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THE CHOICE OF METHODS FOR  
IMPLEMENTATION OF AGRICULTURAL  
DEVELOPMENT POLICIES

By

Guy Hunter

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INSTITUTE FOR DEVELOPMENT STUDIES

UNIVERSITY OF NAIROBI

BOX 30197

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ABSTRACT

The Reading University/Overseas Development Institute joint Programme of research on agricultural development has been based on the belief that, however good agricultural policies might be, there is a widespread failure in implementation. This paper expands on the main hypothesis underlying the research, namely, that in considering the choice of methods (administration, organisation and institutions) for implementation of agricultural policies, consideration of four main factors will lead to choices which are more likely to succeed:-

- 1) The attitudes, capacities and needs of the local farming community at the time;
- 2) Technical factors, especially the primary type of crop or animal husbandry practised;
- 3) The nature of the processing and marketing channel; and
- 4) The administrative resources and capacity of the main agency of change (usually government or a parastatal agency).

## INTRODUCTION

The Reading University/Overseas Development Institute joint programme of research on change in agriculture, which has been in progress for five years, is based on a belief that, however good agricultural policies might be, there is a widespread failure in implementation. In addition, it seems that a major part of this failure (certainly not all) can be ascribed to a failure to learn the lessons of experience in the choice of organisational methods and institutional forms. The purpose of this paper is to present the main hypothesis on which this work has been based.

## FOUR CRITERIA

The hypothesis can be put in the following form: Agricultural development takes place among local farming communities at various points in a continuous transition from fully 'traditional' to more 'modern' technical and social organisation; in various different ecologies; with various post-harvest treatment of crops or animals produced; and under the guidance of governments with different resources of personnel, administrative capacity, and budgetary resources. In considering the choice of methods (administration, organisation and institutions) for implementation of agricultural policies, consideration of four main factors will lead to choices which are more likely to succeed:-

- 1) The attitudes, capacities and needs of the local farming community at the time;
- 2) Technical factors, especially the primary type of crop or animal husbandry practised;
- 3) The nature of the processing and marketing channel; and
- 4) The administrative resources and capacity of the main agency of change (usually government or a parastatal agency).

These criteria may look deceptively, and indeed unrealistically short and simple. In such an immensely complex subject they certainly cannot be complete and decisive. It is necessary, therefore, to spell out some of the major issues which underlie each criterion - perhaps guideline would be more modest - and this is done below. We do not claim that the use of these criteria will provide to overseas governments or donors an infallible and precise guide to the choice of administrative methods and institutions in all cases; the world, and chance, are too complex for that. But we do claim that if the criteria are carefully considered and sensibly used, the repetition of grave mistakes will be

substantially reduced, and the chances - they are still chances - of success will be substantially, and even critically, increased.

Criterion 1: The Attitudes, Capacities, and Needs of Farmers

This criterion is by far the most difficult and complex to apply. In commonsense terms, backward tribal farmers in India or Africa will differ in attitudes to innovation, in their capacities to manage change and in their need for assistance from a group of sophisticated Punjabi wheat farmers, or Kilimanjaro coffee farmers, or successful West African cocoa farmers, who have long since learned to adopt scientific methods, geared the farm to cash earnings and learned to adapt to both market prices and new technological advances. But between these extremes lie the majority of situations, where some change in attitudes and capacities has taken place, but, in varying degrees, not a complete change and one which is not yet self-assured and secure.

Attitudes may be religious, social, customary and economic. They tend to be highly specific in place and time, particularly in the earliest stages of innovations, when local sub-cultures retain maximum vigour. There are, however, a few general attitudes which are widespread at this stage: aversion to taking risks with the main subsistence crop; fear and suspicion of outsiders, especially officials; and dependence of small farmers on some forms of power or authority within the community - public opinion of the collectivity itself, chief, landlord, etc. Beyond these generalised fears there may be far more specific rules and taboos about particular crops (especially the staple food) as to planting dates, etc., and communal arrangements for such matters as access to fields, mutual help, grazing rights. In general, the process of modernisation, including wider contact outside the village, involves a gradually increased dominance of economic motives, at the expense of attitudes which obstruct economic success, and a corresponding diminution of some (but not all) of the attitudes and behaviour patterns of the traditional idiosyncratic culture.

Capacities: The technical skill of the farmer himself is not usually a critical issue - he is in many ways skilled already, and can pick up line-sowing, for example, in a season or two. Illiteracy is, of course, limiting at later stages, when chemical and engineering techniques, and farm accounting, may become important. Labour capacity of the farm family can be critical in innovation; but this is more relevant to the content of the package and less to organisation and institutions. Socially

determined capacities are more important. The farmer, for many reasons (tenure, public opinion, etc.), may not be able to use his land as he might wish, whatever his personal attitude. Economic capacity of the farm family (apart from labour) may be restrictive. A short-straw variety may reduce necessary thatching or animal foodstuff, may deprive the family economy of vital milk or ghee or transport or fertiliser; high cash input requirements (even on credit) may be beyond the farmer if the cash-flow in the rural economy is minimal and indebtedness gravely feared or socially disapproved. Finally, managerial capacity in a social context (e.g. active participation in running a cooperative) may be very low, not merely from lack of sophistication in handling money and accounts but because of social dependency which excludes challenge to local magnates.

Needs, naturally, overlap lack of capacities. Access to inputs, to markets, to water supply, to fencing material, to information are among the most common needs which must usually be supplied organisationally from outside before adoption of new methods can even start. Extension services can be greatly frustrated by the lack of investment and organisational services outside their control but vital to the programme which they are trying to achieve.

Implications for organisation flowing from this and other criteria are dealt with below.

#### Criterion 2: Technical and Environmental

Ecology, population density, type of human settlement, type of crop grown, seasonality will all, in varying degrees, affect the organisation of implementation. Certain crops and organisational requirements - e.g. a steady flow of uniform-sized and equally ripe tomatoes for canning - imply performance which may be extremely difficult for small farmers. Irrigation involves organisation and disciplines which may be new; extensive pastoralism involves considerable modifications of extension pattern and marketing organisation; tree crops with a long period before bearing involve investment in labour and possibly credit or even subsistence payments. Acute shortages of resources - land, grazing, water, supplies - will involve government action to ration or control. Highly dispersed settlement patterns make grouping (cooperatives, etc.) hard to organise, in contrast to dense and compact communities. Most of these points are painfully obvious; but they are not always taken into account, particularly where the organisation of programmes, extension staffing and credit systems are highly centralised and governed by uniform rules: to contact 400 farm families in a big village might be possible for one

extension officer; the same number in a pastoral area might be quite impossible.

Criterion 3: Nature of Processing and Marketing Channel

This could be regarded as an extension of Criterion 2 (Technical). It includes the cases where a crop (tea, tobacco, sugar, rubber, palm-oil are examples) requires major processing for a market well outside the village (domestic or international export). Such cases lend themselves to 'integrated management' by a company, very large cooperative or parastatal board, servicing out-growers and often providing research, extension, credit, collection of the crop, processing, grading, marketing and payment. There are many well-known examples. This system supplies from outside the managerial capacity which farmers in early stages may lack, whether as individuals or as cooperatives, and can sometimes be applied at very early stages of modernisation.

In contrast, staple cereal foods, which may be used for family consumption, for paying share-crop rents, for brewing beer, for repaying obligations, for seed and insurance-storing and for minor sales, present a far more difficult problem. For example, crop-season credit for fertiliser, which will be applied to the whole crop, may be very hard to recover because: a) the credit agency does not control the disposal of the crop; b) the credit debt looks very high in relation to the few bags which may ultimately be sold for cash; and c) because small merchants usually have an advantage over official organisations in handling this type of situation.

Criterion 4: Administrative Capacity of Government

This poses difficult issues which have rarely been raised in this form. Because government disposes of a number of paid staff (extension, cooperative, community development, credit service, etc.), it is easy to draw up on paper increasingly elaborate duties and increasingly sophisticated systems of coordination (for 'integrated rural development', for example), as though the staff were a totally flexible instrument of infinite capacity. Moreover, as the years go by, more duties and more committees and reporting requirements are added, without reducing the original load. A second common phenomenon is a tendency to create a new agency for each new need, so that crop boards, land boards, credit corporations, natural resource boards, irrigation authorities, ranching corporations, settlement boards, with their inevitable accompaniment of coordinating committees, are set up in profusion and almost without regard either to the skilled manpower available (especially at field level) or to the conflicts of function and

authority which, though excluded on organisational charts, invariably arise in practice.

It would seem clear that the complexity of organisation must be related to the skill-resources of government. Where these are small, extremely simple organisational forms, with a high degree of delegation of discretion to act locally, will be necessary. This cuts across the manifest tendency to increase complexity and centralisation through planning controls, theoretical perfectionism, attempts to do too many things at once (very evident in 'integrated' schemes) and a blind eye to the realities of departmental jealousies, bureaucratic traditions and the motivation, conditions of service and career opportunities for the minor staff in the field.

#### LIMITATION OF THE HYPOTHESIS

The focus of the Reading/QDI work has been on the choice of organisational and institutional forms within a given policy. Thus the field is limited in several ways. First, it is not directly concerned with the formulation of the content of policy, except, somewhat indirectly, in so far as a policy may be organisationally impossible to implement. Policies may be chosen primarily on political grounds and political beliefs may even rule out certain organisational methods (e.g. private enterprise) though a mechanism of implementation will still have to be found, largely through public institutions such as the bureaucracy, party cadres, cooperatives, communes, etc. Secondly, technical agricultural policy was outside the field of research. Clearly, if a policy of growing cotton is applied to land which is unsuitable - there are many less simple but still catastrophic mistakes - no amount of good organisation can prevent failure. To a large extent technical choices are very highly location-specific, and therefore unsuited for handling in generalisations of the type which we have considered. Thirdly, the research has concentrated on development policy for the mass of small farmers, largely neglecting plantation agriculture and (except by implication) the management of very large collective or state farms.

#### PRACTICAL IMPLICATIONS

By this time we feel able to go beyond the mere statement that the four criteria must be taken into account, and to suggest, from the basis of experience and research, some at least of the detailed implications for organisational choices which flow from the use of these criteria. These implications are arranged under organisational headings, since they may result from applying more than one of the main criteria.

I have largely avoided using a 'stage-theory' presentation, because of the well-known difficulties of such an approach. But because we are dealing with a transition through time from one pattern of agricultural and economic activity to a different pattern, and because organisational choices have to take into account the point on the line of transition which a particular farming community has reached at a given time, the concept of sequence and timing through the stages of transition, although they are blurred at the edges, will be always in evidence.

#### Extension Organisation

Because of the insecurity, suspicion and fear of change which is strongest in the very earliest stages of development, it would appear that a classical community development approach is best suited to communities at this point. Ideally, community development staff are trained to get to know a farming community, to listen, to help the community to meet expressed needs and thereby to gain the trust of the farmers. They may go beyond this in suggesting new possibilities (not locally known, and therefore not felt as needs), but they will not act on these without local consent. This style contrasts, unfortunately, with the most common style of extension staff, who come with a package of supposedly superior practices, usually centrally devised, which they try to persuade the community to adopt.

If this initial contact is successful a time will come when the farmers, or a substantial number of them, want to go a step further, particularly in increasing incomes rather than in improving social facilities, with which community development is often most concerned. At this point fairly simple but well-founded technical agricultural advice, through extension of tested agricultural techniques, becomes appropriate. There are occasions when a complete and advanced agricultural package can be introduced all at once, but since this may involve multiple changes, perhaps commercial as well as technical (purchased inputs, credit, new types of organisation, as well as a different agronomy and crop-protection system), it is more often desirable to advance by stages: line-sowing before fertiliser, savings before credit loans, improved cultural practices before revolutionary changes in varieties and methods. Close contact with farmers by relatively simply trained staff will here be essential.

At a much more advanced stage the role of extension and the type of staff may have to change. The period of motivating farmers to

accept change will have passed; what they now need is more and more specialised advice, both agronomic (fertiliser mix, disease control, implements) and economic (costs, prices, farm management). They will also require commercially significant quantities of inputs efficiently delivered and of reliable quality. Extension staff will require better technical training, better supported by specialist advice. The university may well enter the extension field at this point. Further, government, quite apart from the extension service, will face new duties in the efficient organisation of supply, repair, marketing, seed-production, agricultural chemicals and machines. Further, because demand is rising, government may soon be able to pass over the executive responsibility (though not the supervision) to the private sector, since the farmer has at last become a profitable customer for inputs and a producer of commercially worthwhile outputs, increased both in volume and quality.

#### Credit

There is considerable evidence that, despite appearances, even poor farmers can find sources of small amounts of cash (U.S. \$ 50) when they really want to (e.g. for school fees, to meet social imperatives). Secondly, that, despite appearances, savings groups of various kinds are quite widespread in many traditional economies, and can also be stimulated. Thirdly, that borrowers are prepared to accept quite high interest rates on small loans for short periods, e.g. 10 per cent for 6 months, equivalent to a 20 per cent per annum rate (but only \$2.50 on \$50 for six months). Fourthly, that official crop-season subsidised credit schemes for farmers in a fairly early stage of development are extremely costly and not often efficient agriculturally. They are costly either because of low repayment levels or (more frequently nowadays) because of the high staff costs of loan recovery except in certain cases where credit is given and recovered by an organisation having monopoly control of the crop. They are agriculturally ineffective because the purchased inputs are spread too thinly, or used for other than the intended purpose, or partially used for consumption or social needs.

All these findings point to a far more cautious and more selective use of official crop-season credit schemes. Some suggestions would be:-

- a) To exhaust other methods of assisting farmers before purchased inputs for credit started;
- b) To stimulate savings before loans (the Comilla principle);
- c) To stress cash purchases by emphasising the cost of credit, which should be reflected in realistic interest rates;

- d) Experimental use of free fertiliser for demonstration over one year, followed by cash sales;
- e) Encouragement of small, mutually guaranteeing credit groups;
- f) Use of cooperative credit only after the cooperative is firmly established with adequate staffing and management, since credit is both the least profitable and the most difficult cooperative function; and
- g) Extreme caution in credit provision where the destination of the crop is not controlled by the credit agency.

All these suggestions reflect the fact that the wise handling of production credit by farmers is a skill which comes late in their growth towards modern farming, requiring training in its disciplines; that institutional credit is not necessarily their first need, but may become more important when they are already successful and wishing to expand; and that, on the record, credit administration through official channels is always difficult and usually both inefficient and expensive.

#### Grouping of Farmers - Cooperatives and Other Groups

Agricultural administration has to find some intermediary between official services and the vast multitude of small farmers as a point for distribution of physical or credit inputs, as a channel for distribution of information and as a focus for shared facilities (e.g. storage). Formal cooperatives have been widely used for this purpose sometimes for political reasons, sometimes simply as a convenient administrative tool. By criterion 1 (Attitudes, Capacities and Needs), the circumstances in which a formal cooperative is likely to succeed in the various tasks set it are fairly few and specialised.

The cooperative is a social organisation which cuts across the most common forms of social grouping in most traditional agricultural communities in the developing countries - for example kinship systems, age-grade systems, landlord-tenant relations, patron-client relations, employer-employee relations, clan systems, tribal societies (West Africa), caste and status systems and even the mutual assistance schemes (house-building, weeding, harvesting) common in many early societies, which are built on wholly different lines.

Nevertheless, if the cooperative is accepted as an alien innovation useful for agricultural progress, we must estimate its chances of success in performing two very different and distinguishable functions:-

- a) As a democratic, egalitarian system it is unlikely to succeed in the early stages of development when attitudes of dependency are very high. Only after a period of economic success which has included a

substantial proportion of previously dependent members of the community are they likely to modify or supplant the dominance of traditional magnates in the management of cooperative affairs;

- b) As economic organisations cooperatives demand considerable managerial skill and a value system which puts a neutral role - efficiency - above the obligations to political, kinship or patron interests. Here again, a fairly late stage of development is implied;
- c) Purely as a coherence system (i.e. one relying heavily on loyalty to the group), cooperatives are likely to succeed when the group is small, its members know each other and have interests consciously shared. This would argue that cooperatives should initially be small (50 - 100 members), which conflicts with commercial efficiency and capital-accumulation arguments that point to large societies with substantial turnover and capital, able to provide worthwhile services. This difficulty may be resolved by a small start and a very gradual expansion; and
- d) The implications are that formal cooperatives are not a tool of first choice in the earliest stages; and that coherence will be more likely if the group is initially small and is built round a clearly needed physical facility (stores, pump, well, motorboat, dairy, etc.) used equally by all members. Pure credit cooperatives have the least impetus to coherence - each man wants his own loan.

#### Popular Representation/Participation

There is an increasing emphasis on various forms of elective or semi-elective popular representation as an active element in agricultural development often including executive, or at least decision-making, responsibility. While these units at village-level (gram panchayat, village development committee, etc.) have a fairly obvious function (to express local wishes and to contribute local knowledge), the two or more higher tiers, which exist in many countries and in some projects, appear to have representative functions (they are no longer face-to-face with village people), and in some cases executive functions where staff are more or less directly under their control.

It is doubtful how far the Reading/QDI work can rightly include this subject, since the purpose of establishing these committee systems is primarily for political education of the citizens and perhaps for strengthening a dominant political party by diffusing party activity widely through the provinces, but in so far as development as such is at issue, two points emerge. First, direct mobilisation of effort is likely to be successful primarily at village level. The higher levels give orders or pep-talks to villagers; but they may also have an effect (where this is necessary) in prodding the executive bureaucracy into greater energy where that bureaucracy is controlled by the central

government. There is little evidence that the higher levels, where they themselves control development staff, achieve high levels of efficiency or impartiality. Secondly, in so far as development depends on technical expertise and technical decision-making, there is reason to fear failure. The record is often of largely politically-based decisions and of ambitious projects which lack staff and expertise for implementation. In countries where trained personnel are scarce, a tough and competent administration, prodded and checked by local councils but not controlled by them, may be both more economical in staff and more technically sound in programming. The information available from mainland China would appear to contradict this statement, since the communes there appear to be effective, but it is as yet hard to distinguish how much this efficiency is owed to local election and how much to a bold decentralisation of administration through the party cadres and nominees, combined with revolutionary enthusiasms - and revolutionary discipline too.

#### The Commercial Function

The variations in political policy and in the facts of national history make this subject the least amenable to wide generalisation. Some countries have indigenous traders and entrepreneurs; in some immigrants (e.g. Asians in East Africa; overseas Chinese in much of S.E. Asia) have, unless politically excluded or restrained, pre-empted much of the commercial sector. In heavily planned economies and anti-capitalist economies, or where there is no effective indigenous trading network, this is the stamping ground for parastatal boards and corporations, or state-supported cooperatives.

Where these large organisations deal with a major crop of high value, not mainly locally consumed in unprocessed or lightly processed form, with a fair proportion grown by sizeable and efficient growers, they can succeed fairly well - witness some of the Kenya Crop Boards, originally aimed mainly at European growers. But faced by a mass of small growers, bad access by road, uneven quality and local markets, they seldom can compete with small traders; and if they have a monopoly smuggling and black markets will appear because (in contradiction of the exploitative trader theory) traders and smugglers give the farmers either better prices or quicker and more local service. There is here a penalty exacted by ideological preferences which falls most sharply on the small men whom ideology is designed to protect; it may be a penalty outweighed by other political and social benefits. It is also necessary to weigh

the opportunities for patronage and corruption which boards give, their re-emphasis on state and centralised power and the economic prizes they offer to the elites and the party which can capture and monopolise control of government.

#### Administration

The main implication has already been mentioned under Criterion 4 - the necessity to match administrative patterns to available managerial skill and budgetary resources. What the Reading/O.D.I. programme has not studied is the possibility of improving efficiency by better management practices. A glance at the administrative superstructure of very small states will at once raise questions of proportion. Can states with a population no bigger than that of one or two Indian Districts (roughly one and a half million inhabitants in one District) really require so many ministries, departments and boards?

#### DIFFICULTIES OF INTERPRETATION

Every person, every village is, in some degree, unique. Clearly no administrative system can treat everyone differently. This is a difficulty more real in theory than in (possible) practice. General patterns of farm systems exist over areas at least as big as one extension officer's area, and frequently over sizeable administrative areas. The difficulty of adjustment lies in the administration, not in the facts. Again, within a single village there may be a few sophisticated and wealthy farmers, some halfway in transition, some still highly traditional - who is to be served? The answer is again fairly clear - the smaller, less favoured, more traditional. For if government programmes are firmly aimed to be feasible and profitable to them, the wealthier citizens will look after themselves. The trouble with much of the Green Revolution has been that a fairly capital-intensive and complex package has been offered which is, in effect, out of reach of the poorer farmers.

Again, how is the judgement - the application of criteria - to be made? Can anyone weigh up all the factors, or decide at which point in a complex transition one particular farming community stands at one point in time? Again, real life is simpler than theory. Really local people know most of the real local facts, which seem so complex to outside observers and which governments at the centre rarely bother about. What is, indeed, more difficult is to estimate the exact point at which a local custom will bow to an economic incentive and the exact moment

when new local leadership will emerge. These questions can only be answered by (intelligent) trial and error.

#### GENERAL IMPLICATIONS

If the need for closer adaptation of policies and programmes to local situations is accepted, the clear implication is that these situations must be known, and the knowledge acted upon. They are, of course, known by the people who live in them, but they must also be known to government, administrators, decision-makers; and also, perhaps, analysed, quantified and recorded, since this is the language which officials and planners understand. This leads to the major central implication: that local programming decisions must be made very near to the field because it is only there that there is any real chance of effective local knowledge.

Four processes are necessary: to push decision-making and discretion downwards from the centre; to establish an acceptable point to which it is pushed; to establish an effective contact with farmers and an upward flow of information from them; and to retrain field staff to listen first and advise afterwards. Everyone knows how difficult this is, but primarily because the first step - delegation of authority - is never taken. It is not taken because politicians, planners and administrators at the centre insist on knowing best, and simultaneously, knowing that they do not really know, they hang on to slowly changing generalised orthodoxies: 'Credit is the first step', 'Cooperatives must be created', 'Elected committees must be set up everywhere', 'Traders are exploiters', 'Extension staff must deliver packages and achieve targets', 'Integrated Rural Development'.

Ministers, planners, donors and universities all share the blame for these orthodoxies. There are, indeed, some hopeful signs of change: District Planning, Farmer Service Centres at local levels and some variations on the cooperative model. But they are still tentative, and there is still a great deal of detailed work to do in establishing the minimum essential central control, the maximum feasible local discretion, the point and the quality of expert technical input and the variety of forms of farmer organisation and contact. It is not only work which is needed, but a change of heart at the centre, both as to exercise of authority and as to the nature of the agricultural planning process.