour is a crucial element in the success or failure of the economic development process (Finney, 1972, Binswanger, 1980).

5) The increasing generation gap

This arises from increasing life-expectancy in the older age groups, together with the rapid spread of primary schooling for the young. The latter is often orientated away from, rather than toward, increasing the younger generation's interest and competence in coping with rural life; it is a major factor adding to social disintegration by encouraging many to migrate, and serves to alter not only attitudes to the desirability of being a 'traditional' farmer but also assumptions about the patterns of activity and responsibility associated with the human life cycle in a rural environment.

6) Commercialisation of transactions

As the household extends its earning and expenditure links the changes may include

- i) increased individual autonomy with the family,
- ii) increased borrowing and lending of land, labour and capital, which may result in
- iii) increased indebtedness; the way to increased power if sound expansion opportunities are to be found, but the way to penury for the unwise or unlucky; in other words a major new element of risk is introduced,
- iv) increase in formal contracts - requiring literacy.

All these trends are likely to increase the distance between the successful and the unsuccessful.

7) Increased specialisation of function

Whereas the subsistence household takes responsibility for feeding, watering, housing and clothing itself, commercialisation is characterised by a splitting of this self-sufficiency with resulting economies and advances deriving from special skills and economies of scale in operation. Interdependence may however carry a cost if some parts of the family work force is thereby rendered redundant.

Specialisation will tend eventually to affect the agricultural enterprise to the point where hitherto self-contained energy and fertility maintenance systems may be discarded, fuels and fertilisers increasingly being bought in; storage, processing and maybe even food preparation activities are commonly hived off to non-farm specialists. Textile making, house building and repair may cease to be within the household's competence, all enjoying the advantages both of concentration on few sites and of trained management (though still providing work for farm household members where a dispersed industrial and service structure allows).

8) Stratification of decision-making

Increasing complexity of economic and social activity results in new institutions and organisations. Some of these will be the result of 'horizontal' integration among rural people more, or less, equal, as in co-operatives. Others will be the result of the introduction of urban organisers - in settlement schemes, rural service firms, etc. or 'vertical' integration. A notable aspect of rural change is the intrusion of urban decision makers of both the private and public sectors, bringing their own values to human interaction. A discontinuity exists between those of rural and urban origin. Only a small proportion of the rural people may make an effective bridge across it, thereby ruling out the possibility of access to urban services in an equitable way, at least in the early stages of development. The reasons lie partly with the unfamiliarity of the rural people with, and distrust of, the intruders, and in part due to the difference in objectives and values, those of the intruders being to change the functions of the countryside toward national and often predominantly urban purposes, and in doing so, almost without exception to further their own personal interests.

2.2: Development of entrepreneurship and institutions

The changes discussed under 1)-8) above imply increasing opportunities and increasing risks for some rural individuals; those who seek opportunities, and who take risks and are lucky, will succeed by comparison with, or at the expense of, others. Whether all or only some prosper will depend on the nature and scale of opportunities, which will in turn depend on the population pressure on natural resources; on the nature, number and countervailing power of the 'urban' intruders; and on local social values which may encourage or, more likely, retard the enterprising. These are at least the lessons from the history of Europe, North America and Japan.

Continued general economic expansion at the community level then will depend on the following:

- 1) Natural resource flow being adequate in the light of continuing population growth;
- 2) Technology, from indigenous or exogenous sources, improving sufficiently fast and widely spread, so as to ensure improving production functions and to minimise the effects of resource constraints;
- 3) Institutional change of a kind which gears with the improving abilities of the people and the introduction of technology, which together result in increased social net returns;
- 4) Human attitudes sufficiently adaptable to changing relationships and individual status;
- 5) Absence of adverse factors deriving from national instability, corruption, rapaciousness or monopolistic tendencies among urban intruders, whether in the private or public sector;
- 6) A high level of intelligence and skill in individual decision making with the variety of human talents available given maximum freedom of expression.

¹ This will almost always be a process in which an intrusive element is involved - a missionary, a government agency.

It would be unrealistic to assume that all these conditions will always (or very often) be present in one area, though responsible government might be expected to influence many of them.

The above list includes no specific expression of egalitarian sentiments. Clearly on the grounds of humanity alone, provision is required for the grossly unfortunate. Pending the development of satisfactory services at the national level such insurance needs to be built into local institutions. This is one of the most difficult aspects of the transition from self-contained subsistence societies to fully-fledged national integration. In both of these, a modicum of support is commonly given to the severely disadvantaged; in the transition, the traditional values and customs crumble whereas a larger safety net is slow to materialise. Large-scale social alienation both in the burgeoning cities and in the rural areas is commonly the result.

But quite apart from humanity considerations, destitution of a proportion of society is bad for economic progress as a whole. On the one hand resources are wasted; on the other, demand for consumption goods, which would otherwise stimulate the economy, is suppressed. The social net gains mentioned in item 3) are likely to be enhanced by institutions (together with ultimate sanctions embodied in the national law) which limit the skewness in resource control among entrepreneurs, whether this be in the form of administered land ceilings, intra-community co-operation or in the form of special government agencies for the effective assistance of the less well-endowed. Observers, planners and administrators outside centrally planned economies with socialist philosophies have been slow to deal with these issues.

2.3: Spatial location of new economic activity

The process of rural social change alluded to above, together with the urbanisation of society discussed earlier, point to the inevitability of the growth of an hierarchy of centres of towns and villages; it would however be unwise to think either of some universally applicable hierarchy or of one that has a fixed development programme and permanent end-results.

Growth 'upward' involves the formation of groups co-operating for a variety of purposes; maybe co-operatives in the production and marketing spheres; groupings politically or religiously based, which broadly reflect society's wishes for the organisation of services whether physical or spiritual.

Spread 'downwards' of 'urban' interests involves the distribution of centrally 'produced' goods and services and the devolution or the management of these - to district representatives of government, branches of banks, agents of urban firms.

The inter-digitation of these two is of crucial significance for rural development.

¹This having been said, there remains a basic dilemma at the bottom of the income scale, which will be discussed further in Section B.IV.

But the optimal catchment areas of participation, the radii of activity of a farmers' co-operative, of a locally elected political body, a government health centre or a branch bank, will depend on determinants particular to each of these activities. These will be partly affected by the technology involved (whether (say) tractor services are included in the co-operative), on the personnel and style of management employed (whether (say) the health centre concentrates on mother-and-child health care (MCH) or provides curative facilities), but also more fundamentally on the density of population and its effective demand (not only what it needs but what directly or indirectly can be paid for), and on communications and transport, the latter to some extent a function of terrain. It should be reiterated that while the spatial development of off-farm activities is a pre-requisite for a continuously rising level of living, constraints in some areas of low population carrying-capacity may make it impossible; the ultimate result of this is that such areas will be abandoned.

Great contrasts obviously currently exist between countries, and between regions within them. A slow rate of growth of population and urban concentration may be expected, for a given population-carrying capacity, to result in a widely based hierarchy of 'market' towns, as in India and China. Clearly population and urban growth have been so rapid in some parts of Latin America and Africa that such a structure has had insufficient time to form. How market forces act to modify existing patterns will depend on a host of factors, not the least important of which is who the major decision makers are, whether expatriate or national, with wholly urban or partly rural interest. Urban decision makers in the public sector may also be expected to intervene. 'Service centres' are nowadays a common policy concept in developing countries - implying, rightly, that wherever possible, centralised activities should be brought together in a few sites. But questions about the economics of a) whether a service is feasible, b) what is its optimal radius of activity, c) what precisely are the complementarities of bringing services together, have been relatively seldom explored. Indeed, the subject is further complicated by:

- 1) the difficulties of choosing between alternative techniques - bad enough when it is a matter of size and siting of (say) a palm-oil extraction plant, but worse when the cost-effectiveness of (say) alternative health programmes is the issue,
- 2) the dynamic nature of technology itself, which will affect, over time, the suitability of choices once made.

These complications together affect what values are appropriate in the appraisal of a whole range of investments from roads to schools, to storage bins, to housing and domestic services for administrators and managers.

3. Summary of Socio-economic Aspects of Rural Change

The socio-economic aspects of rural development can be boiled down to two considerations - on the one hand the degree to which new individual attitudes and aptitudes can be accommodated within indigenous institutional growth and the co-ordination of this growth with urban influences; and on the other hand the locational distribution of differentiating and new economic activities of a very wide range. Rural change is seldom seen in these terms. Empirical description and measurement of the kind required is very seldom attempted. Normative criteria against which to assess change need to be devised. The gap which currently exists between the statement of national objectives, and a crude census of what exists in an

inadequate number of dimensions is, for the policy maker, unbridgeable. More and different information, and increased understanding of processes are required. But in order to economise in further search it is worth considering what might be the policy implications and options arising from the argument so far pursued, and this is the content of Section B.

B. POLICY MATTERS - FIRST THOUGHTS

Preamble

It would be tempting to seek in the foregoing notes a basis for policy formulation in any given country; to use human resource characteristics - population density (related to natural resources), or growth rate, degree of urbanisation or rates of urbanisation, technological levels or rate of change, the degree of development of indigenous institutions in the rural sector, etc. - as a starting point for a prescription of paths leading toward stages in economic development.

Such an approach would require assumptions:

- 1) that the variables can be reliably quantified;
- 2) that the aspects of the model we have dimly described are sufficient for us to 'explain' how the economy works and by implication how, given certain imposed/induced changes, the whole may be 'advanced' in a direction universally accepted as an advance;
- 3) that nation states are sufficiently autonomous and alike that they can be placed in some category or point on a scale or group of scales; - on the contrary, the degree of autonomy is small,¹ the nature of states variable in their internal balance and potential.

Because these assumptions are by and large unwarranted, a mechanistic approach to prescription is therefore unrealistic.

Yet, in spite of these difficulties - that our measures are faulty, that we have not specified sufficient of the State 'machine', and that States are unsatisfactory entities for generalisation anyway - there may be some things we can say about policy options provided we bear the difficulties in mind.

It might be possible for instance to judge that in some cases population is growing too fast (or not fast enough), urbanisation is proceeding too fast (or not fast enough), that external domination is too oppressive (or isolation is inhibiting development), that technological diffusion from outside the rural sector is inappropriate. Indeed it may not be too fanciful to argue that, if we accept a rather simple measure or set of measures as indicative of economic development we can say that there are optimal rates of change in the key human variables alluded to, to which policy makers in any one set of circumstances should be moving. For instance, can't we at least say that, in the case of Bangladesh, population is growing too fast, urbanisation is too slow, institutional development both within the indigenous sector and as between rural and urban sectors badly needs assistance? Conversely, can't we say that in Brazil population is growing in an ill-distributed manner rather than too

¹Malaysia, for instance needs a large part of Singapore to make it whole; and Chad and Mali can never expect, in terms of level of living to equal the development of Ghana or Ivory Coast. Conversely some Indian States like Tamil Nadu (50M) might be developed as autonomous units.

fast, that urbanisation is too concentrated rather than too fast and that technological and institutional development is so lopsided as to result in a society with strong indication of locational dualism? Is it not also clear that metropolitanisation in many of the small countries of Sub-Saharan Africa poses a serious political and economic problem?

At least it may be possible to establish general principles by which to suggest policy emphasis, even though we accept that the pace, direction and extent of economic development will never be even approximately similar between all LDC's and certainly not as between LDC's and IC's.

At the present stage of understanding it is probably only possible with any confidence to suggest in an international treatment of this kind, some general principles by which to proceed; to discuss the array of policy options, showing where they might be applicable; and to indicate what else, in the meantime, we need to know in order to proceed with more confidence. This will be the procedure in what follows. Nevertheless, it is encouraging to note from the work of Silvers and Crosson (1980), in an LDC where district and urban data are good (Mexico in their case), that it is apparently possible fruitfully to address, with the help of cross-sectional data and multiple regression, such questions as

- 1) can public policy as applied to rural regions be expected to affect rural-to-urban migration in Mexico, and, if so, what are the more effective instruments for implementing such a policy?
- 2) can such instruments be applied to alter the distribution of migrants as between Mexico City and other smaller cities?

1. Assumptions

We must assume that

- existing autonomous LDC governments will continue for the time being,
- IC governments and private interests will wish to influence them from motives largely of self interest,
- policies for development will continue to be formulated by LDC governments and that
- trade and aid policies for development purposes will be the concern of LDC's, IC's and international agencies.

We can further describe the role of an LDC government as a sustained (though not necessarily smoothly continuous) attempt to manipulate the process of change for explicit or implicit ends which are

- a) both material and non-material¹
- b) concerned with inter-regional, inter-class and inter-personal advantage and balance, in the short, and to a lesser extent, the long term.

¹The assumption that all governments and their subjects are directly or indirectly concerned with material objectives is a dangerous oversimplification; though material and non-material are often mystifyingly inter-twined (see Iranian policy on American hostages).

It must be recognised that because governments are the products of the circumstances they attempt to manipulate, there is a 'feedback' factor which prevents them from acting for the 'social best' as externally perceived, and 'social best' can always be interpreted as survival of the current government, at least in essentials.

2. Generally Applicable Principles

In view of the wide diversity of situations as between LDC's, to the point where we may even doubt the wisdom of treating them as a class, we content ourselves with suggesting some principles that are likely to be generally applicable and widely accepted as underlying necessities among policy makers.

- 1) The rate of growth of production and therefore, hopefully, consumption must exceed the rate of population growth in the short and long terms

This implies that if overall material growth is to continue the value derived from natural resources must increase faster than population in the long term. While emphasis could conceivably, in the short term, be placed on some redistribution of resource control, this could be politically justified only as a palliative or as a stimulus to an improved rate of natural resource utilisation (a possibility which, as already observed, seems often to be overlooked by policy makers).

This in turn has two implications:

- i) Although the future course of technological innovation is unknown, as is the degree of human tolerance for a rising global population, we must regard the eventual stabilisation of the global population as desirable; and its stabilisation, or even decrease, in some LDC areas as a pressing necessity. Although the relationships are complex there seems to be a negative correlation between population growth and economic development.² It must therefore be a matter of priority to proceed as fast as possible, in LDC's to that level of economic development - or, rather, to establish those crucial components in living conditions - which result in a continuous fall in desired family size at least to the point of population stabilisation.³ Moreover, it is important for LDC's that IC's stabilise their populations and in turn their demand on global resources.
- ii) Efforts to conserve and improve the productivity of natural resources must be redoubled. This implies taking a longer term view of resource use than has commonly been the case hitherto. This affects a wide range of issues from forest clearance to the importation of toxic biocides.

¹This is not of course to deny the difficulty of establishing what are 'good' and 'bad' policy objectives and ways of attaining them.

²That is, omitting the effects of local famines, wars, etc. Interestingly the data available suggest that there is a positive but not necessarily a linear relationship between life expectancy at birth and GNP/head.

³It is recognised that there may be a very few countries where this principle may not have high priority in the short term, or where massive relocation of people could ease regional pressures.

- 2) The process of urbanisation is inevitable, with some reservations desirable, and in certain circumstances should be encouraged

The relationship between urbanisation and material levels of living seem to be inescapable and up to a certain point the former would seem to engender the latter; there is predictably an inverse relation between the percentage of the labour force in agriculture and GNP/head. The limitations of GNP/head as a measure of the level of living must of course be borne in mind, but a similar relation exists between the percentage of the labour force in agriculture and life expectancy at birth (another persuasive indicator).

The reservations arise from the disadvantages already discussed of 'metropolitanisation', which is already widely accepted as a problem in some LDC's and is acknowledged in many IC's.

- 2)a. There is an optimal rate and pattern of urbanisation in any one situation

If it be accepted that economic growth is desirable and associated with urbanisation but that a high rate of 'metropolitanisation' is undesirable, it follows that, for any given region or country at a given point in time there must be some optimal rate and pattern of urbanisation. Although this can be sensed it is not likely to be precisely identified or susceptible to achievement by direct policy manipulation. Nevertheless, since the disadvantages of a non-optimal course may eventually redound to the discomfort of the government, it is in the latter's interest, if it is to survive, to try to interpret the current and predicted future mix of individual values in order to approach a broad concept of the optimal. 'Interpret' here of course means assessing the implications of various scenarios; it is incidentally not ruled out that on many issues the government may know 'what is best' for its people (e.g. disease prevention, education, laws and regulations, as well as reduction of excessive metropolitanisation, etc.), and that it might have to court some unpopularity in the short run to reap popularity in the long run.

- 2)b. What is optimal (above) is likely to be influenced by choices about the trade-off between the rate of economic growth and the distribution of income, and between these in the short- and long-term

LDC governments range widely in their declared emphasis in these two respects; the experience of history, particularly within the memories of those still living, and the legacies of history, in terms of the way in which wealth and power, evident and potential, have a major influence on policy choices, all have a bearing. Generally speaking LDC governments have difficulty in exercising fine control over this

¹ As already observed however, the freedom of governments to act independently of exogenous influence will vary. Given the current global taste for national autonomy it behoves outsiders to maximise the degree of freedom allowed to LDC's - that is, within the bounds of international laws, which are designed to preserve the peace and minimise and eliminate deleterious global effects ('pollution', decline in common resources, etc.).

pair of partially conflicting, partially complementary objectives. Those who have gained wealth and power, often recently through opportunism and enterprise, are loath to relinquish them; political violence results, a greater or less redistribution occurs, and the process of excessive concentration tends to repeat itself. It has probably been insufficiently considered how far a degree of decentralisation of the urbanisation process would result in a slowing up in this politically volcanic process, and how far the advantages of that would be outweighed by such factors as the probable higher administrative costs and increased dangers of secession associated with decentralisation. Again, the calculation would undoubtedly differ between countries, taking into account especially country size, population density, communication development, racial and cultural homogeneity.

3) Economic progress depends on the full utilisation of the LDC's human resources, both physical and mental

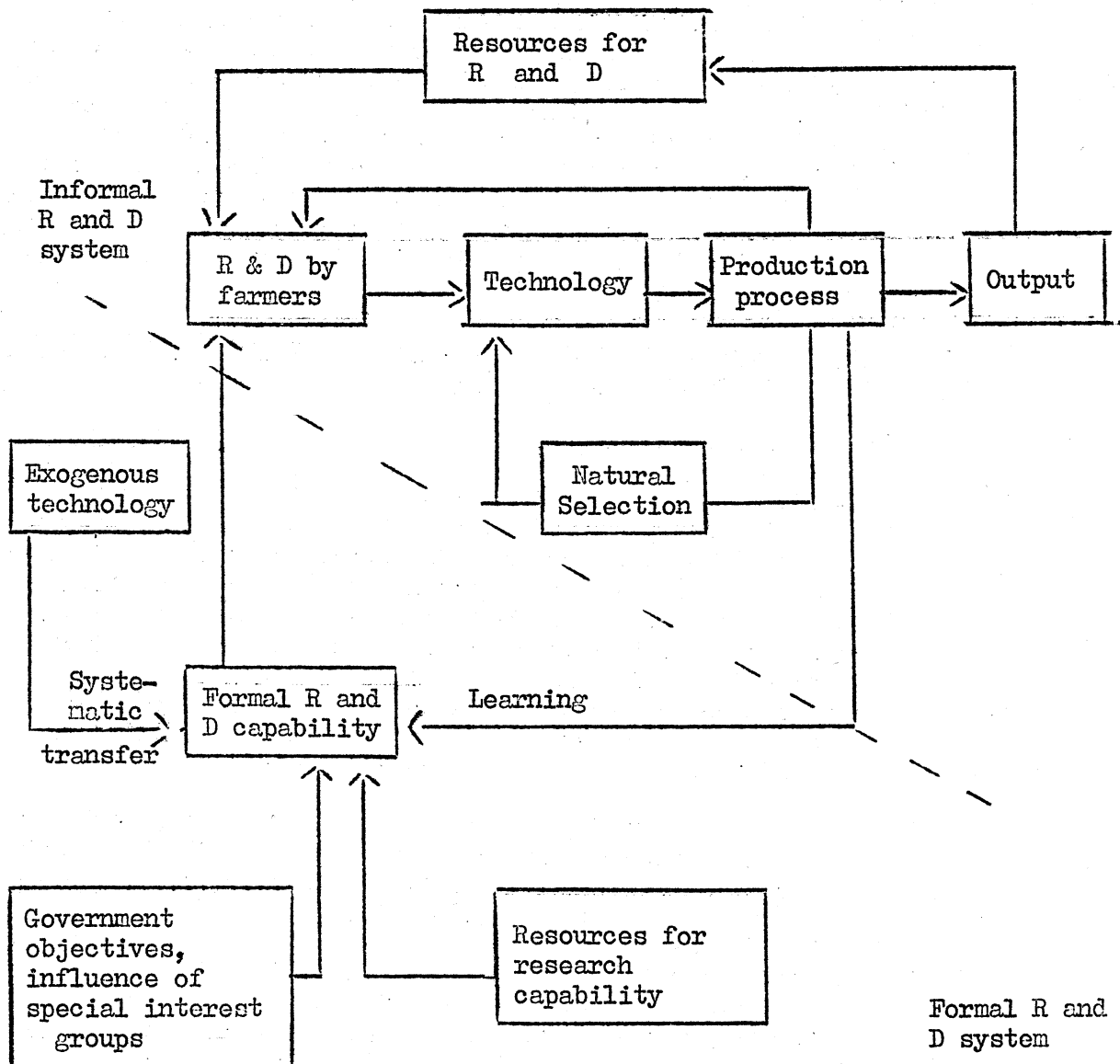
This is a short way of saying:

- i) that, where capital is scarce and expensive and labour has a low opportunity cost, it is likely to be to the social benefit to substitute labour for capital in production processes and capital formation. (It is an additional benefit that the widely distributed consumer-spending which results from increased employment will improve the human resources themselves; this is not only desirable in itself but an important consideration in the next production round because those receiving relatively low incomes have a high income elasticity of demand for food and basic services which are, or can be, themselves labour-intensive;
- ii) that the indigenous knowledge of untutored people, not least in rural matters in rural areas, represents a vast resource which will repay marshalling and selectively redeploying in conjunction with the introduction of new knowledge;
- iii) that scarce capital investment can be readily justified in the most cost-effective ways of improving human resources, e.g. spending of primary health care and education in such a way that an optimal flow of physical strength and a balanced range of skills are available for effective employment. It can be expected that a valuable spin-off would be reduced human costs in child-bearing and -raising and a benign long-term effect on population growth rate;

¹ It is however a disadvantage of competing with processed exports in the world market that capital-intensive processes sometimes given higher unit value; exotic labour-intensive cottage industry may be an exception to this.

² Biggs and Clay (1981) effectively make this point with particular reference to agricultural technology, and stress the need to incorporate the continuous generation of new knowledge by farmers' trial-and-error learning in the formal research-and-development which is carried out by those in the urban sector concerned with agricultural development. Their diagram (Figure 2) summarises.

Figure 2: A combined formal and informal agricultural R and D system



- iv) that investment in appropriate education involves not only the best use of teaching manpower long-term but also has an impact on the technology/management hierarchy at the 'best' points, with the filling of the space between the under- and over-educated;
- v) that anything other than short-term under- and unemployment constitutes a serious economic and social brake on the economy, as well as being personally debilitating and politically disturbing;
- vi) that institutional change, in terms both of institutional development of indigenous rural society and of the relation between rural society and 'urban' interests must be such as to improve the utilisation of talent.

3)a. Special care is required in the central development, or importation, of technology appropriate to the circumstances

'Full utilisation of human resources' (above) also implies:

- i) that researchers and agents of knowledge dissemination, whether public servants or private persons (like traders) will create the greater benefit if their findings and advice are such as to find ready acceptance among rural decision makers;
- ii) that this must be true in the long as well as short term, thus avoiding the danger of customer disenchantment, until a further technological step can be justifiably taken,

but

- iii) that the social benefits of technological change must be predicted by responsible planners well enough to avoid major adverse side-effects - like large-scale inequality of income and resource control, unemployment, environmental pollution, civil strife, etc.

B.II. SOME POLICY CHOICES

1. Discouraging Population Growth

Policy options in this field have been much discussed. They fall broadly into the two categories:

indirect - by which conditions are so changed that the net result is the discouragement of the desire for large families and an ability to exercise the choice;

direct - by which people are persuaded by logic or tangible incentive to have smaller families and instructed in the relevant techniques.

Growth rate has in recent years begun to fall, first in a number of small states such as Singapore, Mauritius, the Caribbean Islands, Taiwan, (as well as Mainland China), and latterly in a wide range of other states being monitored by UNFPA, including Catholic and Muslim states like Colombia and Pakistan. But it is not always possible to distinguish direct from indirect effects of policy. In any case they will often be mutually reinforcing. A high rate of migration to the cities, for instance, can be expected to be related to a tendency for marriage to be delayed and for a spread of knowledge about (and preparedness to use) contraceptive methods, both potent factors in reducing births.

It is perhaps worth drawing attention, on the one hand, to ill-judged programmes of direct population control, such as India's in 1975/76, and, on the other, to those socio-economic conditions which may be crucial in their indirect effects. Overall levels of living as measured by average GNP/head are less likely to be indicative of conditions propitious for a falling birth rate than the existence of widely available education and basic health services (to which education in family planning can be easily attached), and of an enlightened attitude to the status of women in the community, which will be marked by good education and increasing outside-the-home employment prospects for them.

2. Adjusting the Pace of Urbanisation

The emphasis of policy will vary between countries according to whether problems are arising from excessive speed or slowness to urbanise, though the worst of both worlds may obtain simultaneously if the urbanisation concerned is excessively focused on one or a few cities.

Excessive speed tends to be characterised by:

- 1) chaotic urban conditions of living,
- 2) too slow a development of traded agricultural surplus, and thus rapidly rising food prices, and maybe
- 3) rural hardship arising from an unbalanced rural labour force.

Slowness tends to be characterised by:

- 1) excessive population pressure on rural natural resources, which is likely to give rise to oppressive social stratification,
- 2) low levels of social provision (health, education, food security),
- 3) a lifeless socio-political condition, characterised by fatalism, factiousness, etc.

More specifically, four policy areas may be considered.

a) Modifying the terms of trade and factor prices

Policy options converge on modifying the terms of trade for country vis-a-vis town goods and in influencing land, labour and capital markets. Policy alternatives are seldom clear-cut however. For instance, the desirability of slowing up urbanisation may suggest encouraging agricultural production and farmers' incomes through (say) minimum guaranteed commodity prices. However, this policy may not only raise level of living among producers so discouraging migration (assuming no negative supply response); but it may further impoverish landless labourers who buy their own food, if their employment does not increase proportionately. In these circumstances guaranteed farm prices need accompanying policies for landless labourers (programmes of public works, land settlement, resource re-allocation) or food purchase policies to export the surpluses the proceeds of which might be further invested in rural services. But these policies may in time have their own complex side effects. Similarly, the speeding up of urbanisation may be achieved by encouraging, through land reform legislation, erstwhile landowners to invest in urban activity, but there it is important that the resulting urban activity be labour- rather than capital-intensive, so that both urban and rural employment can be increased at the same time. (Urban employment will be further reinforced by increased demand in the rural sector for goods of urban origin; this is obviously desirably in countries as different as Bangladesh and parts of Brazil).

Whether the desire is to retard or hasten the tendency to urbanisation, intelligent policies directed towards agriculture and the rural areas are likely to be required.

b) Achieving a better rural population balance

As already implies rural-urban migration is not uniform over sexes, classes, education groups. Manipulation of the urbanisation trend must take account of this. Social cohesion in the countryside is likely to be an asset worth preserving. Where male migration is dominant, effective policies might include one or a combination of i) stimuli for men to stay in the rural areas, which are thereby encouraged to become more productive, and ii) improvement of non-agricultural employment opportunities for women perhaps in villages and small towns. Where rural sexual imbalance persists, the need for new technology designed particularly to assist women becomes all the more urgent.

There are other cases where agriculture and the associated rural structure might be effectively developed by recognising the current lack of cohesion between the newly educated younger generation and rural work opportunities. There are implications here for institutional and technological innovation policies in the rural areas which would appeal to literate rural young people. For instance, existing farmers could be provided with more services through rural-based units or² centres manned by younger people (e.g. travelling irrigation pump sets, village input

¹ This might well be unwise in countries like Lesotho where wide-spread environmental damage and low land productivity have already resulted from rural over-population and communal resource exploitation; on the other hand the promotion of construction of fish ponds and biogas plants directly appeals to male labour and gives major nutrition and energy benefits.

² See Wood, G. (1980) ODI.

and grain stores). Whether via co-operatives, private firms, syndicates or government departments these services would usefully engage new technical, clerical and entrepreneurial/managerial skills. Such policies of course imply suitable associated programmes in training, health and housing a) to ensure the effectiveness of the first policy, and b) to re-inforce the attractiveness of rural vis-a-vis urban living.

c) Effective agricultural innovation

In spite of the complications remarked on in sections a) and b), it is inescapable that high rates of overall as well as rural population growth, together with something approaching an optimal rate of urbanisation, demand policies which are effective in stimulating agricultural production. In many LDC's, this is a crucial requirement, whether for food or raw materials, for home use or for export. This implies, in most LDC's, policies of regulation, facilitation, stimulation and even perhaps direct participation by government, which lead to improvement in all 'departments' of agricultural production and marketing. Those points have to be identified where marginal increments are likely to be greatest. If necessary, regional emphasis may have to change - from poor to better land, from remote sites to others with good market access. Better technology may have to be found and deployed. More effective institutions and organisation may have to be introduced in the light of¹ changing rural social conditions and rural-urban blends in personnel.

When choosing better technology and more effective institutions and organisation, care must be taken that the creation of a greater market surplus does not become an exploitative process in the biological sense. It has seemed relatively easy in recent years to compensate for the removal of surpluses, and the local effects of producing them, but the use of inputs of 'urban' origin - fertilisers, insecticides, etc. With the increasing relative price of fossil fuels this is probably now a simplistic solution to long-term agricultural development. Increasing input prices plus increasing population, not least in the rural areas themselves, are together causing increasing strain on the natural resource base. This is most dramatically seen in the rapid disappearance of biomass (ranging from soil organic matter to forest trees). This biomass represents a store of energy available to human society and its loss represents a run-down in 'natural capital'. Moreover its removal leads to further serious environmental effects inimical to agricultural production. Innovation in technology and institutions should, in the writer's view, therefore be concentrated much more on increasing the amount of flow, and efficiency of transfer through biological chains, of energy of solar origin. This principle applies at all levels of decision making, from the biological cycle on which the landless household subsists to that which underlies the whole land-use system of river catchment area (which may be of international dimensions). Broadly this is first a question of finding those points in

¹ Silvers and Crosson (1980) show how in Mexico, intensification of agriculture by irrigation and associated inputs has appreciably raised agricultural incomes, moderately slowed rural-urban migration but, more importantly, has caused a diversion of migration to local and regional centres rather than Mexico City. Their calculations suggest that there is still scope in rural areas not yet irrigated which might reduce the migration stream to Mexico City by a further 12-16%.

energy systems where improvements can most economically be made - whether this be the introduction (say) of a more efficient plant variety, an improved cooking stove or better harness for draught animals; second it is a matter of integrating such innovations through effective human institutions so that the benefits deriving will be optimally distributed, thus ensuring that they are enthusiastically sought, utilised and partly used for further development. As population grows more human co-operation will be required.

In their haste to bring about change, policy makers may favour massive intervention. The allegedly quick ways to marketable surpluses - state farms, bureaucratically controlled schemes and ruthlessly intruding multinational companies using shiny new technology, are probably best abjured however; there have been too many failures and too few people have benefitted even from technical successes. But a past failure does not necessarily mean the same will happen a second time. The best recipe is likely to be a modified method, learning from past mistakes and taking into account changed circumstances. For instance:

- 1) if a mechanised state farm has in the past failed to produce maize economically by continuous cropping in a savannah region, the answer is not necessarily to do nothing. It may perhaps be effectively replaced by a new organisation which takes care i) to maintain soil fertility, ii) to subdue weeds, iii) to produce a variety better suited to market demand, iv) to use a selection of types of labour and capital in such a way that those involved in management and work have a substantial incentive to co-operate and succeed, and v) to fit the whole enterprise snugly into the overall natural and social context of its location;
- 2) if a private (or public) plantation is criticised for extracting too much rural surplus and for polarising the social structure as between urban managerial and lowly paid rural workers, remedies to modify these weaknesses may be found rather than elimination of the offending institution altogether. For instance, it may be feasible to attach out-growers to the existing sophisticated nucleus; or, if the plantation is very large, it may be desirable to introduce a measure of decentralisation in the management and at the same time to modify the terms of employment of the work force - by raising wage levels, introducing incentive schemes, improving domestic services, etc.

In short, while there is likely to be no quick, enduring and economic way to increase the production surplus, there may be very many facets of a given situation which, with improved knowledge and the urgency generated by increased demand, can be simultaneously tackled so as to raise the productivity of natural resources to the benefit of a large body of people, both producers and consumers.

It is worthwhile emphasising however, that it may often be preferable to 'improve' than 'transform'. If the choice is between improving existing small-farm systems and replacing them with a radically new organisation the overall net benefit to society may be best served by a sequence of rela-

tively small changes rather than one large one.¹

Institutional change, generally speaking, is much more difficult than technical change, though the latter may impinge on the former; we should still be looking for technology suitable to a relatively slow process of institutional change, bearing in mind both the conservatism of people in their socio-economic relations and that, particularly in the poorest countries, the number of people requiring employment in the countryside will continue to increase in the foreseeable future. It is likely that a better understanding of the how-and-why of local current practices will suggest the best ways of proceeding, or at least, the likely faults of newly introduced technology. Thus, for instance, improved co-operation within rural communities is likely to be achieved more effectively by a sequence of innovations chosen pragmatically rather than by the imposition of some sophisticated blue-print that has exotic origins.

To refer back to the Introduction then:

1. 'self-reliance' may be an important objective of policy in areas beyond the limits of market access, but within those limits, ways have to be found of encouraging dynamic farming systems producing surpluses, the benefits of which are justly shared;
2. 'participation' of the local people in their own development is greatly to be desired so as to strengthen their effectiveness and level of living, but very often in the context of a wider developing society. While oppression of the rural poor by urban intrusion must be avoided, ultra-slow growth, if indigenous forces are entirely relied on, carries its own dangers - namely, that economic growth will never outstrip population growth, the benefits of effective new technology may be missed, and the local society will eventually disintegrate in frustration.

¹ This is extremely difficult to prove because proof requires 1) identical situations subject to contrasting development processes, and 2) unequivocal methods of assessing net benefits. The first never happens exactly; the second requires assessment in terms not only of the evaluation of tangible benefits like income but also a) judgements about the longer-term material effects of different patterns of income distribution, and b) value judgements about such matters as the human satisfactions (or worries) arising from a concentration or dispersion of managerial responsibility. One can of course quote examples of where large-scale attempts to 'transform' rural communities have 'gone wrong', even to the extent that radical damage has been done to the local natural environment as well as major wastage of exogenous capital investment and associated effort; and elsewhere it can be shown that small-scale decision making, intelligently encouraged and backed-up, has been successful. Cases of reasonably close comparison fully documented seem however to be scarce. There are of course some situations where 'transformation' by a large technological-cum-institutional leap is inevitable if change is to take place at all - as with the introduction of irrigation from a large water source in an arid region, or with the introduction of cultivation by heavy machinery of very heavy soils which hitherto were not cultivable by human or animal power.

² But see Section B.IV for the difficulties inherent in this type of development.

While self-reliance and participation are much to be encouraged, therefore, the effective melding, through two-way education, of urban and indigenous rural energies and expertise is the best guarantee for a buoyant agriculture and associated rural activities, and a rising level of living.

d) Rural industrialisation

Diversion of future growth of non-agricultural activity away from cities has a strong appeal where part-time and part-family labour can be usefully employed. Family incomes thus come from more diverse sources at the same time as pressure on the cities is reduced. Certain industries/services and certain rural conditions are likely to be conducive to rural industrialisation. First, the industries/services have to lend themselves to labour-intensive methods, using existing or rather easily introduced skills. Second, a fairly dense population has the advantages of a) providing a potential market, b) providing full or part-time labour, c) forming a supplementary justification for the distribution of electric power suitable for industrial, home and 'farmyard' use. These factors would be conducive to the siting of plant for processing rural materials - grains, fruits, milk, fibres, wood, etc. Low capital intensity, small firms, local trade are likely to be accompanying characteristics. Both China and Taiwan have been conspicuously successful at disseminating quite large-scale industrial activities through their rural areas.

3. Modifying the Pattern of Urban Development

Many of the suggestions included under section 2 above could almost equally well be included here. Policies labelled Integrated Rural Development or Rural Industrialisation, if effective, can be expected to have the twin effects of reducing large-city chaos and stimulating rural levels of living. Such policies are constantly advocated by economic and geographical planners, but, except in countries with a long history and a hierarchy of urban centres (like China), encouragement of such a pattern is often not easy. Some reasons why this may be so are:-

- i) the urban orientation of the élite and expatriate experts who devise and advise on policy;
- ii) programmes of rural commodity production focused on supplying metropolitan and export markets, thereby favouring concentration of capital and personnel (to whom government may pay special cost-of-living subsidies!) in central markets;
- iii) the unattractiveness of the small rural centre first to the rural migrant in an age where technology makes work and consumption in the city seem more attractive, and second to members of the urban élite who feel themselves to be isolated from the centre and their chances of promotion to be prejudiced.

¹ Stabrawa (1980) has made a useful critical review of the relevant literature.

² Though recent world economic trends may adversely affect the MNC financed component-building factories of Taiwan, and China's interest in rapid industrialisation may spell the end of its conscious decentralisation policy.

³ As seen by India's indifferent success at encouraging small-scale industry.

As public and private sector interests reach 'down' increasingly to the countryside and the country people themselves organise 'upward' the problem of forming medium-sized communities might tend to solve itself. But clear policies can help. Many countries (such as Sudan, Zambia, Kenya) have long had district-level development programmes under scrutiny or already begun. Much has been written about their advantages but there is still a need for much more detailed thought before better policies can be advocated. While there are some obvious policy moves a determined government could make (like subsidising provincial rather than metropolitan posts, as is already done for irrigation personnel in some remote stations), satisfactory results are likely to be achieved only by the convergence of policies - for instance to supply high quality drinking water, locale-specific skills training, encouragement to entrepreneurs for the provincial and district siting of industry, etc. There have been some glaring cases of failure where the effort has not been sufficiently many-sided, for instance in Sudan.

Although 'diffuse urbanisation' has already been reported as under way in some Regions, positive government policies under-pinned by intelligent planning and adequate research-and-development would appear to be necessary and desirable in many countries.

4. Eliminating Poverty

If the principles set out in Section B.I are to be achieved, conscious policies directed at the elimination of poverty are required. It has already been argued that too great a skewness in income distribution is, not only inhumane but, from the point of view of society as a whole, less-than-optimal in terms of economic growth. Incidentally, to the extent that the income elasticity of demand among poor people is high for food and fibre, eliminating poverty implies a strong effect on agricultural production. Thus, the pursuit of less unequal incomes is, at least over a certain range, complementary to, rather than competitive with, economic growth, and therefore an integral part of economic (and rural) development and the provision of greater total income.

The earlier sections of this essay have alluded to population growth, varying pressure of population on natural resources, social stratification and the polarisation of wealth. All these trends have, particularly since the early 70's, led to a preoccupation among international and national policy makers with the problems of poverty; indeed since the lead given by the World Bank, rural development policies have tended chiefly to focus on poverty eradication, though real enthusiasm varies within the international agencies (e.g. FAO has been less constructive than IBRD and ILO), bilateral donors (some of whom have adopted an 'aid to the poorest' stance) and LDC governments. It is perhaps not too cynical to say that the concern with poverty of the last has increased as the proportion of the poor living in cities has increased and become a political problem.

¹The literature divides into those like Hunter, Bunting, Bottrall (1976) who see the small town as a stimulus to the surrounding countryside and those like Southall (1979) who see small towns as the outposts of urban oppression of the countryside.

Policy discussion has focused on i) defining poverty, ii) identifying target groups, and iii) suggesting remedies. Poverty can be defined in absolute or relative terms. While the degree of absolute poverty is predictably greatest in, though not confined to, the poorest countries, relative poverty is more widely spread, though not absent from the poorest countries. Identifying target groups and suggesting policies to improve their condition have presented major problems. Suggestions have fallen into two main categories:

- a) reform; that is reallocation of control of resources, particularly land and capital, within society,
- b) special programmes to alleviate suffering - in health, hygiene, nutrition or the stimulation of production.

Insofar as reform involves an absolute or relative reduction in socio-economic status of the already powerful members of society this has invariably proved a difficult and hazardous course for governments to follow. Special programmes also suffer from difficulties first in the identification of the target groups; second in the design of effective programmes (e.g. cheap food programmes and cheap credit for small farmers seldom reach those for whom they are intended); and third in their cost, particularly in those poor countries where the majority of the population are eligible for aid.

It must be hoped that policies grouped under Sections 1, 2 and 3 above will have the indirect effect of reducing poverty. It is important that other more direct measures, while urgent and desirable, should not detract from overall growth, particularly among the LDC's.

Policy choice is thus likely to be rather more complicated than generally imagined. First it is necessary to consider both the rural and urban poor. For instance, while many of the former rely on the purchase of necessities of rural origin, all the latter do. Second, in both sectors, specification of the poor in terms of consumption and asset control, is required. And within the rural sector itself it may be useful to distinguish between those beyond urban market influence as against those within urban hinterlands, and between those in relatively infertile as compared with fertile areas.

'Basic needs' policies must seek not only to ensure the availability of food and other necessities but also to ensure that the poor have assets with which either to produce them or buy them. In the latter case it may be as important to encourage non-agricultural activities (thus creating exchangeable goods and services and purchasing power) as to pursue increased agricultural production directly.

B.III. THE ROLE OF THE BUREAUCRACY IN THE CHANGE PROCESS

The choice of enlightened policies by national politicians requires a competent supporting bureaucracy. The growth of the bureaucracy is inseparable from the growth of the nation state. It is also entirely an urban phenomenon in that it is controlled from the capital city, in nearly all cases a major metropolis, and that its members are urban in education, experience and, in general, in sympathy. It is true that the proportion of national resources within the public sector in LDC's may be less than in IC's. Nevertheless, in terms both of its consumption of goods and services and of the power it deploys, the bureaucracy in the former is almost always a rapidly growing force. Its influence over rural areas is rapidly extending, encouraged in this by external influences concerned in trade and 'aid'. As already observed (in Section A.III.3) the interface between rural people and their indigenous institutions on the one hand and urban interests, particularly the bureaucracy on the other hand, is of crucial importance in the process of rural change.

The bureaucracy is composed of a great diversity of personnel, including administrators, ranging from senior officials to junior clerical staff, professionals appropriate to a variety of departments, and other cadres like co-operative officers and public enterprise managers who are in continuous contact with rural people in an organising, advisory or supervisory capacity. The gap between the bureaucracy and the people and their leaders is generally clear. It depends upon differences in education, in source, level and security of income, and also in fundamental interest. While it may be concerned with overall prosperity and stability of the state, the bureaucracy is particularly concerned with maintaining and, where appropriate, expanding its own structure. Its rationale is that it can 'modernise', that the rural people are by and large ignorant and conservative, and (often) that it is preferable to 'transform' rather than to 'improve' rural activities and institutions by direct intervention.

Many of the 'alarums and excursions' at national level arise from the mistakes and inadequacies of the bureaucracy; and the frequent slowness of rural society to adjust to changing circumstance can be often attributed to the failure of crucial elements of the bureaucracy to understand and allow for the behaviour of rural people.

But LDC bureaucracies face great difficulties. By nature tending toward rigidity (having been patterned on the slowly changing respected bureaucracies of the IC's, often their former imperial overlords), they exist in circumstances requiring both strength and flexibility. Successful economic development in LDC's requires highly intelligent management of natural and human resources. Yet their bureaucracies are first badly served in their education underpinning, second weak in the financial resources they are able to mobilise, third in a weak bargaining position vis-a-vis their opposite numbers in the IC's to which, through the international political apparatus, they are linked, and fourth subject to chronic internal instability arising from a high casualty rate at the top (due to early retirement, migration to foreign or international posts and movement to the private sector or politics), and therefore excessively rapid internal promotion.

- The resulting weaknesses of LDC bureaucracies are therefore that
- 1) their programmes and projects tend to be ambitious but ill-planned and vulnerable to unpredictable change,
 - 2) their internal structure is unsuited to current conditions - either excessively large and costly (for instance Nepal) or inadequate for the tasks required to be done, (for instance Zaire),
 - 3) in their attempts to react to, or to stimulate, change internal stresses are created, either 'vertically' within, or horizontally between, departments, or between departments and parastatal bodies,
 - 4) some of their members fail to maintain a discreet distance between themselves and politicians and, linked to this, fail to maintain a posture 'above the struggle', exposing themselves to corruption and influence vis-a-vis the public.

Consequently, while there are many individuals within LDC bureaucracies who are capable of forming effective bridges with rural people and who are completely dedicated to the task, in spite of the difficulties, nevertheless, too often, bureaucratic efforts are inefficient and, at worst, prompted chiefly by self-interest.

As already implied, the influence exerted exogenously tends, whether consciously or unwittingly, to reinforce bureaucratic instability. The metropolitan values of the international middle class, the superior bargaining power and 'superior' style of their opposite numbers in IC's place strain on the internal strength of the LDC bureaucracy. But, perhaps the greater difficulties occur at the interface with the public, not least in the rural sector. Here the bureaucratic attitude is typically either patronising or arrogant. Thus Agricultural Development Banks are avoided by customers in part because the staff are unsympathetic or uninterested in all except the wealthy and influential farmer; government supplies and services are not taken up because their record is one of inefficiency and untimeliness; health and education services, though eagerly sought, are inaccessible or excessively costly to the mass of the people.

A major part of policy toward rural change must therefore be the improvement in the effectiveness of the LDC bureaucracy. Examples of some of the changes required include

- 1) fair and efficient distribution of government services, as for instance by public utilities like large irrigation schemes,
- 2) encouragement in the self-organisation of co-operative action rather than the arbitrary superimposition of forms and rules unfamiliar to the beneficiaries,
- 3) deployment, in the rural areas, of appropriately trained personnel who, because of incentives, are happy to work there; who, because they know the local language, are welcome and able to communicate;
- 4) the formation of 'nodes' at suitable levels in the hierarchy at which effective coordination of Departments can be achieved and a measure of devolution of choice about the deployment of funds for public services can be focused.

Above all perhaps it is essential that the bureaucracy should be thoroughly apprised of the nature and importance of rural development, of the necessity of maximal internal integration of departments concerned, and of the need to harness fully the talents of the people. Once awareness has been established, the task becomes more one of management

than of administration; management that ideally stretches unbroken from the Centre to the individual decision makers at the primary activity level. Management involves a continuous process of decision-making depending on continuous monitoring of changing circumstances and evaluation of the effects of past decisions; communication upwards as well as downwards; and clear-cut allocation of responsibilities at all levels. Because the hierarchy which we are here visualising stretches so far, 'man-(and woman-) management' becomes crucially important. Man-management involves first the understanding of the interests, abilities and attitudes of those 'lower down' the hierarchy, and second, the continuous search for compromises which will achieve ready co-operation and a rate of institutional change consistent with the changing needs of total society and acceptable by the most conservative. However, it is unrealistic to expect that change will always be smooth and without convulsions; the pressures currently being experienced in LDC's are too great.

It would also be unrealistic to assume that continued bureaucratic growth can eventually reach the stage where all resources and people are productively and happily integrated for the maximum good of the national society. As part of the central structure its interest in, and its impact on, the periphery will always be weak though, with time, its power may be extended. If our earlier kind of analysis is useful we can visualise:

- 1) a geographical area and a range of activities where the bureaucracy can expect or claim to have a cost-effective role - that is to say, an 'arena' in which the taxpayers (or those non-bureaucrats who influence the deployment of taxes) can be convinced that bureaucratic action is worth the cost,
- 2) a geographical area and/or range of activities where only non-government bodies are prepared to operate,
- 3) a geographic area and /or range of activities where so far formal organisation is not considered necessary or feasible.

Section B.IV deals with the second and third of these categories.

B.IV. NON-GOVERNMENT ORGANISATIONS (NGO'S) AND BEYOND

Governments, by their nature, especially but not only in LDC's, are incapable of providing all the stimulus to change which will bring benefit to all members of society. NGO's naturally emerge in response to social needs, depending on either local initiative, the voluntary goodwill and personal resources of certain citizens, the assistance of extra-territorial NGO's, (see Table 8), or some combination of all three. The common feature of all NGO's is that they come into being to advance the interests of a limited, fairly clearly identified, disadvantaged group or class. In all other respects they vary:

- .they may have a religious or secular background;
- .they may involve only men, women, children, or all three;
- .their objectives cover a wide range from providing clean water to teaching family planning, from distributing seed to encouraging the introduction of oxen or small machines; they may be concerned with creating and promoting awareness of citizens' rights, producing crafted items for sale, creating fixed capital (like meeting houses, terracing, irrigation systems) for group benefit;
- .they may be organised democratically or paternalistically;
- .they may be encouraged, ignored or opposed by vested interests and government.

They operate in the interstices of, and beyond, the officially recognised structures and networks, following policies designed to satisfy specific needs, with a minimum of bureaucratic superstructure. Their small overheads, deriving from a high proportion of voluntary labour, mean that their criteria in terms of returns to capital investment or cost-effectiveness can be more modest. It is in precisely those additional projects and programmes where, for a government department, marginal costs might rise above marginal returns, that NGO's are likely to have a role.

Their value to the broader society however is larger than that, providing as they do an opportunity for people of goodwill to operate outside the self-interest economy, displaying enthusiasm which may be inspiring or shaming to others, and transfer resources from rich to poor for which official channels may be ill-adapted.

The greater flexibility within the stream of total NGO activity gives them a number of opportunities denied to government departments.

First, they should be able to achieve a close adjustment to changing circumstances. Thus they can respond within and between LDC's according to needs related to uncertainty arising from unpredictable rainfall or war, in ways ranging from direct disaster relief to recovery programmes incorporating seeds, tools and replacement capital in addition to tiding-over supplies. They can also react flexibly to the behaviour of the recipients to aid, reinforcing the promising, altering tack in the case of failure; in short, adopting a 'learning approach' (Korten, 1980).

Second, they are in the position to be able to string together a series of project components on a small scale which if attempted by a bureaucracy would entail co-ordination across departmental boundaries and the devolution of control to a far greater extent than those at the centre are able

and willing to allow. For instance, to the extent that progress among recipients depends on the building up of confidence, it can be important at the outset that the NGO should introduce one or a few innovations which from the recipients' point of view are cheap, quick-acting, small in risk, clear-cut and substantial in their benefits, and the cause of little or no disturbance to social and cultural norms. Once having created confidence and perhaps a little surplus cash or human energy, rather more ambitious innovations can be tried. One such sequence of proven success is to start by dispensing a reliable disease cure such as antibiotics and rehydration, to follow this with hygiene and nutrition improvement and eventually with horticultural and agricultural change; a sequence that can ideally be centred on a health clinic where the baby, then the mother, then the family as a whole are the beneficiaries. Within agriculture itself it is desirable to proceed (say) from introducing a new high-yielding annual to crop-intensification by irrigation, to the use of high value irrigated perennials, rather than vice-versa.

Third, it is the NGO's which are best in the position to initiate group participation and promote 'conscientisation' among communities or 'target groups' with very few resources; that is to say, among the increasing number of refugees and rural landless (as well as urban destitute) who have either lost their access to scarce resources or were born into penury.

Of course, the NGO's face many difficulties:

- 1) they may lack professionalism in management; resources may be wasted by failure to plan wisely, record and monitor carefully, and to evaluate after the event. There is indeed likely to be a trade-off between the high costs of scattering small sums of aid extending over short periods of time designed to achieve maximum stimulus to change, and the lesser costs of concentrating more resources for a longer time on fewer groups. In the former case management costs (and the nature of the projects themselves) may be such that it is very difficult to judge the long-term benefits of the aid. In the latter case the dangers are rather of establishing dependence on a paternalistic donor together with assistance eventually, if not initially, to some people who do not need it;
- 2) the NGO's commonly lack an adequate range of technical expertise on the full range of rural development, a weakness not alleviated by the dearth of good research-and-development in state- and internationally-funded stations which is directed towards solving the problems of the poor. How this need can be met, whether within or outside the NGO's themselves, is still largely unresolved;
- 3) many NGO's face an inescapable dilemma. There may be a conflict between helping the poorest sections of the community and stimulating economic growth. The dilemma arises when the next tranche can be spent either on a community for which a little help means the difference between long-term viability and non-viability (including perhaps gains for a few community members who are already quite secure), or in groups of wholly destitute people, including the mentally or physically handicapped, who will always need recurring assistance.

There is no prospect that the NGO's will ever eliminate real poverty in the LDC's; it is even doubtful how far the combination of government policies and NGO aid can keep its growth in check. The combination of

- . the tendency for competitive systems to squeeze out the unlucky and the inept,
- . limitation (by definition) of the poor largely to access to those resources not yet priced - air, and drinking water and biomass to a declining extent,
- . a running down of natural resources which are communally held to which the poor have access but for the maintenance of which no-one has responsibility,
- . a high propensity among the poor to produce large families,

ensure that poverty will grow at both the extensive and intensive margins.

Finally, therefore, beyond the boundaries of those resources and people that are integrated into effective production/consumption systems are residual natural resources which are dwindling as more are exploited, and an increasing number of people who are only in the loosest sense members of organised society. There are two dimensions to the 'frontier': first, the inaccessible mostly infertile areas where rapid depletion of biomass by expanding communities is occurring, and second, those people within settled areas (including cities) who have become disenfranchised and bereft of access to all resources except those which, like grazing, fuel wood and water, are communally held.

Rapidly dwindling resources and increasing numbers of destitute people present a major challenge to organised society, though the problems arising can be easily ignored. Solutions must be quickly sought both as a corrective to poverty and to prevent further deterioration of the resource base; but they will be difficult to find. Commonly in the past, private appropriation of resources increasingly scarce has resulted in economising practices. Where this has not occurred the 'tragedy of the commons' is the first outcome - communal usage prompts no conservation or attempt at improvement. Moreover, where the users are the residual poor there are no funds that can be pooled to provide the capital required to conserve or replace the stock. And it is only rich economies which can afford to take public action to preserve resources and raise virtually all above a declared poverty line.

The full scale of these problems is taking a long time to gain recognition and understanding. There seem to be a number of possible lines of action which might contribute to an alleviation of the rapidly growing crisis:

First, improved technology may raise use-efficiency of the resources available, or new ways may be found of replacing them. In the case of dwindling fuelwood for example, improved cooking stoves and replanting with quick-growing spp are being developed; but the capital and the incentive to innovate are, by definition, missing.

Second, 'fringe' resources and people may be locally incorporated into community development plans, given acceptable institutional innovations and a source of capital; aid for the latter might be linked with an insistence that a solution must be found for the former; international assistance might be a sine qua non where more than one country share common natural resources - as for instance in a large water catchment like the Ganges-Brahmaputra.

Third, comprehensive national reform on the scale achieved, no doubt at some degree of private cost, by the Chinese after 1949, might be possible in some cases.

Human ingenuity has not yet really grappled with this 'frontier', LDC governments, though some may recognise the dangers, are seldom strong enough to act comprehensively; NGO's are deficient in resources (capital, technology, management). It may be that, at the crucial international level, the understanding and will to act have yet to grow. In the meantime, the problem of too many people chasing too few resources will escalate alarmingly.

C. CONCLUDING REMARKS

This exploratory essay leaves at least two questions unasked:

FIRST: Ignorance at many points (at least of the writer) of situations, trends and mechanisms prompts us to ask "what are the things we need to know so as to understand better the dynamics of rural-urban change and to devise ways of modifying the change process for the social good"?

A number of disciplines could be affected in their research priorities; and new connections between disciplines might turn out to be increasingly important.

Examples of topics requiring further research:

- a) the measurement of change - there is a need for continuous search for accountancy methods of socio-economic status and change; these should be less metropolitan in orientation and should more clearly reflect the conditions and levels of living of all the people; they should take more account for instance of variables such as health and nutrition;
- b) the mechanics of the rural change process - quite a lot is already known about income differentiation following the Green Revolution; and about why people migrate, though Lipton (1980) argues effectively for more parallel studies, embracing both sending and receiving areas, where migration streams are large and small; but much more monitoring and evaluation of development programmes and projects are required so as to establish long-term outcomes of different policies, including multiplier and demonstration effects (not only how big the benefits are but who benefits); and much more attention needs to be focused on the rural 'proletarianisation' process, to establish whether it is feasible to reverse it, slow it down, or mitigate its effects through the actions of either government or NGO's;
- c) individual, family and small-group behaviour - we know too little about why some 'prosper' and some 'fail' (in our terms and in theirs); in particular too little is known about the mechanism of poverty in its physiological, psychological and sociological aspects;
- d) rural development and reasons for the persistence and growth of the rural-urban 'gap' - we need to examine more carefully the forces which intensify it: the nature of education programmes, the structure and conduct of government and private-sector organisation with urban origins and rural interests, the effects of intrusive overseas interests, commercially, socially and politically;
- e) new technology, institutions and spatial distribution of people - we need to know more about the social costs and benefits of the alternative siting of different sizes and numbers of crop stores, grain mills, oil presses, tractor-hire centres, and what is the cost-effectiveness of different kinds and densities of utilities like drinking-water points, teaching courses for men and women, health-and-hygiene clinics etc.

The list of themes requiring investigation is very long. It also ranges in scale from case studies of individuals and families to inter-country comparisons. Probably all studies need to be dynamically oriented; yet methods must be found to achieve useful results quickly and translate them into constructive action. Quick, though reliable diagnostic techniques preceding action research would seem to have an important place, though some investigation must necessarily be rather long and painstaking. Nevertheless, the technologist as well as the social scientist is here dealing with a rapidly changing scene; research findings laboriously assembled can quickly prove out-dated by the inexorable march of events.

SECOND: The line of argument followed has led to advocacy of a set of policies encouraging the bridging of the gap between agricultural and metropolitan polarisation; this involves particularly the modification and expansion of farming, the growth of market towns and the fashioning of institutions which improve the relations between rural and urban people, as well as the search for ways of ending human poverty and natural resource depletion. Is all this normally included under the subject called 'Rural Development'? This may seem a trivial semantic point. On the other hand, how we choose to interpret the concept has considerable significance for how the established academic disciplines are taught and what is included in their curricula. In turn, the structuring of careers and requisite qualifications of those involved in all the niches of LDC society caught up in this process of change, from those just becoming literate at one end of the scale to those developing sophisticated skills at the other, are likely to be affected by this changing perspective.

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