In our view the fundamental objective of rural development programmes is to reduce and eventually to eliminate acute poverty (although we certainly recognize that major attention must be given to the rate as well as the ‘pattern’ of agricultural development). Measured against this strategic long-term objective, national and international development efforts have failed in many countries, especially in the 35 low-income developing countries.¹

It has been estimated very roughly that in 1980 some 750 million people in developing countries were living in ‘absolute poverty’. The 1.3 billion people living in low-income countries account for a large percentage of the world’s population living below a poverty line, however that poverty line might be defined. Some 70 per cent of the population and labour force in those countries still depend on agriculture for employment and income; the most widespread and intractable problems of poverty are to be found in the rural regions of the low-income developing countries.

A retrospective analysis by Vyas (1979) of changes in the number and size distribution of farm households in India epitomizes the problem. Between 1953–54 and 1971–72, the number of farm households in India increased from 49 to 81 million; the average size of farm holding declined from 6.3 to 3.8 acres. Even more significant as an indicator of the increase in rural poverty, the number of ‘marginal’ farm households with less than 1 acre more than doubled, rising from 15 to 36 million in less than 20 years. It is true that the marginal and landless households bore the brunt of the increasing pressure of population on the land. It is not true that ‘the small were getting smaller because the big were getting bigger’. The number of ‘big’ and ‘large’ farmers declined, and there was a decline in the average size holding in every size category.

The proximate causes of the increased extent of rural poverty in India and in other low-income developing countries are obvious: the growth of population and the continued dominance of agriculture in their labour force

* This review briefly summarizes some of the principal themes in our recent book, Redesigning Rural Development: A Strategic Perspective (1982). A number of extracts from the book are included with the kind permission of Johns Hopkins University Press.
because of limited expansion of non-farm job opportunities. India's rate of population growth of some 2.2 per cent has been relatively slow as compared to other developing countries. Moreover, it has declined a little whereas for the other low-income developing countries population growth rose from an average rate of 2.4 per cent in the 1960s to 2.6 per cent in the 1970s. On the other hand, the share of agriculture in India's labour force only declined from 74 per cent in 1960 to 71 per cent in 1979, a small change even compared to other low-income countries (World Bank, 1981, pp. 166, 170). But identifying these proximate causes tells us little about the critical question: what has gone wrong? What kinds of policies and programmes are likely to be more effective during the next two or three decades? We interpret our assignment as a challenge to look back on the experience of the last twenty to thirty years and from that strategic perspective to offer some answers. Given the complexity of the issues of rural development, our perspective is necessarily partial, our answers necessarily tentative. For the sake of brevity, however, we offer them as assertions. We have examined the relevant evidence in considerable detail and discussed some of the qualifications and caveats in Johnston and Clark (1982). It is worth emphasizing, however, our conviction that policy analysis 'can be no more than a guide, an aid, to better policy design' (Johnston and Clark, 1982, p. 265). Moreover, only action in specific country situations can improve the lot of the rural poor. Theory, research, and analysis can provide only limited guidance in the design and implementation of the intervention programmes that are needed. Because mistakes and short-falls are inevitable, we stress the need for improved trial-and-error learning that better integrates theory and practice in a continuing process of policy redesign.

**SOME PITFALLS OF ANALYSIS**

Some battles can be won by piecemeal action. To attain the basic, long-term goal of overcoming poverty, however, we must think and act strategically. Our actions must be guided by a recognition of the inter-connected determinants of rural well-being, of both complementary and competitive effects of individual programme actions on one another, and of the long-term consequences of policy choices.

An essential starting point for analysis of the complex, ill-structured problems of rural development is an understanding of the nature of a country's rural development problems. There is, of course, great diversity among developing countries in their physical environment, economic resources, historical circumstances, political régime, and many other dimensions. Nevertheless, the subset of low-income developing countries have in common a number of characteristics that tell us a great deal about what changes are most desirable. These countries also face similar constraints that are important in determining the kinds of change that are likely to be feasible.
Feasibility and desirability
A tendency to equate the feasible with the desirable is one of the most common pitfalls of the historical debate over development. One version of this pitfall is to assume that because a certain goal is desirable, it must be feasible as well. But especially in the lower income developing countries, resources are scarce, needs are enormous, and there is never enough money, time, or trained manpower for all of the important tasks that demand attention. The pursuit of the desirable may often be infeasible, wasting the scarce resources it consumes.

The converse pitfall assumes that because a certain goal is feasible, it must be desirable as well. But the use of resources for any task in the developing world is likely to entail substantial opportunity costs. Thus, a hard-nosed penchant for doing what works almost always means not doing something else. Opting for programmes simply because they appear to be feasible is likely to preclude the search for other options that could have greater impact in reducing rural poverty.

A conventional view of planning emphasizes procedures in which objectives are first established and then the means required to attain those objectives are determined. The attractive logic of this approach is misleading. Instead, good policy analysis emphasizes the need for mutual adjustment of ends and means: the definition of objectives must be shaped by the availability of resources – and vice versa to the extent that available resources can be enlarged or deployed more effectively. This stress on the need to mutually adjust ends and means has important implications for the design of strategies for rural development. In particular, it emphasizes the importance of making hard decisions about priorities. That is an especially difficult challenge. In our judgement the nature of the problems confronting the contemporary low-income countries emphasizes the importance of attaining multiple objectives: (a) accelerating the expansion of farm output; (b) generating productive employment opportunities (both within and outside agriculture) for a growing labour force; (c) reducing the particularly serious manifestations of poverty (especially malnutrition and excessive mortality and morbidity among vulnerable groups); and (d) creating an environment favourable for slowing the rate of growth of population. The design and implementation of strategies for rural development capable of achieving those four objectives is not easy. But there is persuasive evidence that it is a feasible goal, although there is no reason to be optimistic that in all or even most cases the obstacles to success will be overcome. On the other hand, because of the severity of the resource constraints that characterize the lower income developing countries, achieving a significant reduction of the poverty that is so widespread in these countries by relief and welfare programmes is, we believe, simply not feasible (Johnston and Clark, 1982, pp. 68–69).

Ineffectiveness and lack of consensus
Another pitfall that has compromised development efforts has been the ineffectiveness of development advisors in creating the consensus necessary
for effective action. Instead of cumulative progress in advancing understanding, we have seen the typical behaviour of an immature field: a tendency to jump from controversy to controversy and to flit from fad to fad (Ravetz, 1971). An able practitioner has argued that good policy analysis requires a systematic effort ‘to evaluate, or to order, and structure incomplete knowledge so as to allow decisions to be made with as complete an understanding as possible of the current state of knowledge, its limitations, and its implications’ (Morgan, 1978). When applied to a problem as complex and ill-structured as development, a host of variables and changing interrelationships among those variables must be considered. Consequently, complete knowledge and understanding are impossible. Furthermore, judgements and decisions by policymakers will inevitably be influenced by opinions, subjective preferences, values, and vested interests. Therefore, good policy analysis should order and structure our incomplete and imperfect knowledge ‘in ways that are open and explicit’ and should avoid drawing ‘hard conclusions unless they are warranted by unambiguous data or well-founded theoretical insights’.

Development specialists have not given enough attention to arriving at an agreed understanding of the fundamental conditions and constraints that characterize different types of development situations. Too often our objective has been to demolish an opponent’s theory and to establish the superiority of some alternative version of the ‘truth.’ Such an emphasis on claims and counterclaims is singularly inefficient in identifying the really important issues on which there is inadequate understanding or faulty or insufficient evidence and thereby gradually broadening the areas of consensus. In the absence of a workable consensus on what needs doing and how it is to be done, it is difficult to overcome the inertia of a government bureaucracy and undertake new initiatives. At the same time, in the absence of patient and persistent efforts to advance understanding and to build consensus for well-considered programmes, there will be a tendency for governments to undertake hasty and sporadic action to respond quickly (and ineffectively) to the latest crisis.

Cogitation and interaction
A third pitfall concerns the tendency to exaggerate the role of ‘intellectual cogitation’ as an approach to social problem-solving. The terms ‘intellectual cogitation’ and ‘social interaction’ have been introduced to describe two alternative approaches to social problem-solving (Wildavsky, 1979; see also Lindblom, 1977, chapters 19, 23). The approach of intellectual cogitation assumes that we are equal to the task of thinking through solutions to our problems. The social interaction approach takes a more sceptical view of our capacity for calculation and analysis and relies on acting out solutions through social processes of politics, markets, bargaining, and other interactive techniques. Comprehensive economic planning is a form of intellectual cogitation that is arguably desirable but wholly infeasible. The approach is infeasible not only because it exceeds man’s cognitive capacities but in addition it presumes the existence of agreed upon
criteria of goodness or value on which alternative solutions can be judged (Lindblom, 1977, p. 322). As Herbert Simon (1971, p. 47) has argued, 'the dream of thinking everything out before we act, of making certain we have all the facts and know all the consequences, is a sick Hamlet's dream'.

The interactive approach of acting out solutions also has its limitations. We have just noted that the feasible is not always desirable; and a predilection for 'getting on with it' may have a high opportunity cost and entail undesirable long-term consequences. Policies that promote a dualistic pattern of agricultural development based on the 'crash modernization' of a subsector of atypically large and capital-intensive farm enterprises tend to foreclose the option of achieving a broadly based, employment-orientated pattern of agricultural development involving the progressive modernization of a large and increasing fraction of a country’s small-scale farm units. Furthermore, interaction learns only randomly from its own experience, and it is incapable of learning from the experience of others.

Policy analysis seeks an integration of cogitation or thinking-through approaches and interactive, acting-out approaches which recognizes explicitly the strengths and limitations of each. Clearly, there is a need for systematic reflection on the key problems and issues, the major constraints, and the feasible opportunities for advancing development. Such reflection on and analysis of past experience provide valuable guidance for the design of programme interventions. The challenge is to make the best choices knowledge can buy, but at the same time to be prepared to learn from our inevitable mistakes in a continuing, interactive process of policy design, implementation, and redesign.

POLITICS, POWER, AND PERSUASION

Some will no doubt feel that the analytical pitfalls we have singled out are of small importance relative to the dominance in the existing political power structure of vested interests opposed to changes that benefit the rural poor. Such a 'politics first' perspective often leads to the view that a revolutionary change in the existing power structure is a 'prerequisite' for designing and implementing development strategies that will be effective in eliminating poverty (see, for example, Griffin, 1979; de Janvry, 1981).

We do not deny the importance of political factors. But it is too simplistic to attribute the failures of development efforts to a lack of 'political will' and the pernicious influence of vested interests. In one sense it is certainly true that failures of development programmes are 'essentially' political failures. The decisions of policymakers that shape a country's development strategy are bound to influence 'who gets what, when, and how'. But we believe that bewailing the unequal distribution of power is no more conducive to resolving the 'essentially political' problems of development than bewailing the unequal distribution of rainfall is to resolving 'essentially agricultural' problems.

Some development situations are doubtless so thoroughly dominated by
power-holding interests totally opposed to economic and social progress that analysis simply has no role to play. But the proper role of policy analysis is precisely ‘speaking truth to power’ (Wildavsky, 1979) – and speaking it clearly and persuasively enough that the resulting development efforts actually do improve the lot of the poor. If only because politicians invariably have many concerns and only limited resources, the policy environment will never be ‘optimal’ as viewed from our perspective as policy analysts concerned with advancing the interests of the rural poor. As Hirschman (1971) has argued, the practical requirement is to ‘think in terms of sequences in the course of which a forward step in one direction will induce others . . . ’ (pp. 19–20). Leys (1971, p. 133) brings in the political dimension explicitly when he stresses the need to assess as realistically as possible ‘what changes – social and political, as well as economic – are within the politicians’ “means”’ and what are not; and what patterns or sequences of change, among those that are practical, will carry the process of economic development farthest and fastest at the least cost in the politician’s resources. Thus we must learn to understand the constraints that define feasible programmes; and those constraints are related to the world of power as much as to those imposed by nature and by the scarcity of economic, budget, and manpower resources. But constraints, unlike a ‘precondition’, are something that can be modified and relaxed by well-chosen policies and actions. Development is the result of numerous short-term actions at the tactical level. If those actions are to have a cumulative impact, they must be related to a long-term, strategic perspective.

Because of our frustration and relative impotence as we confront self-interest and the venality of some powerful groups, the temptation is strong to conclude that incremental progress is impossible and revolution is a necessary precondition. Hence, there are many who would agree with de Janvry (1981), p. 268) when he says, in effect, that the need is not for policy analysis but rather to ‘foment collective action and class consciousness’ and to bring into existence ‘mass-based democratic régimes’.

Before we reject the possibility of a reformist approach and conclude that incremental improvements are infeasible, let us be sure that our own house is in order. After all the poor have been known to suffer as much from ill-conceived programmes designed to help them as from well-conceived programmes designed to exploit them. Indeed, faulty analysis or self-delusion may be more serious problems than self-interest and venality. And those are failings that we, as policy analysts, should be able to do something about. The seriousness of opting for revolution is underscored by the historical fact that revolutions devastate the lives of many people – especially the poor. Even in the most favourable circumstances, a revolutionary change in a country’s power structure is only a first step. Above all in low-income countries, the elimination of poverty depends primarily on generating a higher level of income by means that ensure that the expansion of opportunities for productive employment is more rapid than the growth of the economically active population. Consequently, as A. K. Sen has argued, a ‘shift in focus to technological and institutional details
Rural development programmes

is long overdue. . . . The most serious problems lie, not in the grand design, but in what has the superficial appearance of "details" (as quoted in Hunter, 1978, p. 37). We believe that regardless of the ideological orientation of a country's political régime, the success of efforts to eliminate rural poverty will require interventions in three programme areas.

A THREE-PRONGED STRATEGY FOR RURAL DEVELOPMENT

A general conclusion suggested by a policy analysis perspective is that we should focus on the more serious failings of rural development programmes and on the most feasible and desirable opportunities for mitigating those failures. Our analysis of the constraints and opportunities relevant to today's low-income countries leads us to conclude that three areas of historical failure merit priority attention:

1. The failure to design and implement effective strategies for fostering broad-based agricultural development.
2. The failure to reduce excessive mortality and morbidity among infants and small children and the interrelated failure to slow the rapid growth of population and labour force.
3. The failure to create effective problem-solving organizations at the local level and to improve the performance of development bureaucracies.

This diagnosis is the basis for our advocacy of a three-pronged strategy for rural development. The first 'prong' relates to the need for a broadly based, employment-orientated pattern of agricultural development. Expansion of opportunities for productive employment, both inside and outside agriculture, is of central importance. Fuller and more efficient utilization of the relatively abundant resource of human labour can facilitate the expansion of output while at the same time generating the incomes that enable the poor to raise their levels of consumption. This analysis and empirical evidence emphasize the importance of tightening the labour supply/demand situation if increases in returns to labour are to be achieved.

The second prong involves strengthening a very limited set of social services. This includes education, as is now generally recognized. Because of their importance and past neglect, we stress particularly the need for interventions directed at the interrelated problems of malnutrition and chronic ill-health among infants and small children. In addition to the high human and economic costs associated with impaired child development and the excessive mortality rates among these vulnerable groups, the risk that small children will not survive to maturity is also a major obstacle to the spread of family planning. Considerable attention has been given in the past few years to the decline in fertility in the developing world. A number of middle-income countries and two low-income countries – China and Sri Lanka – have indeed achieved remarkably rapid declines in fertility. It is hardly coincidental that virtually all of the countries that have realized significant declines in fertility since 1960 have also sharply reduced infant

Our third prong concerns organization programmes designed to strengthen the institutional infrastructure and managerial skills needed for rural development. The neglect of these problems is in part a consequence of the tendency for economists to focus on what to do while neglecting the 'details' of how to do it. More than a decade and a half ago Hsieh and Lee (1966) asserted that 'the main secret of Taiwan's development' was 'her ability to meet the organization requirements' (pp. 103, 105). This lesson has, however, been largely ignored in spite of the accumulating evidence that organizational requirements are not easily fulfilled and require serious and sustained attention. Success in implementing the first and second prongs of an effective strategy for rural development is unlikely unless the organizational requirements are met.

Analysis of the interrelationships among activities in these three areas emphasizes that programme interventions can have significant complementary as well as competitive impacts on each other. We have suggested that the components of a rural development strategy can be designed (and redesigned) in ways that maximize their capacity for mutual support and minimize the risk that action in one programme area will compromise efforts in other areas. This is obviously a difficult challenge, especially since development specialists are far from being in agreement concerning the need for priority attention to simultaneous action in these three programme areas.

The greatest danger of the three-pronged perspective described here is that it will be interpreted as a recommendation to adopt any and all programmes which may be advocated in the production, consumption, or organization areas. No interpretation could be further from our actual intent. On the contrary, widespread and sustained progress towards improving rural well-being requires that only a very few of the highest priority, most mutually reinforcing programmes should be undertaken at all. Strategic choice means choosing not to do a vast number of tactically attractive things. Our emphasis on the necessity of an appropriate balance between production orientated and consumption orientated activities highlights this key requirement of strategic design.

The need to conserve scarce resources, to undertake only those tasks most central to the improvement of rural well-being, is equally acute when we consider the organizational components of a development strategy. A strategic perspective means using all available forms of social organization — including political, market, and traditional structures — for the tasks which they can be made to perform reasonably well, while preserving scarce administrative talent for focused intervention when and where it can do the most good. Effective production and consumption programmes can be expanded only with the growth of organizational capacity for their effective implementation. This focus on the need to develop organizational competence directs attention at another major theme of our strategic perspective — the importance of time and timing.

Improving rural well-being is an inherently time-consuming process.
Historical experience teaches that, at best, broadly-based and sustainable progress will be measured in decades, not years. In part, the pace of development is limited by fundamental structural demographic constraints: even under the most optimistic of assumptions, today's late-developing countries will remain predominantly rural societies into the twenty-first century. Perhaps even more significant for policy design, however, is that development is essentially a learning process: the growth of organizational competence and personal knowledge are as fundamental a requirement as the growth of capital in the conventional sense. Because most of the 'answers' to development questions are not known by anyone, because even those answers which are known by some must be laboriously passed on to others, because all answers must be adapted to specific places and times, the learning process of development necessarily entails a great deal of trial and error.

This much-needed persistence has too often been lacking in rural development strategies. The desire to bypass the errors, to teach answers instead of facilitating learning, is strong – and disastrous. Impatience for immediate results has often encouraged relief and welfare approaches to improving rural well-being. Such short-term activities, however, almost invariably lead to the neglect of more fundamental long-term tasks: building organizational and technical capabilities and strengthening the capacities of local people to meet their own needs. Failure to pursue rural development strategies that are focused on programmes to strengthen indigenous capacities to accelerate the growth of output, expand employment, improve health and nutrition, and slow population growth will mean that the number of people suffering the deprivations of rural poverty will continue to increase.

Those of us who have emphasized the relevance of the experience of Japan and the Taiwan area of China have been guilty of teaching answers instead of stressing the need for a learning process leading to a continually improving sequence of programme designs. In particular, we have been much too slow to take account of a major limitation of technology transfer based on their experience. Because of the relatively homogeneous character of agriculture in those two areas and the dominant importance of irrigated production, there was enormous scope for expanding farm productivity and output by relying mainly on improved seed-fertilizer combinations for rice and a few other major crops. In countries with different and more heterogenous conditions, including major reliance on rainfed production, it is necessary to confront the more difficult task of identifying a number of strategies adapted to a variety of agroclimatic conditions and crops. Experience at ICRISAT, for example, suggests that in areas where rainfall is variable and only marginally adequate, there is a need for improved methods of soil and water management in order to realize the yield potential of improved varieties and fertilizer. Little sustained and systematic attention has been given to the task of evolving equipment and tillage innovations for that purpose that meet the needs of smallholders with very limited cash income and purchasing power (Johnston, 1981).
The development 'failures' that we have noted are failures about which something can be done. It must not be forgotten that only a decade or two ago many of today's middle-income countries faced constraints and conditions comparable to those of today's low-income countries. A number of those countries have made substantial progress in improving the well-being of their people because they did pursue strategies for rural development emphasizing vigorous and sustained production, consumption, and organization programmes similar to the three prongs of the strategy that we have advocated.

We believe that the efforts of today's low-income countries to emulate such successes will be facilitated to the extent that the development debate within these countries and the international development community can be focused constructively on fundamental constraints and opportunities, on the longer term implications of strategic policy decisions, and on systematic efforts to learn from both successes and failures.

NOTES

1 To be sure, some progress has been made even in the low-income countries. Between 1960 and 1980 GNP per caput increased at an annual average rate of 1.7 per cent in real terms (but was still only $250 in 1981); life expectancy at birth increased by a little over 20 per cent (but was still only 51 years in 1979, mainly because infant and child mortality rates are still shockingly high); adult literacy was about 40 per cent higher in 1976 than in 1960 (but was still only 39 per cent). (China is excluded from these figures; see World Bank, 1981, pp. 6, 134, 170).

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DISCUSSION OPENING – WILHELM BRANDES

This excellent paper shows all too well the broad experiences the authors have gained in their theoretical and practical work with planning and execution of rural development programmes. My problem is that I completely share the views expressed by Professors Johnston and Clark. When now making a few additional remarks I am running the risk of touching points which may have been covered already by the authors’ recent book which I could not get hold of in time.

Let me first say a few words about the optimal degree of complexity of rural development programmes or projects (Ruthenberg, 1981, p. 9). In order to attack the problems of certain portions of the rural population (in particular the very small farmers and the landless) in a more direct way than in the 1950s and 1960s, emphasis has shifted over the last decade from technology-dominated agricultural programmes to integrated rural development programmes. Such a shift inevitably has significant impacts on the complexity of the organizational task. My impression is that in many cases the decline in efficiency resulting from too much complexity has been underestimated. I feel that one has to live with the following trade-off: some programmes appear rather ideal, on paper; but they work poorly. Other programmes appear not so well-designed, in particular with regard to providing assistance to low-income groups; but due to their simple organizational structure, they function well and give, at least indirectly, some relief to poor people. I am in complete agreement with Uma Lele (1975, p. 188) when she states: ‘The approach recommended ... involves beginning with only the few simplest interventions to remove the most critical constraints and allows the programs to evolve in scope through time-phasing of activities.’ A good example for a programme following this philosophy is, in my view, the well-known Training-and-Visit-System in agricultural extension (Benor and Harrison, 1977). To design programmes that are both feasible and desirable also means, as has been stressed by the authors, not doing some tactically attractive things which, within the environment we have to work, is easier stated than done. As we all know, the problem of optimal complexity is far from being solved, and a lot of learning-by-doing remains to be done to devise programmes that are not too far from optimal for the great variety of different situations.

Next I wish to speak about value judgements that have to be made when dealing with absolute versus relative poverty, however both might be defined. In developing countries many situations exist where some measures
would alleviate absolute poverty while allowing relative poverty to grow. Other measures would lead to a more even distribution with only minor reductions in absolute poverty. In the real world zero-sum games are the exception rather than the rule. Let me clarify the nature of the value judgement required by giving an example I often use in class. I assume two population groups, \(A\) and \(B\), with initial incomes of 90 and 200, respectively, where 100 might be defined as the absolute poverty level. Implementation of project 1 would lead to a distribution of 120 and 300. If, on the other hand, project 2 were realized, the income of group \(A\) would grow to 100 while group \(B\) would experience a decline from 200 to 150. When discussing this, I was intrigued that a substantial portion of my students did not bother about Pareto optimality but preferred project 2. In my view, nothing is wrong with such a choice. It is clearly a question of value judgement. What I would like to see happen whenever rural development programmes are planned and implemented is that the responsibles enter into a dialogue (a) to estimate possible trade-offs between the attacks on absolute and relative poverty and (b) if such trade-offs should exist, to agree on explicit value judgements concerning absolute and relative poverty.

Let me finally mention another set of value judgements: the social discount rate (time preference). Whenever resources are limited for a certain period of time, which I presume is the rule, those resources can, roughly speaking, be used for present consumption or for investments generating possibilities for future consumption. Quite often the existence of this trade-off is not clearly enough examined, and the opportunity costs of basic-needs approaches are not adequately considered. Again, a dialogue among the responsibles aiming at the estimation and evaluation of such trade-offs appears to be useful. While great emphasis on the basic-needs approach implies \textit{ceteris paribus} a high social discount rate, advocates of revolutions have, at least implicitly, a low discount rate. They put a relatively low weight on the fate of the present population compared to the hope for better economic and social conditions of future generations; a hope that, as the authors show, can be futile.

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