Mechanisms of Socio-Economic Change in Rural Areas of Developing Countries: An Overview

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This paper is an introduction to the Development Studies Conference and an overview of the four main topics that were the focus of conference discussion. A survey of the evolution of development thought serves to introduce the presentation of nine hypotheses. The latter provide a framework for comment upon the four conference themes: household and village economy; the economics of institutional change; the economics of new technology adaptation and adoption; and overall planning and the economics of human resource and infrastructure development. Not unexpectedly, the chief conclusion is that there is no magic formula for development.

1. Introduction

The motivation to hold the Conference at which the following papers were presented was the perceived need to review current knowledge about the mechanisms of socio-economic change in rural areas of developing countries. Such a review should inform policy makers in developing countries and aid agencies (particularly in Australia) of the latest findings relevant to their work. It should also identify the current location of the intellectual frontier, in order to guide academic researchers to the important unresolved puzzles.

This overview has its origins in a paper prepared by Brian Hardaker as an introduction to the Conference[1]. The present version is more of a hybrid. Material from that original paper is integrated with Frank Jarrett's concluding remarks at the Conference, and also with ideas gleaned from Conference discussion. Sources of the latter are acknowledged when possible. In its current reincarnation, the paper is intended both to introduce the papers that follow and to highlight features of the debate about the four main themes discussed.

In what follows, a number of hypotheses are set up to provide a framework around which points of discussion are structured. The issues at stake are complex and obviously cannot be treated with depth or breadth in this introductory review. Rather, some key issues are broached as a means of setting the scene for the more detailed treatment in later papers.

2. The Need for Rural Development

The need for rural development is well understood. The demand for food in developing countries is expected to double by the year 2025 (TAC/CGIAR 1991). Income growth and urbanisation will have important influences on the pattern of demand, with a shift to higher value items, particularly animal products, generally meaning a much increased indirect demand for grains. However, the main cause of the expansion in demand for food will be population growth: the United Nations medium projection estimates are for an increase in numbers in developing countries from 3.6 billion in 1985 to 7.0 billion by 2025 (United Nations 1988). The population of sub-Saharan Africa is expected to triple by that year.

Feeding the increased number of people, providing

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for their basic needs and satisfying the demand for changed diets is challenge enough. Yet these aggregate estimates hide the problems of poverty that must also be tackled. Frequent exposures to scenes of famine and suffering on television seem to have inured many in developed countries to the world's horrific problems of malnutrition and poverty. The World Bank (1990) has estimated that about a third of the population of developing countries - some 1.1 billion people - live in poverty. Most of these poor live in rural areas.

As Hewson pointed out at the Conference, high priority must be given to matching the needs of the growing numbers of poor with the available resources so that people can not only survive, but also have the capacity to make choices about their future. Rural poverty is all too often linked to poor resources at the disposal of people living there. It is worrying that the lands available to the bulk of the rural poor are of low quality and have high environmental hazard. Many of these areas will not support a growing population based on agricultural production alone, and alternative solutions are needed, whether based on other forms of development *in situ*, or on relocation of people. The urgent need to slow population growth is most apparent in such areas.

While the problems of feeding the world and simultaneously reducing poverty are severe enough, in nearly every developing country the rural sector must also serve as the main engine of overall growth and development (Mellor 1986). The case rests on the large size of the sector in most countries and on the capacity and need for the sector to contribute to production, employment, savings and demand. Expansion of rural production means higher rural incomes coupled with lower food prices. The rest of the economy can then advance, fed on the increased demand for labour-intensive products by the booming rural sector, without unsustainable upward pressure on real wages. A thriving rural sector can earn and/or save vital foreign exchange, and progressively release labour and capital needed for the development of other sectors.

As well as the need for rural development, the means of achieving it are also well understood, at least in principle. Transformation of rural economies requires a sustained upward shift in the production function. The uptake of improved production methods by rural producers requires that suitable technologies are available, and that the producers' terms of trade are sufficiently attractive to stimulate adoption, leading to increased real incomes. That means institutional reform and massive improvements in rural infrastructure. However, the reality is not so simple: constraints on implementing these prescriptions come from lack of resources, chiefly capital, from human and institutional weaknesses, and from urban bias.

In the remainder of this paper some of the issues related to the transformation of rural areas are broached. But first, a backward glance is needed.

3. Evolving Understanding of Development Issues

This is not the place to attempt even a moderately comprehensive review of the evolution of thinking about development. Nevertheless, in seeking to identify what we think we know and what major puzzles remain, we need to put the evolution of ideas about development in some perspective.

Drawing particularly on Killick (1986), Kuhnen (1987) and Singer (1989), five phases can be identified in the evolution of development thinking. In the first phase, about 1945 to 1960, the focus was on rapid economic growth. The period was one of global expansion of production and trade. Underdevelopment was seen as attributable chiefly to shortages of physical capital (although later in the period the role of human capital was also recognised). Relief of poverty was seen as coming either from 'trickle down' effects, or else it was believed that increased income inequality was the unavoidable price of growth. Emphasis was placed on planned industrialisation, with agriculture providing the 'cannon fodder' of industrialisation by way of surplus labour and as a market for industrial goods. Efforts to get agriculture moving were mainly through 'community development', although naive attempts at transfer of agricultural technology also began.

From 1960 to 1970, the first development decade, interdependencies between agricultural and industrial growth began to be recognised. Johnston and Mellor (1961) suggested that agriculture should serve as the moving force in the process of economic growth. Schultz (1964) advanced his influential 'poor but efficient' hypothesis about traditional agriculture, with its implication that investments were needed in agricultural research, education and training. His view appeared soon vindicated by the start of the 'Green Revolution', the very success of which led to concerns about inequities in the distribution of benefits.

In the second development decade, from 1970 to 1980, growth began to falter in the industrial countries. The event that most disrupted steady growth of the global economy was the first assertion of oil power by OPEC in 1973/74, followed by a second assertion in 1979/80. However, the implications for growth in the developing countries were generally not serious in this decade; the income gap between rich and poor countries narrowed slightly, although the problem of declining incomes per head in sub-Saharan Africa emerged.

The decade began with major concerns about distribution. Seers (1970) emphasised relief of poverty, a focus taken up in McNamara's famous address (1973), that led to the notion of 'redistribution with growth' (Chenery *et al.* 1974). 'Basic needs' fulfilment became briefly popular, often linked with 'integrated' rural development. Both ideas, however, soon waned when it was realised that meeting basic needs through development of social services without economic growth was not sustainable, and that institutional impediments to integrated rural development were generally insurmountable.

A new 'employment-oriented strategy' became fashionable, following the publication of the influential Harris-Todaro model of rural-urban migration (Harris and Todaro 1970). 'Appropriate' technologies were sought, meaning employment-intensive ones, and small became beautiful, especially in agriculture. Employment-related human capital aspects such as skills, training and health were given more weight relative to physical capital. Although the strategy has some obvious limitations, such as the inability to help those poverty groups unable to find employment, it remains influential today.

In the decade from 1980 to 1990 development generally continued in Asia but went into reverse in the rest of the developing world, notably sub-Saharan Africa. The 1980s opened with a strong recession, brought on by the second oil crisis, and fuelled by demands from lenders in the developed countries for the developing nations to repay their debts.

The decade brought some fragmentation of views about development and growing bitterness and disappointment. On one hand, 'alternative' groups (including environmentalists and feminists) found serious fault with the conventional notions of development and growth. Sustainability concerns began to loom large, and the merits of 'development from below' were canvassed. There was disillusionment with the capacity of official agencies to promote real development, and increased interest in the role of community-level NGOs (non-government organisations).

At the other end of the spectrum, the move to the political right in the main developed countries was associated with a renaissance of neo-classical economics. The principal aid donors sought, directly or through the international agencies, to impose economic reforms on the developing countries, particularly those with debt problems. In agriculture, as in other sectors, more reliance was placed on market prices to allocate resources and incomes, government intervention was reduced and many government activities were privatised.

As Hewson pointed out during Conference discussion, in the 1990s the vital role of women in most facets of rural life began to receive more recognition. Gender-related inequities were more widely perceived, and the contributions that women can make to rural development came to be better understood.

The 1990s are shaping to be a period of reaction to the neo-classical renaissance. There is already growing recognition that structural adjustment has costs and governments have a responsibility to ease those cost burdens on disadvantaged groups. There are also growing doubts about the capacity of markets to solve problems of poverty and resource degradation. These problems may be most starkly evidenced in Eastern Europe, and there is concern that interest among Western nations in the problems of developing countries will wane in consequence.

A reaction is also emerging to the more extreme views of the 'alternative' lobby. The limitations of the community development approach are being rediscovered. For example, Fowler (1988) has emphasised that NGOs have comparative advantage only as agents of micro-development, not when parallelling government services. Similarly, some of the more outrageous prescriptions of the 'greenies' are being recognised as inappropriate (Green (sic) 1989, p.42):

> Environmental and ecological protection should be rescued from its European/North American [and Australian] upper middle class origins and related to the struggle against poverty ... Need can be as damaging environmentally as greed but cannot be dealt with by the same instruments.

While forecasting what will be the vogue in development thinking by the year 2000 is too hazardous even to attempt, this potted history leads to the following hypothesis:

H1: Whatever the current fashion in development thinking, it will be outmoded in five years from now.

This proposition is based on:

(a) the history of constantly evolving ideas about development; and

(b) the fact that present prescriptions derived from current theories are clearly far from wholly effective and comprehensive.

With a multiplicity of development objectives, not all of which can be maximised at once, there are questions about the trade-off between objectives. The growth/equity trade-off is but one case. Another is the trade-off between economic growth - reflected in increased per capita real incomes - and individual freedoms. To what extent should individual freedoms be forgone to achieve growth? That there are limits to this trade-off is evident in a number of countries where civil unrest is common. Of course, when there are losses of freedom but no compensating economic growth, the situation is even worse, perhaps leading to a breakdown in social structures.

Given the complexity of development issues, the search for a universal paradigm is a difficult and perhaps pointless task. Indeed, we may make more progress towards an understanding of development by chipping away at manageable problems with our existing paradigms and improvements to them. It may not be too optimistic to hope that, as we understand bits and pieces of the whole problem, we may achieve a situation where the sum of the parts materially improves our understanding of the whole.

4. The Household and Village Economy

The importance of gaining an understanding of the reality of rural households and villages is widely acknowledged. The inadequacy of understanding is indicated, for example, by the failures of some rural development initiatives (e.g. World Bank 1988, and Donaldson, this volume). Even in trying to write about the issue, one lays oneself open to criticism for, as Chambers (1983, p. 2) notes: 'Outsiders are people concerned with rural development who are themselves neither rural nor poor'. At best, most of the Conference participants would be classified by Chambers as 'rural development tourists'. He explains why the information about rural areas available to urban-based planners and policy makers is so often wrong, and why, therefore, there is a need for fundamental reversal in outsiders' learning, values and behaviour if rural poverty is to be realistically tackled.

Chambers' views have never been seriously challenged, yet:

H2: Most rural sector policy making remains largely uninformed about the realities faced by rural producers and consumers.

During the panel discussion at the Conference, Donaldson outlined three reasons for this deficiency: (a) a lack of inclination to inquire; (b) a lack of awareness of what to look for; and (c) a lack of appropriate information systems. Another reason may be that economists have failed to develop a convincing paradigm for the study of rural economic systems. Much of the early work on rural societies was done by sociologists, anthropologists and geographers. While acknowledging the breadth and attention to detail of these studies,[2] economists tend to be disparaging about the lack of a core of theory that allows their authors to generate convincing policy prescriptions. In recent years the 'new' farm-household economics has been advanced as providing the missing theoretical core. Yet a review of the work that has been done in this paradigm (e.g., Fleming and Hardaker, this volume), and especially an examination of who has done the work and in what contexts, suggests that there has so far been little impact on policy making. The cynic can easily conclude that farm-household modelling is no more than a self-gratifying intellectual exercise for academics and PhD candidates, inappropriate to the realities of planning offices in developing countries.

On the other hand, criticism that the linkage of such modelling work to policy has not been direct, so that there is no obvious influence on policy, may be asking too much of such inquiries. What can reasonably be asked of the modelling work is that the question addressed is important and adds to our understanding of both the development process and the policy judgments that have to be made about changes to that process. In regard to pleas for simple models and for more and better data, it is well to remember that models should be tailored to the policy question in mind, and to the timeliness with which policy advice is required. It is nonsense to impose a complex multi-equation system approach on what may be a relatively simple problem, or one that is complex, but requires a quick response. However, it is misleading to suggest that complex situations can be comprehensively covered by simple models.

Similarly, in-depth studies of particular villages by economists, anthropologists or geographers were criticised during the Conference on the grounds that the results are not generalisable to any degree. This criticism seems to miss the point. What the policy maker is presumably looking for is better information on which policy decisions can be made, and research adds to that information.

The debate about data for policy making is by no means resolved. As Chambers (1983) argues, the information flowing to policy makers about rural areas is usually incomplete, out of date, and often plain wrong. Sample surveys are expensive, slow and unreliable, while the fashionable methods of 'rapid rural appraisal', unless done extraordinarily well, merely provide opportunities for those involved to fortify their preconceptions, rather than to gain new insights. In discussion at the Conference, Barlow pointed out that, even for those who do go to rural areas and know what to look for, perceptions often vary markedly between individuals. Moreover, Donaldson argued that academics are often to blame for information deficiencies. Surveys are over-designed to collect more information than can be analysed. Restraint is needed in field studies (see Delforce and Potter, this volume, for differences in survey technique).

It seems that there is a need for a new approach to linking policy making to rural people - one that is 'appropriate' to developing country circumstances, meaning that it is reliable, cheap, and within the capacity of the executing agency. Epstein's Development Market Research may be at least a part of the answer (Epstein, Gruber and Mytton 1991). Certainly it seems that the greater the centralisation of decision making, the more the divergence between policy makers' preferences and those of the rural communities on the receiving end of policy. This suggests that there is merit in schemes that delegate responsibility for policy making to the greatest degree possible, compatible with the need for some central coordination and overall consistency.

5. The Economics of Institutional Change

[2] But not all the anthropological work was done as thoroughly as it should have been. Freeman (1983) has shown that even the famous Margaret Mead let her preconceptions cloud her perceptions in Samoa.

Many institutions in developing countries are reflections of a colonial past and it is not always clear that they are effective in a post-colonial era. It is a characteristic of institutions that, while relatively easy to create, they often survive long after they have ceased to be effective. Donaldson (this volume) admits that even the World Bank has been notably weak in institution building - a task that is probably the most important component of efforts to promote rural development. It seems that:

H3: Economists have little to contribute to important questions about institutional change and reform.

The main reason for this is the sterility of institutional economics which at best lacks prescriptive power and at worst inhibits the search for ways of institutional reform. Although perhaps not conceived in these terms, the 'induced institutional innovation' hypothesis (Ruttan 1978, Ruttan and Hayami 1984) is too easily interpreted in terms of Dr Pangloss's notion that 'everything is for the best in the best of all possible worlds'. It is patently not the case that getting prices right is all that is required to encourage the evolution of appropriate institutions.

The history of attempts at reform shows that there are many paths to effective institutional development, and that these paths can be ideologically divergent. Institutional economics may tell us something about why particular arrangements have come into being, but seems largely impotent when it comes to prescribing what needs to be done to build new institutions that will stimulate desired change in rural areas. As Schmitt (1986, p. 391) notes, 'It is ... astonishing that agricultural economists have neglected the economic aspects of the creation and change of institutions in the field of agriculture and agricultural policies.' It seems that the political and management scientists have more to contribute than economists to this important task (e.g. Brett 1988).

It is significant that the contributions of Coase and others (see Barlow and Quizon, this volume) at the University of Chicago owe as much to their professional training as lawyers as to their training as economists. That legal flavour is reflected in the discussion on land rights and their transfer. 'Legal' here means not only enacted legislation, but also the set of rules relating to property rights. That set of rules differs markedly from one developing country to another, from the use of tribal chiefs as distributors of land rights in Africa, to the various forms of communal ownership of land and its transfer in South Pacific and Southeast Asian countries. Moreover, land legislation enacted by the government materially alters land rights. In Sarawak (see Cramb, this volume) it seems clear that the state could, and did, alienate land by fiat. In Papua New Guinea, all land not alienated at the time of the relevant land legislation was deemed to be in customary ownership and non-transferable.

A notable omission from the papers that follow is detailed discussion of institutional developments in financial markets and in markets for labour. Development is at least as contingent on changes in institutions relating to these markets as in institutions associated with land rights and their use and transfer.

6. The Economics of New Technology Adaptation and Adoption

The complexities of development are epitomised by the adaptation and adoption of new technologies (see Anderson, this volume). Literature in the area is copious, reflecting the fact that development and introduction of improved farming methods have long been seen as the main (and most politically acceptable) method for developed countries to assist rural development in developing countries. Yet:

H4: Agricultural technology solutions to rural development problems are growing less relevant (if they ever were) to the relief of poverty.

Some reasons for this trend are that:

(a) diminishing returns to research efforts are starting to become apparent;

(b) the full resource costs of 'new' technologies were not originally appreciated - now we see them as expensive, as the external diseconomies arising from the heavy use of chemical inputs are more widely recognised (see Byerlee, this volume, for discussion of this and other longer-term sustainability issues);

(c) the wrong problem, of raising farm productivity and income, is being tackled - the real poor are landless who may be harmed by the output-increasing (rather than employment-generating) technologies being developed and promoted (see Pradhan and Quilkey, this volume);

(e) in the more populous countries, scope for employment generation in agriculture on the scale needed does not exist, implying a need to focus increasingly on rural industries; and

(f) with few exceptions, the real 'basket cases', in terms of poverty, are the result of gross political mismanagement - often accompanied by civil disturbance or war - and until these problems are solved, no efforts to stimulate rural development will work.

In a recent analysis Hayami and Otsuka (1991) noted that, in order to sustain growth in food cereal production into the second decade of the 21st century, the potential created by the Green Revolution will be insufficient and a new production frontier must be established. To date, there is no evidence that the metaproduction function has been pushed out since the Green Revolution, although this possibility has been opened up by advances in molecular biology and biochemistry. Hayami and Otsuka also indicate that increasing privatisation of biotechnology research raises crucial and as yet unanswered questions about the articulation of this work with the developing countries. The question of 'orphan' technologies - technologies that are socially useful but cannot be profitably developed by private entrepreneurs - is relevant here.

Even if the genetic engineering problems are solved, the feasibility of greater intensification of production in high-rainfall and irrigated agriculture seems dubious. Groundwater pollution and health problems for workers are both signals that scope for 'more of the same' is limited. Yet the success in developing more intensive technologies for the large areas of the world where growing conditions are less favourable has been so limited as to suggest that solutions will not easily be found, even with the aid of modern biotechnology.

During the Conference there was debate about the interaction between technology adoption and agricultural prices. It was pointed out that, in the early stages after the Green Revolution, there was imperfect understanding of the effects on the adoption of modern varieties of the complex interactions between the available portfolio of innovations, farmer characteristics, and input and output prices. In particular, the importance of reliable water (from rain or irrigation) for the success of the Green Revolution technology was not well appreciated at first.

The discussions revealed differences of opinion about the need for input subsidies. Byerlee (this volume) suggested there is still a short- to medium-run role for input subsidies to encourage technology adoption in sub-Saharan Africa. However, Parton (this volume) argued that, in Eastern Kenya, a fertiliser subsidy might only provide a money transfer to those who have already adopted new technology. We believe that input subsidies (especially for fertilisers) have been a second-best policy option when, in many situations, the first-best solution would have been to remove restrictions on product prices - restrictions that represented concessions for urban-based residents who have political power.

7. Overall Planning

Planning is a feature of economic policy making in almost all developing countries, though in few developed countries. (It is instructive to question why this is so.) Yet:

H5: Most rural policy makers and agricultural economists over-estimate the capacity to affect the nature and pace of change in rural areas through planning.

Reasons for this hypothesis are that:

(a) uncontrolled international or environmental factors are often at least as important as domestic economic policy settings;

(b) macroeconomic policy settings are more important for change in rural areas than sectoral policies, yet the focus, as at this Conference, is too often on the latter rather than the former; and

(c) the capacity to change the evolution of rural societies by policy intervention is limited.

The rationale for (c) is that the rural sectors in most developing countries are comprised of many millions of independent agents whose behaviour is never controllable and is only marginally influenced by government actions. To the extent that farm households are subsistence-oriented, they partially isolate themselves from policy initiatives implemented through prices - the most readily manipulated policy instruments. Moreover, the understanding of the response of those farm households that produce at least in part for the market is so often deficient as to make policy setting a very hit and miss affair. It is not unknown for those trying to decide what incentives are needed to achieve particular responses to be ignorant of even the signs of the relevant supply elasticities.

It is understandable that politicians commonly claim more ability to influence events than they are able to deliver; it is unforgivable for economists to do so. It seems that there is a need to reappraise the value of the typical planning process in developing countries wherein three- or five-year plans are produced, often absorbing practically the whole domestic capacity of trained economists, to generate what may be little more than a wish-list of projects to put to aid donors. A more realistic, adaptive approach to planning, designed to cultivate an institutional memory, would seem to be preferable. Mistakes in policy, programs and projects are inevitable, but it is important that the lessons from those mistakes are learned and remembered. Here too, then, there seems to be a need for a new paradigm.

If planning is still in vogue in most developing countries, the renaissance of neo-classical economics is also having its impact:

H6: The fashion, at least in the influential international agencies, has swung too far in favour of market solutions for all ills.

This hypothesis is really Killick's (1986), with support from a somewhat different perspective by Dearlove (1987). Reasons include:

(a) A naive confusion of theory and reality - too many economists seem to forget that their economic models are based on unrealistic assumptions. At best, therefore, these models can generate hypotheses about reality that need to be tested. They can never generate prescriptions, although they are widely misused in this way.

(b) Invalid extrapolation from the evident failure of central planning in Eastern Europe to the effect that market solutions are universally best. Proponents of the view that markets can fix everything should ask themselves why the problems of poverty throughout the world have persisted for so long. Moreover, the view that getting prices right is a prerequisite for rapid development is counter-factual. As Killick shows, by most criteria, the twenty-five years or so to the mid 1970s was a period of 'development explosion' in most of the developing countries, even though it was also a time when many prices were highly distorted. Cross-country comparisons also show that there is no unique path to rapid economic growth (see also Morawetz 1977).

(c) Blindness to the limitations of markets, especially in relation to the distribution of income. While economic growth is a necessary condition for reduction in poverty, it is certainly not sufficient. 'Trickle down' didn't work in the past and doesn't work now. Similarly, markets don't work well if externalities are important, as is often the case in resource management. Jodha (1990) has highlighted the decline in productivity of common property resources in India and the limitations of privatisation as a remedy. Also, as noted, there is failure to recognise the adjustment costs in moving away from regulation. For a poor country, these adjustment costs may be socially and politically unacceptable.

The point is not that prices are unimportant. Clearly, prices matter, and getting prices badly wrong can be the end of development (Timmer 1973). But questions to be asked are:

(a) In a country where prices have become highly distorted, how, and how quickly, should those distortions be corrected? and

(b) What else needs to be done to promote rural and overall development? (See Brett 1987.)

In Conference discussion Hewson argued that H6 overstates the case. In his view, the international agencies have not swung in favour of market solutions for all ills, but to a more realistic assessment of the limits to which governments can achieve change themselves, as opposed to the setting of conditions through which people can better achieve their aspirations through their own efforts. He suggested that it is the view of the proper role of governments in the development process that has changed. Nevertheless, it is necessary to note the difficulties - the speed with which prices can be adjusted without excessive shocks, the complementary nature of other development stimuli, and the safety nets that must be in place.

8. The Economics of Human Resource Development

There is little disagreement that raising human capital is essential for successful development (see, for example, Jamison and Lau 1982). As agriculture becomes more technologically advanced, farmers' education and training will contribute increasingly to overall productivity. Less clear is how human capital is best built up. Schooling for rural people enhances occupational and geographical mobility, which, if other policies are wrong, and especially if there is urban bias, may simply mean that the educated move to the cities. Several developing countries have such good educational systems, from primary through to tertiary levels, that they are significant exporters of skilled people to developed nations. Yet the problems of poverty in these countries remain largely unresolved. The reason is that in poor countries the rich are often educated and healthy - it is the poor who are usually ill, illiterate and in big families. Hence:

H7: Attempts to attain rural and overall development through human capital improvement will work well only if programs are selectively directed to benefit the (mainly rural) poor and integrated into a coherent overall rural development strategy.

Economists may have erred in emphasising the productive benefits of raising human capital. One view is that good health, a normal life expectation, and a reasonable education are basic human rights, not merely inputs to generate increased GNP (see Corner, this volume). On the other hand, in discussion Hewson queried the meaning of basic human rights if governments or communities lack finance to support the necessary programs to make them a reality. He suggested that economists may have been correct in emphasising the productive benefits of raising human capital; economic growth is needed to be able to provide for basic human needs.

Clearly, there are consumption elements in both education and health services (see Khoman, this volume), but to ignore the investment dimension of the allocation of scarce resources to health and education is wrong. The efficiency/equity trade-off is a chronic problem in neo-classical economics. However, to emphasise efficiency at all costs may lead to revolution as the dispossessed protest; while an over-emphasis on distributive questions may result in there being no cake to distribute.

9. The Economics of Infrastructure Development

Lastly, there is accumulating evidence about the importance of infrastructural improvement (e.g. Ahmed and Hossain 1990). Good transport and communication systems are prerequisites for rural transformation. They have too often been overlooked in favour of 'cheaper' solutions such as improved farming technology, integrated rural development and other less effective nostrums. Infrastructure improvements may be particularly relevant in the light of new ideas about the inhibiting consequences of incomplete and asymmetric information (Hoff and Stiglitz 1991). Better infrastructure can reduce these sources of dysfunction. Hence:

H8: The provision of improved rural infrastructure is the best form of aid that developed countries can offer developing countries.

Reasons for this hypothesis include:

(a) the greater likelihood that infrastructure projects will actually have the intended impacts, compared, say, with projects based on the introduction of (usually untested, and often undeveloped) new technologies, or on difficult-to-manage reforms of institutions (World Bank 1988);

(b) improved terms of trade of rural communities as a result of lower transport and transaction costs; and

(c) often, direct improvements in the quality of life in rural areas.

During Conference discussion Hewson noted that infrastructure is relatively easy to deliver, gives the aid donor a high profile, and generally stimulates economic activity in rural areas. Problems arise, however, when resources available and the level of economic activity do not deliver enough revenue (or those revenues are not reallocated properly), to operate and maintain such infrastructure. Also, there is the problem that the public in the donor countries (whose taxes provide aid) often want to have more direct association with the humanitarian side of rural development, and want to focus on direct assistance towards basic human rights.

A further problem with seeking to give priority in allocation of international aid to infrastructure is that the available funds are declining, certainly in Australia, and large rural infrastructure projects are seen as too costly. There is a growing preference for 'softer' options, such as increased reliance on NGOs as aid delivery vehicles.[3] It is true that NGOs have been more effective than governments at delivering aid to communities, but:

(a) For how long, if more and more NGO funds come from government sources? When is a government-funded NGO no longer an NGO?

(b) Is the increased reliance on NGOs mainly a way of saving aid delivery costs, with neglect of the issue of cost-effectiveness?

(c) Is the 'people centred' development widely embraced by NGOs going to be effective in the long run, if rural areas remain largely isolated from urban and international markets?

Remenyi, in Conference discussion, emphasised that NGOs tend to do the 'right' things, rather than do the grass-root things better, in that they work with the landless, women, children and household sector survival enterprises. By contrast, Baliscan suggested that, in the Philippines, many NGOs are engaged predominantly in rent-seeking activities. Clearly, NGOs can have their place, especially in micro-level development, but cannot be a substitute for government action, particularly when large infrastructural projects are needed.

10. Conclusion

Development is slow and difficult to achieve because of the multiplicity of factors involved and the absence of a single paradigm into which development issues and policy options could be fitted. Some of the important issues are taken up in the papers that follow. For now we might simply conclude with:

H9: There is no magic formula for development, except that this fails the requirement of a hypothesis that it not be self-evidently true.

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[3] The Leader of the Opposition has suggested that, under a Coalition Government, not only would the Australian foreign aid contribution be cut, but a much higher proportion of aid than in the past would be directed through NGOs.

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