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Agricultural Development and the Rural Poor

Edited by Guy Hunter



Overseas Development Institute

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- 3 to keep the urgency of development issues and problems before the public and the responsible authorities.

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Overseas Development Institute

Agricultural Development and the Rural Poor

Declaration of Policy and Guidelines for Action

Edited by Guy Hunter

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Preface

The origin of the two main documents which follow goes back to the 2nd International Seminar on Change in Agriculture held at Reading University in 1974.¹ At that Seminar the Overseas Development Institute put forward a proposal for the establishment of a 'Network' of correspondents interested in the progress of agricultural and rural development in developing countries, and especially in the practical implementation of policy. The proposal was welcomed by the Seminar, and a small nucleus unit was established within ODI.

The reasons for this move were based mainly on the poor communications and level of mutual contact between various groups interested in the main subject — between so-called 'thinkers' (academics, consultants, donor agencies, etc) and 'doers' (those actually responsible for forming and executing policies in the field); between academic disciplines (economics, sociology, public administration), and between physical and biological scientists and technologists on the one side and social scientists and administrators on the other.

A second reason related to better collection and comparison of research results, and better communication of these results, in plain language, to those carrying actual responsibility in the field.

During 1975 and 1976 the 'Network' grew steadily, with about 600 correspondents from 40 countries, a number of papers were circulated for comment and a great volume of information, comments, and case-studies reached ODI. But it became clear that, in dealing with ideas and analysis, the 'thinkers' outnumbered the 'doers', at least in response if (possibly) not in reading. Moreover, it also became clear that — somewhat surprisingly — there was in quite a number of subjects, a high degree of similarity in the comments and conclusions which were coming in from very different parts of the world — Africa, Asia, Latin America: the record of what makes for success or failure in credit schemes, co-operatives, extension, etc were remarkably alike; there were common factors in irrigation management or in the problems of pastoralists in arid lands.

Simultaneously, there was a widespread and growing awareness of a single common fact — that agricultural and rural development was not yet reaching, to any considerable degree, the rural poor.

1 The papers from that seminar were published under the title *Policy and Practice in Rural Development* (London, ODI/Croom Helm, 1976).

This double realisation — that there was a considerable degree of consensus in analysis, and that there was also an urgent need for action clearly pointed to the need for a new and considerably different initiative — less academic, more action-oriented.

In the Spring of 1977 a proposal was put forward by Guy Hunter to a small group ('the drafting group')¹ that it might be possible to suggest a set of relatively short 'guidelines' on a range of subjects which would seek to condense the experience of the group, and of many correspondents, in terms of the type of executive policies and tools of implementation which seemed most likely to achieve results, and particularly to benefit the poor. Obviously, such a document would have to cut many academic corners and omit many important subjects and arguments, if it was to be short enough to be read by executives and sufficiently aimed at detailed action.

The group made two important decisions: first, that Guidelines must guide in some direction, and therefore a statement of major policy was needed to set that direction; second, that no statement of policy simply originating from a small group in London could possibly carry much weight in developing countries and among officials carrying the heavy responsibilities of action. Clearly, it must be submitted for their comment and suggestion.

At this point a timetable was agreed. A draft should be prepared during the summer, circulated for comment in the autumn, revised by Christmas 1977 and sent out with an invitation to a number of senior and responsible people in developing countries to meet in the spring of 1978 and discuss both the policy document and Guidelines.

Any idea of a major conference with a hundred or more members was discarded, both because of financial costs and because detailed discussion is impossibly difficult with more than about thirty people. The seminar would also have to be short because of the extreme time pressure on senior people in developing countries.

This programme was in fact carried out, with the aid of most generous financial help from Barclay's Bank (International), the Commonwealth Foundation, the Ford Foundation, and the World Bank. About thirty invitations were sent to individuals in developing countries, of which twenty-three were accepted, six unfortunately had to cancel at the last moment for a number of pressing official reasons. With the addition of members from FAO, ILO, the World Bank and the Ministry of Overseas Development, a group of thirty-two met at Ditchley Park (23-25 May, 1978).

The meeting devoted itself, in eight Sessions, to a detailed discussion

1 The members of the drafting group are set out in the list of members of the seminar.

of the policy statement and a more general discussion of the groups of Guidelines. The advantage of a small meeting was shown in the frankness and high degree of relevance of all the Sessions, and was immensely benefited by the range of experience of the overseas members in particular.

In the outcome the *policy statement* was unanimously agreed, after detailed and careful amendment, and this statement is printed as a Declaration. It is a short statement, considering the range of policy which it covers; read as a whole, it covers many of the key issues in a policy which is resolutely aimed at including a far greater proportion of the rural poor in development. The views agreed by members are, of course, expressed in their personal capacities, and not as delegates of their governments or agencies.

The discussion of the *Guidelines* was equally active, though more general, and very useful. It was never considered possible to achieve full agreement on such a mass of detailed argument and recommendations; and indeed there was considerable controversy on one Guideline (rates of interest on Credit, which has now been amended), some reservations on a few others, and many valuable additions. The Guidelines remain the responsibility of the drafting group and in particular of Guy Hunter, who has been responsible for the initial draft and actual wording, although much indebted to the group and the Seminar for many thoughts and formulations in the text, which has been added to or amended throughout.

Obviously, such documents cannot be definitive or universally acceptable. But it is hoped that they will form a basis for widespread discussion both among policy-makers and executives and in training institutions. Both the Declaration and the Guidelines are a challenge. The challenge is to improve upon them, and to put them into effect.

R.N. Wood
Director, Overseas Development Institute

STATEMENT

(Ditchley Park Seminar)

25 May 1978

The international Seminar at Ditchley Park (May 1978) was convened by the Overseas Development Institute to consider the urgent need for radical review of both the policies and the implementation of agricultural development as a means of combating the spread of rural poverty in the Third World and sharply reducing its extent. The membership of the Seminar was equally divided between senior executives from developing countries and from international and national development and research agencies, in their personal capacities.

(1) The Seminar, having considered and amended both a Declaration of objectives and policy and a set of twenty Guidelines for practical implementation of policy, *welcomes and endorses* the Declaration.

(2) The Seminar recommends that the Guidelines, after amendment in accordance with participants' suggestions, be published and widely distributed in developing countries for further discussion. Responsibility for the content of the Guidelines remains that of the Overseas Development Institute.

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DECLARATION

The Need for Radical Policy Revision

I The Need

(1) More than half the people of the world, nearly three-quarters of the people in developing countries (Asia and Pacific 70-85%, Africa 80-90%, Latin America 40-50%), live in rural areas, sustained chiefly by work on the land and mutual services. They produce not only food for themselves (the two biggest countries, India and China, 1,500m people, are virtually self-sufficient) but also a great volume of tropical foods and materials for the consumption of developed countries. Not only is their output and their prosperity vital to the world economy: they themselves, as the majority of humanity, should hold first place in the concerns of those who wield power in the world.

(2) From the colonial period onwards there has been a slowly growing effort to improve agricultural technology and output and to increase incomes and welfare in the rural sector of developing countries. In patches, and for some income levels, there have been considerable increases in production, though not matched in value. These have occurred particularly in those commodities traded to rich countries, but also in some areas in staple foods; the Indian achievement of raising cereal output from 61m to 126m tons in the last 26 years is not just a local success: it is a large achievement on a world scale; the Chinese effort, though harder to measure, is of the same order.

(3) But the situation and prospects must give rise to the deepest concern.

(4) (a) Vast numbers of the rural poor are still far below an acceptable standard. 'Self-sufficiency' may mean technically a very low import figure; but that is on the basis that millions of people have barely enough food to keep them alive. Faced by a population growth unprecedented in the whole of human history, the margin of safety against famine is perilously small; the area of poverty painfully wide.

(b) Adequate food is a problem of both supply and demand. On the supply side countries need to increase production and maintain

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buffer stocks and a good storage policy in order to deal with shortfalls and emergencies. Much more critical for the rural poor is the demand side. Food is usually available to those who can afford it. But because of lack of land, incomes and employment, poorer people experience hunger, often seasonal, when they cannot obtain the food they need, or can obtain it only by selling assets, or becoming indebted and dependent. The problem is not alone one of total production and supply of food. It can never be solved unless the poor have adequate livelihoods and purchasing power.

(c) The social distribution of productive income-earning opportunities is a matter of grave concern. In the densely populated areas of Asia, small farmers are becoming marginal farmers; marginal farmers are becoming landless labourers; among labourers under-employment grows as the population pressure on land steadily increases. In areas of lesser rural density (Africa, some of Latin America) land is under-utilised for lack of investment and suitable technology, and the rural unemployed become the urban shanty-town dwellers; in some of Latin America grossly inequitable and inefficient land tenure aggravates the problem. *Despite growth in GNP*, poverty is spreading.

(d) In particular, huge areas of unirrigated agriculture with medium to low and often uncertain rainfall lag behind for lack of both a new technology and a vigorous investment and employment policy.

(e) In the densely populated and irrigated areas, the ruling philosophy has been guided by a vision of small farmers with a high intensity of production. But in some areas population growth and shrinking, fragmented holdings have already passed the point where such a philosophy by itself can offer a future to more than a slowly falling proportion of the rural population. UN estimates for India give the rural population as 483m in 1976; by the year 2000, 712m: for S. Asia, the figures are 1975 — 980m; 2000 — 1,560m.

(f) Moreover, the technology and the economic assumptions of the main approach to rural development have not taken into account the real nature of these societies which are numerically dominated by smallholders, landless labour, rural artisans, and the rural poor in a multitude of service occupations. Schemes designed by scientists at research centres and by economists, based on high monetary investments (in relation to the incomes of small and marginal farmers) to produce high cash returns from sophisticated agricultural systems, have been insensitive to the actual texture, constraints, fears, and capabilities of

the mass of the rural poor; among the poor, women are often particularly deprived and neglected.

(g) Perhaps above all, an employment policy clearly and resolutely designed to give an opportunity to every able-bodied family to earn by their own efforts a minimum standard of decent livelihood has been almost universally lacking. This is not only a task for a single Ministry of Labour or Employment: it results from a failure in national planning (and in international co-operation) to conceive of a global process of rural development, not only concerned with farm labour and incomes but with rural artisans, small industries, rural trade, water utilisation, construction, services, roads.

(5) At least since the Pearson Report — nine years ago — this situation has been widely known; yet it has not been squarely faced. It is a situation in which four forms of disparity stand out: (a) on a world scale between countries — North and South (b) within countries, between regions; (c) between the standards, investment and services in urban as against rural areas; and (d) between rich and poor generally.

(6) On the World scale, the developed countries have a heavy responsibility and indeed long-term interest to redress the balance of equity and opportunity in trade, commodities, resource transfer and the other subjects of the North-South dialogue. It is beyond the scope of this Declaration to say more than to stress the urgency of reaching a more acceptable system, and to emphasise that it has a profound effect on rural development. But on internal disparities there remain wide opportunities for action which only the sovereign government of each country can tackle.

(7) In fact, over the last twenty-five years, massive evidence has been collected concerning the policies and operations designed to further agricultural and rural development. There is a long record of factors and policies which have made for success or (alas, too often) resulted in failure. This applies both to general economic, technological, and social policies and to the administrative and organisational efforts chosen to bring technology and investment within the reach of the farmers.

(8) This evidence has not been adequately used. In places scattered all over the world, policies and programmes are put forward which lead to failures which could have been foreseen if the records had been heeded. Technologies and projects are put into practice which perhaps succeed with one (usually more favoured) section of rural societies, but ignore its

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totality. Lack of understanding of the real life of villages, and particularly of its power structure, by planners and 'experts' has led to the creation of institutions (such as local councils, community projects, co-operatives, credit schemes) which, however well-intentioned, too often fail to benefit the poor but rather strengthen inequalities; and, after twenty-five years of such experience, the same policies are constantly revived.

(9) It is for these reasons that this document is put forward. We believe that *a radical revision of both strategy and tactics are needed.*

(10) Its contents spring from very wide consultation with people in both developed and developing countries, who have a practical and experienced interest in agricultural development, whether as responsible decision-makers and executives, or as technologists, or as consultants, or from that part of the academic world which has engaged in detailed study and field research on the problems of agricultural and rural development.

II The Objective

(11) The fundamental objective must be to *enable* that mass of the rural population who are now in poverty to *earn*, by their own efforts, the basic human needs of livelihood — including food and clothing, shelter and living space, health and help in sickness, the resources and opportunity to use and to develop their skills and capacities.

'To enable' implies political and administrative action by government. It implies that policy, whether in investment, or prices, or agrarian policy, or the control of technology or the organisation of field services, must be sighted upon this objective. If it is not, if it is diverted by short-term opportunities, by tempting but inappropriate technologies, or by sectional advantage, it will not be able to release the poor from the vicious trap of poverty. Whatever may be the political ideology of any country, to fail in this is to fail in development.

'To earn' means for all the right to work for an adequate reward and indeed to contribute to the economy their share towards the community services of health and education.

III The Policies

Technology

(12) We would be the last to underestimate the remarkable contribution of the plant-breeders who have delivered the high yielding varieties of rice, wheat, maize, and other crops. In many countries they have contributed at a vital moment to the growth of total output and even of reserve stocks (wheat in North India and Pakistan, hybrid maize in Africa, rice with more uneven success). But these technologies have contributed far less to the main objective — to involve a far higher proportion of smaller producers in the development process — save in a few special areas.

History (eg of the Industrial Revolution) shows how violently the introduction of major new technology can shake and change any social system, not only with benefits but with suffering. New technology, uncontrolled, can be social dynamite. Deliberate social control is needed if the suffering is to be limited. This does not at all imply that the rural areas cannot use new technology. Control implies that the precise application of technology, its effect on employment, whether it is an enabling factor or a displacing one, must be considered. It is the effects of technology, not its modernity or sophistication, which is in issue.

(13) Technologies, some in plant-breeding but many outside it, already exist which can contribute more directly to our main objective; many have already been tested successfully, but in very small and widely scattered locations. In general, they have been overshadowed by labour-saving technologies, of Western origin suited to Western factor prices and to high investment on borrowed money for high financial returns. This pattern of technology is often unsuited to the mass of small farmers and labourers whose main asset is their labour and their local knowledge and agricultural or craft skills. Indeed, it is apt to increase their dependence.

(14) More appropriate technologies already exist, and could be much more widely applied; the existing fruits of research must be more effectively disseminated through extension and other channels. In addition, many variants and new technologies applicable to the situation, the endowments, the attainable life-patterns of the rural poor, could be produced by modern science if this objective were given priority.

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(15) *Research and development.* Such an addition to the range of available technology implies changes in attitude and in some programmes, not only in field stations but at all levels of research. One stimulus to alter programmes has already been applied by the mounting cost and eventual scarcity of oil-energy, and the search for alternatives. But a second new stimulus is needed, towards an output of research much more closely directed to fill gaps and meet needs of actual farming systems in which smallholders predominate. This will certainly mean that some research staff, in devising programmes, should spend more time in the villages, studying farming systems and in direct discussion with farmers.

(16) *Investment.* Small-scale physical investment has been gravely neglected. Water harvesting and control, land-shaping, feeder roads, power distribution, tree-planting, fencing, drainage, pasture improvement, processing and minor manufacturing, and the deployment of skilled personnel are far below what is required for a healthy and productive rural economy. Macro-investments in trunk roads and major dams, valuable as they are, do not by themselves go near to providing to the actual villages and small settlements of the rural population an environment in which full activity can be developed. Farmers and villagers live in particular places, with particular needs: they need small-scale help suited to their place and need.

(17) *Staff.* Such investment requires, at the point of application, *rural-minded* technical skills — in survey, engineering, water management, construction as well as agriculture and forestry. Urban bias in the training, life-style and ambitions of service staff, and 'modern sector' bias in technological research staff and programmes are two of the chief enemies of rural development. The attitudes of professional staff in the field are conditioned by their training, by their career structures, and by the values, status and opportunities prevailing in their profession. Both a reorientation of research priorities and a re-valuation of field staff contribution, evidenced by better conditions and equipment and by personal leadership and incentives, are needed if the rural poor are to get the service they need and deserve.

(18) *Administration.* This heading includes such subjects as extension and technical services, credit, inputs, marketing, the formation of farmer groups (co-operatives and others), and planning/programming activities. There is a huge volume of recorded research and experience on these subjects; and it is to this that the Guidelines, which accompany this document, are mainly devoted. In general, administration policy

must be tailored to the fundamental objective, ie to the employment, technology and investment policies outlined above.

(19) *Participation.* But administration, even of good policies, cannot do the job by itself for the millions of the poorer rural people. There can indeed be dynamic government action, in investment in the rural environment and infrastructure, so that the field of action can become one in which human energy can be more fruitfully employed; in services, to follow up that action; in technical innovation and information; and in maintaining a stable framework of costs and prices and a fair balance of rural-urban terms of trade. But final achievement depends upon the initiative and self-organisation of the poorer people themselves and the demands which they make upon government. It is the business of government and administration so to cast their policies and their contracts with the rural population that this initiative can be far more widely supported and translated into action. Growing participation and self-confidence will enable a whole section of the rural population both to initiate more of their own small-scale development and to assume their share of the civic responsibility and influence which has hitherto been almost wholly outside their grasp. 'Rural activists' are needed, both from the people and from the staff who support them. Finally, the whole process, if it is to retain its dynamism, must be backed by continuous (and increased) programmes of education and progressive upgrading of skills.

The general framework of policy

(20) We are well aware that policies towards the rural economy are not the only concern of governments. They form part of the wider framework of economic and social policy for a country as a whole, by which resources are allocated and demand, supply and employment are managed. It is because this main structure has been, and often still is, so tilted against the fuller mobilisation of rural manpower and potential that the rural poor remain poor. The bias towards importation of capital-intensive technology and the use of capital and foreign exchange to support infrastructure, services and a consumption pattern of the urban rich and middle-class market have been repeatedly noted. This bias has been strengthened by the reluctance of aid donors to finance the local costs, so often needed for rural development. Finally, perhaps the most significant competition for resources is that between the urban and the rural economy: and the bias is to the urban.

(21) There is ample economic justification for redressing this bias. There are not only the studies of 'redistribution with growth' but

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detailed studies of the differing patterns of demand and employment which would result from raising the incomes and effective demand of small farmers and the poor, compared to a similar increment to the well-off. Indeed, it is hard to see how an economy can flourish, or industry expand, if two-thirds of the population have virtually no purchasing power beyond their minimum (or below minimum) needs of food and shelter. A revision of policy is not only desirable on the strongest humanitarian grounds: it is actually needed urgently by developing countries for their economic growth.

Agrarian structure and resources

(22) The political difficulties facing most governments in their attempts to achieve their ultimate objective are formidable. Not only are there serious structural problems within the agricultural sector itself; but many of the rich and influential members of society, urban and rural alike, have a vested interest in the continuation of poverty. We do not jump to any general conclusion that without immediate and forceful revolution these problems cannot be eased. Much can be done through reform within many existing systems. For much that fails, even in countries of quite favourable political will, fails from inefficiency, over-centralisation, inappropriate technology, and the repetition of past mistakes in programmes and systems. However, in some countries, where there is grossly skewed distribution of the land resource, land reform is an essential precondition for further action designed to benefit the poorest.

(23) Where there is still unused land, there are possibilities for alleviating population pressure by bringing more land into cultivation. But in cases of extreme population pressure, some major social transformation will be needed if catastrophe is to be avoided. A notable case is in those countries in which population pressure has driven the size of land-holdings below the point where mini-farms are viable. In Bangladesh more than half of all holdings are under 1 hectare; in Java an equally critical situation exists. In such areas, even maximum investment (eg improved irrigation, drainage and flood-control in Bangladesh) and rigid control of land holdings (already very small) may be only a partial and temporary solution. Some means of pooling productive, market, and land-improvement functions through social organisation of the producers may well be essential, combined with maximum effort to increase off-farm production and employment.

(24) Indeed, off-farm employment in the rural areas needs especial emphasis. We are well aware of the absolute limits on any acceptable

livelihood which are imposed by tiny holdings, if agriculture is the only source of income. While the ultimate solution for marginal farmers and unemployed labourers will usually lie in off-farm employment, this may not be possible in the immediate future. In the meanwhile, it is therefore necessary to promote the development of all such types of employment, including agro-based rural industries, using appropriate technology, and indeed any form of production which is not necessarily tied to cities.

Assets and resource use

(25) Land reform is already a centre of attention. But the reform of water-utilisation — in many countries the key resource and most vital constraint — is still too often lacking. Some privileged farmers can preempt water at the expense of their weaker neighbours; in the case of groundwater, by using larger pumps and deeper wells; and in the case of surface water, through influence and favourable location. Fair allocation is needed.

(26) In this Declaration, the emphasis on changing the economic balance in favour of the mass of smaller farmers and the rural poor, and on employment, does not conflict with an economic policy of optimum resource use, despite the temptation, always present, to achieve quicker short-term gains by 'betting on the strong'. On the contrary, this emphasis leads to better use of human potential and of small holdings. This does not imply a neglect of the contribution which some larger farmers have made and can make in improving efficiency. It springs simply from the brutal facts of population, unemployment and a widening zone of poverty.

(27) *Agricultural and rural development.* Although we have discussed agriculture in the context of the rural economy and rural employment, we have not dealt specifically with the social services (health, education, family planning, etc) which help to transform 'agricultural' into 'rural' development. It is agriculture and other forms of rural production and trade which often generate much of the financial resources needed for social services, and it is agricultural development which poses the most complex development task. For these reasons we have concentrated upon it.

(28) *Population.* It is already clear how acutely the pressure of population on land exacerbates the twin issues of employment and poverty. The increase in incomes and security arising from the policies we have advocated should produce much more favourable conditions

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for modifying the rate of population growth, which is itself a major symptom of the poverty which we deplore.

(29) *Conclusion.* The physical and demographic facts will not go away. Even a revolution — a symptom of the failure of reform — would have to face them after the shooting stops. They are a challenge to social policy, both at the centre and in the periphery. If the future is to bring a radical improvement in livelihoods for the great mass of rural population, this challenge must be faced. For some countries the situation is already desperate; for all it is urgent. Certainly, the time to start is now.

GUIDELINES

Introduction

The Need, Nature, and Scope of Guidelines

The 'Declaration' is a necessary statement of strategy and of the values and principles which should guide rural development; it is necessary because 'Guidelines' must guide towards one set of objectives rather than another. But strategy has to be turned into action. When it comes to action a host of problems, apparent contradictions, and rival forms of administrative structure and institutions come to light. Indeed many mistakes and failures have resulted from transplanting fashionable models hither and thither in developing countries without thought as to their practical application to particular times and places, and to the physical and social factors peculiar to the great variety of rural situations. In this confusion of many voices there does seem to be a need for some reasonably short guidance, based on evidence and analysis and on widespread consultation, as to the choices of action which, for particular circumstances, seem to have the best chance of success. Among other things, it may be useful in helping donors to avoid putting money into misconceived ventures.

The feasibility of general guidance

It is the very variety of rural situations which must raise doubts as to whether any general guidelines for action can be widely valid. Some classification of situations is clearly necessary if there are to be any criteria by which the relevance of action to situation can be judged. But any attempt to compile a complete typology of situations would be bound to fail owing to the huge number of possible combinations of variables.

It is, however, possible to apply four main factors to the analysis of situations. Those used here are:

- (1) the physical environment of the situation;
- (2) the social structure and attitudes/stresses within the community concerned;
- (3) the technology available; and
- (4) the economics involved.

The guidelines stress that all four factors must not only be taken into account but used in the choices of administrative, institutional, or organisational methods. That is indeed fairly obvious, although the social factors, differing as they do from place to place, and in the same

place through time and change, have seldom been fully weighed as a guide to action. The other three factors (physical, technological, and economic) present fewer difficulties, based as they are on more developed disciplines. To given physical and social situations there is not only an 'appropriate technology', but there is also an 'appropriate social', an 'appropriate economic', and 'appropriate institutional and administrative approach'.

To assert that social situations can be broadly distinguished in ways which are significant for action does not imply the existence of a total typology of fine distinctions, but acts as a signpost in a general direction. The finer distinctions have to be picked up by the observer in individual, real life contexts.

Some confirmation of the usefulness of this method comes from the number of broad similarities of response which hold good even across continents. The reactions to a credit scheme, or to the formation of a co-operative, seem to show remarkable similarities whether in Thailand or Ecuador, in *local* societies which are in broadly similar social and economic situations.

There are of course a huge number of existing studies of the individual subjects treated in the Guidelines, using a variety of criteria. What is new here is an attempt to apply to the whole range simultaneously and consistently the same four main criteria, related to a single set of stated objectives.

Scope

The Guidelines, taking the Policy Declaration as their objective, are concerned with forms of action, often quite detailed, in the implementation of policies consonant with this objective. They are not comprehensive. Not only are some forms of action not dealt with but some general policies, particularly for example price policy, post-harvest technology, and central economic planning are not discussed. Indeed, several major subjects such as technology, research, and finance which are discussed, are not handled in detail but only in their structural relevance to the themes. The Guidelines are addressed to executives and therefore deal mainly with governmental action; but this does not exclude either the private commercial and industrial sector or the action and initiative of farmers themselves, which is treated throughout as critical to the whole process. Because of the variety of situations the Guidelines are in a considerable degree analytical rather than imperative. Analysis of factors within agricultural situations and of choices of action, followed by suggestions of appropriate choice, is their general form. Even this form is not rigidly consistent. In some cases the Guidelines mainly seek to clarify the range of choice, rather than

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prescribe; in other cases, where the evidence or the logic is stronger, a more precise conclusion is put forward. Finally, although Latin America and the Caribbean are not forgotten, it is only fair to say that most of the evidence is drawn from Africa, Asia, and the Pacific.

Evidence

This document is not in strict academic form, particularly in quoting detailed references. Many of the individual Guidelines refer to huge fields (eg credit, extension) for which even a select bibliography would cover twenty pages. It is with great reluctance that references are omitted when so very much is owed to other people's work. But it is in the nature of a short and (hopefully) readable summary that this should be so; and it is only possible to underline heavily the broad acknowledgments given, and to take responsibility for the conclusions which are drawn partly from personal experience, partly from comment, and partly from the literature.

Perhaps the most surprising fact is the degree of convergence of the research findings from a great variety of sources in certain major fields, across countries and even across continents. It is the more depressing — and a major reason for publishing — that this fairly high degree of consensus in research has not been followed into action. Finally, the Guidelines themselves, although widely submitted for comment and amendment, are the work of one hand, helped by the group of co-editors. Any other method would have involved unmanageable problems of selectivity, internal consistency, and force.

General issues

The Guidelines deal with specific issues, and are to some extent prescriptive. But there are wider, more general issues underlying this detail. Some indication of these is given in the following section on 'Main Themes', which can act as a more general introduction.

The Main Themes

Part 1 (I-VII)

The identification of potential and constraints

The right identification of local production, investment, and employment opportunities, and the right form of approach to farmer organisation lies at the very foundation of more successful rural development. For this reason 'Local Diagnosis' is put first in the Guidelines.

What to do, with what tools, depends almost wholly on the situation in which it is to be done; and that situation has social, physical, technical, and economic characteristics in many different combinations. In the past a good deal of general survey of physical environments and technical possibilities of production has been done by governments; much less micro-economic survey and assessment; almost nothing, save by academics, on the social and political responses and constraints of local communities in relation to development action. The new emphasis here is to make this identification at once more local, more relevant to possibilities of action, to include in it the missing social factors, and to involve in it those — both farmers and officials — who will be responsible for action.

The main benefit from this local diagnosis and local prescription is to avoid two main dangers — the local misfit of centrally designed programmes, and the design of programmes which in fact can only benefit a small proportion of the local community. Further, the very process of local consultation is a first step towards local involvement in planning and action.

The requirements for local diagnosis immediately bring out certain important factors which will recur in many contexts. The first is the weakness of technical representation at sub-district level, particularly in engineering (water control, land-shaping, roads and bridges) without which assessment of potential for minor investment is gravely handicapped. The second is lack of personnel for micro-economic assessment of farming systems and potential; and the third is the need for some assessment, relevant to farmer organisation, of the pattern of social structure and power distribution in the area concerned.

Differential social factors

To make a judgment on the probable *social* response to suggestions for change involves some rough classification of local communities running from customary ('tribal') communities virtually untouched by 'modernisation' to relatively successful and sophisticated farming communities already well launched into commercial agriculture. Between these extremes lie many types whose structure and values are only half changed. The key social variables *relevant to development* will be various forms and intensities of the fear of change, and various forms of the internal structure of power. As to change, risk-aversion is often used to describe fear of economic risks — a strange crop or cultivation method, or the acceptance of credit which could become a millstone of debt. But social change, upsetting the existing order (however inequitable) is also a source of fear; 'dependency' if we think of a personal relationship of servant or client to master or patron or

landlord; inter-dependency if we think of pressure to conform, and the penalties against non-conformists which society as a whole can impose. In fairly egalitarian customary societies, inter-dependence is likely to be very high, since their central value is the survival of the community as a whole, only attainable in harsh conditions if individualism is swamped by the common needs and interests. In more differentiated and modernised communities dependency is apt to be very high (hierarchical systems) and conformism steadily shrinking.

There are immediate implications for action in approaching these two types of social situation. In the customary conformist society it will be essential to convert the arbiters of custom and behaviour, in whom customary and perhaps magico-religious sanctions are vested. In hierarchical societies approach through the leadership alone will only help to perpetuate patronage and dependency; it will be necessary to make a much more direct approach to the weaker, poorer sections of the community.

Throughout Chapters III, IV, and V, in considering contact with local communities, the formation of groups, and the role of elected committees, these problems of risk, dependency, and the social hierarchy in differing situations are prominent.

The Guidelines have assumed that contacts through only the leadership of local hierarchical communities, or group-formation which is likely to result in group-leadership by the same dominants (eg whole village co-operatives or councils) will, in the early stages of development, represent a failure to reach the majority section effectively, or to reach them only through a variety of patron-client factions.

Some partial modifications of this view must be mentioned. In areas where middle and larger farmers have successfully grasped opportunities, so that the area becomes markedly more prosperous, benefits do also spread downwards *in some degree*. Second, not all leaders are selfish; some have consistently helped their weaker neighbours and are genuinely respected. But neither of these modifications annul the main conclusion.

We therefore believe that much more sensitivity and care in the approach to contact and organisation and its social consequences is valuable. It can indeed be a weapon in the hands of reforming central governments (of which there are an increasing number today) which avoids the very heavy losses, in competence, management, and enterprise, which result from a revolutionary clean sweep of local leadership — losses which can take a generation or more to recoup. We also emphasise once more those gains which can come, often without serious social challenge, by the use of small-scale investment and small-group technology and finance. In countries where the central

government is reformist but the rural social structure is still strongly hierarchical, the central administration (and therefore its field staff) can thus be used to evade or balance some of the effects of the local hierarchy by direct action.

Management and controls

As the Guidelines point out, a nice balance is needed between the degree of management and service assistance to local groups and the encouragement of self-reliance. In the early stages, and for groups wholly or mainly consisting of the weaker sections, such help is clearly essential. But it should be regarded as a means of strengthening their self-reliance towards the point of self-management, not as dominance; and from the very start some functions which the group can perform should be resolutely left in their hands. There are many examples of such an evolution (eg Kilimanjaro coffee).

Although management and service are different from control, in cases where the environment is vulnerable, in cases of disease-control in crops or animals, and in cases of rationing (irrigation), control may loom larger than management; and here again the transition from external to self-control is part of the essence of development. It is noticeable that among some spontaneously formed groups and often in traditional societies, self-imposed sanctions for rule-breaking are much more strict than governments would dare to impose.

Democracy and efficiency at local levels

Consideration of the first five Guidelines, in which problems of social organisation dominate, with a brief but necessary reminder of some relations of technology to organisation, leads to a more general issue of social philosophy in its application to the situations of developing countries. Democracy implies a high degree of recognition of a certain basic human equality, and one aspect of this is a right for the humblest people to have a say in their own affairs. To retain a constant remembrance of this right is extremely difficult for technocrats and bureaucrats in an increasingly technical civilisation. It is especially so when the equality of their humanity and the citizenship is not matched by any equality in knowledge (non-traditional techniques, commerce, etc), or in economic standing — in a word, when they are both 'ignorant and poor'. One definition of development is a process of redressing these two inequalities, through education and through incomes, so that a more palpable equality is gained in the hard terms of competence and economic security by which so many hard-headed judgments in this world are made.

It follows — and the Guidelines stress this — that it may well be unwise to put the 'poor and ignorant' straight into 'democratic'

committees and councils — and co-operatives — which are dominated by the 'rich and skilled'. It is for this reason that reforming (and even revolutionary) governments tend to be also highly centralising governments: we have mentioned the central manoeuvre for outflanking local hierarchies and inequalities. The Guidelines — perhaps surprisingly to some readers — have therefore come down quite firmly against entrusting the development process too much to these highly unequal 'democratic' (= elected) bodies in the early stages. At a later stage, when the poor are gaining both in security and self-confidence, they can demand and use effectively their rights as committee members.

It can indeed be argued that this conclusion only substitutes the government for the local 'big-wig' as patron, and continues dependency in a different form. But first the government at least *should* be a more honest patron, and not guilty of outright local exploitation of the poor, which does alas exist. Further, the Guidelines constantly repeat that governmental help should be supportive rather than directive in its approach.

But two issues remain, and cannot be neglected — the right to have a say and the right to learn citizenship by doing. The Guidelines have tried to make room for these in several ways: by direct stimulation of small face-to-face groups in which the weaker sections are the majority, usually round a technical function; by supporting those groups in management and technique and, in appropriate cases, by credit, so that they gain the experience and disciplines of management and can later play a fuller part in 'whole community' organisations; and by supporting elected bodies for local municipal functions in which, on many matters of essential local interest, all can have a say. What we have not supported is the handing over of development functions either to local party political dominance and ambition, or to powerful district-level indirectly elected councils which are not face-to face with their electors and which can become an additional arena for the exercise of already excessive economic power and privilege. 'Protector of the Poor' was not entirely idle flattery of the administrator; it was a phrase springing from deep need, and it has never been directed to councils.

Field service

Major revision of the whole system of field services (extension and community development in particular) has been delayed by underlying illusions. One illusion is that the job is to give almost wholly technical information. A second is that stereotyped bureaucratic management is adequate to maintain the morale of a very large force of staff, mostly working on their own and often in very difficult conditions of weather and travel.

The Guidelines strike at these illusions. There will never be enough officials for personal service to a mass of holdings of only one to four hectares. The job is one of stimulating farmer organisation as well as giving technical help, and can only be done through groups and contacts. Secondly the whole method of field management, the career structure of field staff, and the planning and allocation of their work needs radical revision. Chapter VI runs through various alternatives in contact and organisation, and Chapter VII deals, in model form, with the tasks, career structure, management, and training of staff.

Part 2 (VIII and IX)

Land pressure and the future

Another significant way of classifying farming and social situations is by land and water resources and population pressure on land. Where the basic resource of land-cum-water is poor the Guidelines note the comparative neglect of low-rainfall unirrigated areas, and the urgent need for technical innovation and investment in those areas.

But it is often where land and water potential is high, in the delta areas where population pressure is already intense, and where we know with certainty that it will increase still further for at least 20 years, that an even more difficult and urgent problem of shrinking holdings and unemployment arises. The Guidelines run through a number of variants of co-operative production, mainly designed to promote the use of common facilities. Some of these help; none are sufficiently radical to meet the challenge of the '80s and '90s. The range of choices can be put quite simply and brutally, assuming a gradually (but not dramatically) falling rate of population growth. One is land reform; but there are cases (Bangladesh is one) where even a total redistribution of land into equal portions would not make a critical difference. The second is extremely rapid growth of off-farm employment — industries, etc. Until now the growth rate of industry, craft, and commercial employment does not support the belief that this itself would be enough, but a substantial rise in farm productivity and incomes should have a multiplier effect, and thus increase off-farm employment in services, construction, consumer goods etc. A maximum effort to develop off-farm employment in the rural economy is now a high priority.

Thirdly, rationing and redistribution of scarce water-resources, so as to maximise the number of livelihoods created, would help in employment and quite possibly in productivity of land. Land reform *plus* industries would make a contribution, particularly if demand for non-farm products is raised by higher productivity (ie higher purchasing power from the farms).

Finally, some social reorganisation will be possible in areas of highest land-pressure. The Guidelines suggest as a further possibility — the pooling and replanning of land and water in areas where almost all holdings are already tiny, so that maximum, year-round efficiency in the supply, control, and field distribution of water, with three-crop production (possibly also stall-fed animals) could be achieved.

Part 3 (X-XII)

Differential environmental factors: the definition of objectives

The physical environment has been treated as another of the four main factors guiding the choice of action and tools of action. The Guidelines mention three exceptionally well-marked environments in particular, mountain and forest areas, irrigation systems, and pastoral areas, each of which call for distinctive administrative approaches. Perhaps the most significant issue here concerns the *definition and balance of objective*. It is an issue which indeed effects the whole field, and for example appears again strongly in the management of settlement schemes. Is it production which matters most (eg timber from forestry, beef from arid lands, sugar or rice from heavy water use), stability of the environment (eg anti-erosion through reserved forest, grazing controls), the number of human livelihoods, or the preservation and marginal enrichment of a way of life (eg nomads)? Is settlement to maximise the number of settlers (through smallholdings) or output (possibly larger ones), to maintain individual holders rather than plantation labour?

Obviously, in some cases a balance of several objectives is involved (stability of environment, viable holdings for a maximum of livelihoods, at least at break-even between investment and outputs). But the approach and organisation will differ according to the priorities within this balance. The detailed technical factors of special environments are not specified in any general Guideline, simply because they are specific to each locality; but the definition of objectives, within the technical parameters, are of key importance.

Part 4 (XIII)

Technology

Apart from recommendations on particular areas where research is needed, and indeed considerable reorientation of research attitudes and programmes towards a closer relationship to field needs, the Guidelines emphasise heavily the past social and economic bias of research, and the radical social and economic effects of the choice and application of

rural technology today. If we revert for a moment to a rather crude concept of 'the dual economy' — the 'modern sector' and the 'backward sector' — it is generally true that the choice and application of technology (and in agriculture, research) have been biased to the modern sector. That is towards maximum productivity from a limited number of producers, through crop varieties bred for maximum response to chemical fertiliser and through animals with maximum response to first-rate feeding, involving high farming skills and heavy financial inputs; and towards mechanisation, some of which reduces labour requirements.

It is true that this high crop and animal technology has generated considerable growth in output and incomes in some areas, initially through the larger and middle layer of farmers, *and* that these successes and higher financial flows have also benefitted at least a proportion of the smaller farmers and labourers — the pendulum of criticism of the Green Revolution has perhaps swung too far in some quarters. But there is still a very large sector of the poor, and of whole areas which have poorer soils and no irrigation, which have been left out. We therefore stress the need for a strategy which (in the words of chapter XIII) 'gives a high priority to technologies which can directly benefit the poor and can maximise the number of new livelihoods or improvement of existing livelihoods among the mass of rural population'. We see this as an additional (not alternative) emphasis. By thus widening the range of technologies, it becomes possible to make real local choices, much more closely guided by social objectives.

Part 5 (XIV and XV)

Commerce

Buying and selling, borrowing and lending, are almost universal and natural private activities, and only in the most rigidly 'centrally planned' economies are the bulk of them done by officials. While there are elements in agricultural commerce which are peculiar to agriculture, the skills involved are not agricultural skills, and the Guidelines suggest that the subject should either come under a separate ministry or at least in a division of the Ministry of Agriculture which is very differently staffed and which has its own network of field operations. At least this would relieve agricultural extension staff of the work which is so often loaded upon them in giving credit, recovering overdues, and handling bags of fertilisers, sprays, and seed. In an economy working at a better level these are the jobs for suppliers, banks, shop-keepers, and traders.

It is mainly the poverty of the rural areas and the consequent lack of

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effective demand, but partly the lack of communications and mobility, which has meant that private commercial services are so poor outside the towns. It is poverty among small farmers, and the attempt to cure it by the use of expensive inputs, which has led to a huge volume of subsidised crop-season lending through official or officially-backed institutions to farmers who are, in a commercial sense, essentially uncreditworthy. This has contributed substantially to the problem of overdues which has plagued agricultural development for the last 25 years.

In this situation, government may have to pump-prime the market by some provision of input and marketing services in the early stages. But, as farm incomes and demand rise, there is little to suggest that local suppliers and weekly markets, with some regulation, are less efficient and convenient to the farmer than large official organisations attempting to buy small varied surpluses. African research indicates a greater weakness at the wholesaling level, where official organisations may well be competitive. The day when a farmer can visit a large village or small market town nearby and buy or order, partly for cash and partly on reasonable credit, the range of farm inputs and household necessities which he needs, either individually or through his group, will be the day when three-quarters of the bureaucratic time and personnel and delays involved in present official systems will begin to disappear.

The Guidelines on marketing are mainly confined to two special cases — first the integrated management of cash crops which require major processing, produced by 'outgrowers', where research, inputs, credit, grading, processing, and selling are handled by a single professional management (usually a highly efficient solution); and second, crop boards which have primarily a purchasing and marketing function. The arguments for and against crop boards are discussed (XV), with a caution against excessive multiplication of central agencies.

Part 6 (XVI-XX)

Administrative structure and co-ordination

Of the many 'disciplines' involved in agricultural development — the biological and physical sciences, economics, sociology, group psychology, and public administration — it is to the last that Part 6 of the Guidelines are addressed (XVI to XX).

The central question which must be addressed is how to combine the action of the (inevitably) multiple departments or ministries or boards 'at the top' into coherent action at the farm level.

A good deal of confusion has grown up from a misunderstanding of

the phrase 'Integrated Rural Development'. As the Guidelines point out, this phrase implies a statement about objectives and methods; it says nothing about a *subject*; and ministries and departments are divided by subjects. A Ministry of Integrated Rural Development, surrounded by other ministries with responsibilities for major subjects of rural development, is a contradiction in terms. A Cabinet, or part-Cabinet of ministries is involved.

The Guidelines are concerned with two main issues — how to distinguish the central core of such a co-ordinating group from its many necessary liaisons and consultations; and how to carry down the unity of view at the top to unified action in the field. The first three chapters carry the subject of structure and functioning from the centre down through province, district and sub-district to farmer service centres; the last two with the need for devolved and discretionary district planning and with some administrative considerations in project planning and management.

Multi-tier management has been much studied in large-scale industry as well as in public administration. There is no lack of general theory ('span of control', speed of decision *versus* quality of decision, generalist *versus* specialist, and so on). On the whole, bureaucracies have been singularly resistant to using this experience, often using the argument that public accountability differentiates government organisation from all others. 'Development Administration' has brought back some of the non-bureaucratic management principles into the field, and there is now perhaps more experiment than there was ten years ago. Differences of nomenclature, situation, and availability of trained staff make generalised guidelines difficult. But we believe that much in the rough model which is used here could contribute to reducing confusion and improving the achievement of the difficult and testing task of rural development.

General — sequence of change

Throughout both this statement and the Guidelines a few general concepts pervade the analysis and the recommendations. Because development is not a static but a dynamic process, by far the most important is the concept of social and economic sequence, a concept which is a short synonym for the general direction of change resulting from the multiple, interacting processes of many causes and effects. These are the same processes which confront the historian who wished to give any intelligible account of the story of some part of human affairs.

(a) *The general sequence of development.* One broad sequence is also,

in a sense, an objective. This is the sequence in which some identifiable unit of human society moves from a 'primitive' situation (with all the attributes of attitude, social organisation, production, technology, etc. implied in that word) to one with a higher level of output and consumption, a different social organisation, and different attitudes. This sequence we may call 'development'. It is a valid objective, provided that certain value-judgments as to its results are favourable; for it is possible to have a sequence of degeneration, or for long periods, a static situation in which significant movement is imperceptible. There are two value judgments in this document — that 'development' must be more widely shared, and that it includes employment and the satisfaction of at least the basic needs of food, shelter, and health. (There are moral, aesthetic, and environmental issues here, which are outside the scope of this argument.)

(b) *Economic sequence — employment.* It has been a habit of thought in the West to describe the historical sequence of change in the occupational pattern of employment as one which involves a steady reduction of the proportion of the population directly occupied in agriculture, forestry, fishing, and mining (primary), in relation to the proportion occupied in manufacturing (secondary), and services (tertiary). This process has been carried so far that direct employment in agriculture in the UK now amounts to no more than 3% of the labour force. It was commonly said that one role of agriculture was to 'release' labour to industry.

Europe had three advantages which helped to ease this transition. First, population growth was, by today's standards, slow; it barely topped 1 per cent per annum at its fastest rate in Britain. Second, between the 17th and early 19th centuries when common land and cottagers' smallholdings were being absorbed into larger farm units, industry and commerce were growing fast to absorb the surplus labour. Third, technology was at that time labour-intensive, both in agriculture and early industry. The large farms were not worked by a few tractor-drivers but by scores of ploughmen, carters, cattlemen, and labourers. In industry an enormous wood, flax, and leather technology provided the basis for all transport (both on land and sea) and a huge range of industrial equipment (mill wheels, cogs, looms, presses, etc) provided a direct production link between agriculture and forestry on one side and industry on the other.

The situation in developing countries is utterly different. Population and labour force growth is twice or three times as fast; industrial growth, a latecomer in world markets, is far more difficult; while the metal-based and labour-saving technology gives neither the volume of

employment nor the same industrial market for rural production.

Over-condensed as it is, this argument will help to explain the preoccupation in the Guidelines with maintaining (and indeed increasing) the capacity of the rural sector to absorb (as well as to 'release') labour; with productivity *per hectare* (as well as per man) and rural works to increase both; and with off-farm employment in the rural area to stem the flow of surplus labour to cities. It will help to explain also the concern of the opening statement for redress of the urban bias in major structural economic policy. The sequence of occupational change, which is a key to employment policy, cannot be copied from modern Europe. It must spring, in each country, from the indigenous mix of labour, prices, technology, and opportunity.

The sequence of occupational change has gone awry in developing countries, partly through contact with a far later stage of economic growth and technology. It must be redressed.

(c) *The sequence in farming technology.* That new technology is needed, and perhaps even more the spread of the use of existing technology on minor land, water, and tool improvement, is strongly emphasised. But in terms of the circumstances and outlook of the smaller farmers, there are factors both of risk and skill to overcome. Heavy financial inputs come up against risk-aversion; exact farming skills against both the poor equipment and the uncertain and often unimproved environment in which the farmer works. His skill is in making the best of a bad job with minimal resources; it will take time and investment and a sequence of change, matched to his growing ability, and self-confidence and resources to reach full 'modernisation'. The 'Great Leap' is usually a great mistake.

(d) *The sequence in social organisation.* Projection into developing countries of Western ideas of full social democracy, as conceived by societies long accustomed to organised trade unions, skilfully managed and commercially competitive co-operatives, and all the host of self-managed formal and informal institutions of developed countries, is clearly likely to encounter great difficulties and disillusion. The evidence of this is massive wherever objective social research has been carried out. It is for this reason that this document has so strongly emphasised the need — so largely neglected up to date — for close adaptation of organisational and institutional proposals to the realities of local power structures and local attitudes and values.

The building of a society means the building of its people, in experience and the self-confidence which can only come from action, at first on a small scale, within a minimum basis of security. All that is

said about small groups and the start of self-management at a limited level is designed to start this process of experience and the minor achievement from which the self-confidence for later and wider responsibility can grow. The move from reliance on family or tribal cohesion to trust in a non-family organisation, the learning of the rules and moralities of such an organisation, the move from the protection of patronage to the protection of horizontal organisation — all this takes time and experience. To neglect the sequence is to delay growth and change by constant defeats and disappointments.

Government has a crucial role to play in supporting this process, and a role which cannot be delegated wholly to local elected bodies until this growth of self-confidence has spread far more widely within the local electorate.

In so far as government succeeds in this effort, and in the technological programme, many new steps in the sequence of development can take place. Small groups grow into larger, more formally managed groups, and finally to large organisations. Representative self-government at local level becomes more truly representative of all sections; farming technology and skills are better married and become more sophisticated; and hence, the job of field officers moves away from simple organisational effort and primary cultivation discipline towards a more specialised technical service.

(e) *The waste of human resources.* It is not only unemployment, or half-employment, which wastes human resources and stunts human morale. There is a great waste of the potential of the young educated, partly from mis-education (this is an old story), but also from the continuing and greatly damaging link between educational qualifications and urban employment. It is gradually becoming clear that there *are* needs for far better trained staff in the rural economy, not only in the 'modern sector' of commerce and the management of large farms, but in supplying the technical skill for infrastructure survey and investment, in planning and implementing plans at local level, in forging links between the agricultural and the industrial economy, and for a wider range of scientific research.

Development management

Throughout this document the role of government and officials has figured constantly. Despite the role which farmers themselves must play, despite the contribution from commerce and industry, and despite the possibility of more responsibility to be assumed, in the later stages of development, by self-governing institutions within the community as a whole, the role of government and its complexity and difficulty cannot

be evaded. In all modern civilisation statism has constantly increased in this century, partly owing to the increasing scale of technology-based development, and the resulting need for both economic and social control. In developing countries, mainly because of the intense desire to accelerate development far beyond its historical speed, but partly because of the weak development of private enterprise and organisation in many countries, the State is forced into an even more prominent role.

But if the State is to assume the role of executive management, rather than only regulation, and particularly where, as in agriculture, this involves the management of a huge field force, then the State must learn the necessity of morale management and of devolution, as the army has had to learn it. Officers and NCOs cannot do their job bureaucratically and still produce the height of morale needed for fighting. Nor can the extension service, in its widest sense.

This combination of the task of administrative co-ordination (particularly difficult in a multi-functional activity such as rural development), with executive management of a field force, in which personal leadership and morale is of key importance, is a task which must be tackled, but which in general has not been tackled yet.

PART 1 SOCIAL: FARMERS, OFFICIALS, AND LOCAL PROGRAMMES

I Preliminary Diagnosis

General Argument

The first step, whenever a new programme (usually, but not always, a modification of an existing programme) is to be started in any area, is to make a diagnosis of the existing situation with a view to action. The word diagnosis is used rather than 'survey' or 'appraisal' for two main reasons. First, diagnosis implies intention to act and to prescribe; whereas 'survey' tends to imply a collection of a mass of data, only some of which may prove useful; and 'appraisal' may imply only evaluation rather than evaluation with a view to prescription. Second, diagnosis implies obtaining a good deal of vital information from the patient, in this case the villagers. Diagnosis therefore implies a survey of only those facts which are likely to be relevant to possible action: and it implies consultation with farmers.

The fact that change is to be introduced not *in vacuo* but to an existing rural situation which is operating below its potential makes the choice of method of diagnosis and of the resources to be devoted to it a difficult and delicate one. On the one hand, it is necessary to avoid a total new survey of all the multitude of social, physical, technical, and economic factors involved. If a car is going badly, the first action is not to dismantle it totally, but to test for the most likely fault. On the other hand the range of remediable faults and of possible opportunities in a rural situation is considerable. In a formal 'project' some effort to obtain the essential facts is usually made; but frequently this happens *after* a decision to try out a particular programme has already been made, usually at a high level. There are huge areas where an 'ordinary' government programme is running where no orderly attempt at diagnosis of potential and needs has been made, at least for many years.

The major problem may be in the social and the service situation — that the programme and its associated institutions are not effectively reaching, or cannot be accepted by, a large section of people. It may lie in the physical environment — waterlogging, mineral deficiency, or access — some of which can be cured by investment; it may lie in failure to spot a more profitable activity; or it may be technological. All

these four aspects must be tested. To test them requires three qualities; local knowledge and the will to consult; skill (agricultural, engineering, economic); and the imagination to spot not an existing fault but something which is *not* visible — an opportunity. Of the three, imagination may be the most critical and the hardest to find in a bureaucratic system.

In the Guidelines for this subject what is described as 'the field assistant' is given an important role. A great deal depends on the quality and training of this man (or woman), who is assumed to have a group of five to ten villages to serve. The crucial link between this officer and the farmers (and village generally), his place in the official hierarchy, and the training and management he needs are dealt with in Chapters III, IV, VI, and VII below. It is enough to say here that he requires social skills, and can refer upwards for more specialised technical skills; and that he requires close, personal support from higher levels.

Guidelines

(1) In an endeavour to raise the output and incomes in a local area (whether by 'programme' or 'project') or to open opportunities which only a few have grasped to a much wider section of the community, diagnosis should always precede any formulation of a programme, and guide it.

(2) The standard system of reporting is unlikely to give all the information needed, or to throw up suggestions which are both imaginative and feasible. Some special action is therefore needed.

(3) The action suggested is the formation of a small team, of varied skills, composed as far as is possible of staff who will subsequently have a direct responsibility for implementation. The basic unit for diagnosis is the village (or comparable settlement or group). It is easily extended to a group of neighbouring villages in similar ecological conditions, but with an eye for village-level topographical or social differences.

(4) *The social picture.* The local field assistant, through his contact with farmers and the life of the village, is the first obvious source of information on social and institutional issues — the existing 'leadership' (as to economic matters), the working and coverage of credit, co-operative, and other institutions, the degree of dependency, factions, etc, and the issues about which the smaller farmers and the poor

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complain. In the case of communities outside the main cultural pattern¹, some special help (social anthropology) may well be needed.

(5) *Economic issues.* Rather more specialised help may be needed, from a graduate agricultural officer with farm management training, and with some help from an agricultural economist. The patterns of farm size and tenure, net farm incomes, labour supply and peak needs, markets, and prices of inputs and outputs will be central to his concern. He will however also be concerned with off-farm earnings, employment available, migration to employment, and with the use of draft animals and possibilities of animal products. Against this information, and in consultation with farmers, any new proposal will have to be tested.

(6) *Engineering and investment.* One team member will be needed to look at possible minor investment in improving the physical environment, with special attention to water (harvesting, flood control, minor irrigation, drainage), to land-shaping, and to all-weather roads, bridges, culverts, etc. Availability of engineering staff for this is vital.

(7) *Services.* All team members should pool knowledge of the efficiency of services — extension, input-delivery, pest-control, veterinary, domestic water, and minor health.

(8) *Staffing.* The minimal team (field assistant, agricultural and farm management officer, engineers) should be mobilised from the staff resources of a sub-district (40,000-50,000 population) with supervision and specialised help from the district. Additional specialised help could come from a university (economist), a research centre (crops, animals), a technical college (survey, boring). Many countries are becoming rich in young university and technical college graduates. This resource should and could be better used. It would be advantageous to give them practical experience in the rural area (as against 'urban bias' and too early devotion to academic research). It is of great importance to increase the cadre of trained personnel for diagnostic work at all levels. In some countries the use of foreign consultations has pre-empted this opportunity, and this should be remedied.

(9) *Mode of operation.* This suggestion of a diagnostic team applies where a fresh total look at an area is decided upon. But a one-off 'diagnosis' will never be final. A process of constant monitoring and revision of local programmes, whether new or existing, is always

1 I.e., with a quite different sociological (and sometimes ethnic) habit.

needed, and provision for such monitoring needs to be made in staff-training and in operational duties. The establishment of a contact group of farmers in each village would be an important aid to the monitoring process, operating through the local field assistant.

(10) *Time and coverage.* It is impossible to lay down how long a team should take to make a preliminary diagnosis of, say, a group of ten neighbouring villages. They may wish to make a quick general reconnaissance and then return to more detailed diagnosis. But a target of eight weeks for the first group and considerably less (assuming *some* similarity of conditions) for each of the other four groups in a sub-district of fifty villages should enable the whole sub-district to be covered in about six months and programmes to be devised and trials in progress in many places within a year. As the team moves from one group to another, the local field assistant will remain as a contact in the already-covered groups.

(11) *Organisational implications*

(a) The district agricultural officer should supervise and support teams operating in the district.

(b) It is important that the engineering functions (water and roads) should be adequately represented at the 50,000 population level.

(c) The district authorities must have discretion (within financial limits) to vary and adapt programmes to locally-found needs (see Chapter XIX on Planning).

(d) At least one more graduate officer may be needed at sub-district level.

(12) *The contribution of farmers. Officials and experts can never do this job by themselves.* The village people have two thirds of the necessary information in their heads — they are 'living data-banks'. They know not only the peculiarities of each field, but the history of what has been tried before, the extent and cause of faction, why they do what they do. They should always be partners in the process of diagnosis. In the last resort, it will only be the efforts of local people which can do the job. The contribution of officials is in: (a) technical knowledge; (b) technical imagination; and (c) subsequent support (investment, credit, inputs).

II Small-Scale Investment

General Argument

This Chapter interrupts the sequence between diagnosis and consultation (above), and the subsequent organisation of farmers (below) because investment may be an essential preliminary to action and often a focus round which *the first farmer groupings can grow*.

There are a number of situations where small-scale investment may be critical. First, farmers may already have exhausted the possibilities of their own micro-environment, in so far as they know them, and in so far as they are capable of modifying the environment without external help. If there are possibilities unknown to the farmer (eg the introduction of drought-resistant fodder crops or economic use of a plant or trees which has industrial or other applications) there will be need for pilot trial investment. In so far as a change in the environment is possible (eg a very large range of water-harvesting, gully and erosion control, stream diversion, drainage, etc, often a in hill areas, sometimes in deltas), micro-survey and minor engineering investment may be critical.

There are other situations where productivity could obviously be increased — and farmers know it — simply by an all-weather feeder road or bridge, etc. There are also situations where services to farmers are badly hampered by lack of *administrative investment* — mobility of staff, transport for materials and input supplies, telephone communication — with the result that promised and necessary services are not performed, or arrive too late for use, stultifying the whole extension effort.

Guidelines

Staffing and finance

(1) The main difficulty in physical investment is to apply engineering or other technical staff and obtain any necessary drawings or specifications quickly and cheaply; national road, works, or irrigation departments are usually unenthusiastic about minor works, and their supervisory, accounting and procurement systems are expensive and slow to use for large numbers of small items. Special funds, earmarked for minor investment, provision for local procurement and simpler supervision and accounting for small jobs are needed, possibly a special agency (eg ALDEV in Kenya, People's Works Programme in Pakistan), or an adequately funded division of an existing department.

(2) Such minor works can often involve voluntary labour, which in turn needs supervision and possibly hand tools, and possibly 'food for work' schemes.

(3) The cost of improving the executive system for small-scale investment may appear to be high on a national scale. But against these costs must be set a steep increase in returns to normal extension costs, which are often totally wasted for lack of crucial physical improvement of the farming environment or timeliness of service.

(4) There is no point in extensive technical surveys which arouse expectations locally, unless the government is willing and equipped with staff and finance to follow a survey by investment.

(5) Diagnosis followed *quickly* by minor investment or pilot trial will not only set the scene for better programmes, but help greatly to convince the farmers that the government means business.

(6) Proposals for minor investment, agreed by local people and checked by the technical team, should go forward from the sub-district for approval and incorporation in the district programme (See Chapter XIX below). Naturally, these micro-programmes and investment proposals must be checked in case there is conflict, for example with land-use policy or some Area plan. Such checking should not be mechanical, but lenient. A proposal which really suits local people should not be rejected unless the conflict is of major significance.

III Types of Community, and Action Implications

General Argument

The approach to communities¹ is a far more difficult issue than is often believed. Faulty approaches can easily create great suspicion among villagers; elicit misleading responses (eg from large farmers or ambitious political candidates); become involved in factional quarrels; and attract opposition from the locally powerful by dealing only with the poor or weak. Although 'approach to farmers' is necessarily a part of diagnosis, it is worth a separate Guideline because of these difficulties.

In the approach to farmers, and particularly in any effort to stimulate the formation of some group organisation, however small, the nature of the (geographical) community, its structure, functioning, divisions, and (mixed) attitudes will obviously be of great importance. Various ways of categorising or typologising communities have been attempted, all with limited validity. Areas (rather than communities) have been categorised by their immediate, delayed, or only long-term development potential. A categorisation from 2,000 village studies has used various criteria (distance from a main road, demography, distribution of incomes among members, etc) as a means of finding significant correlations with nutrition, employment, etc. Others have used typologies based mainly on the degree of 'modernisation' and attitudes to contacts with the outside world, on an evolutionary scale running from 'primitive', magico-religious, traditional subsistence societies to highly cash-conscious, modernising, more individualistic societies. Social anthropologists tend to classify on a structural-functional basis, looking at the various and criss-crossing institutions and customs by which survival for the group, resolution of internal conflicts, and succession to land or power are organised.

Clearly there are a dozen different ways of classifying communities, both according to the special interests of the classifier (economist, sociologist, political scientist etc) and for special purposes. However, as a commentator has pointed out, typologies are not laid down by God or by Mother Nature, but are invented by man *in order to answer specific questions*, or to illustrate a specific hypothesis; it is not therefore

1 The word 'community' means here some identifiable geographical settlement or mobile group which has more significant internal than external relations and is, in some degree, mutually dependent. It does not imply homogeneity in the community or the absence of class, caste, or even ethnic subdivisions, factions, or dependencies.

necessary to produce an all-embracing scheme of classifications. What we want to know, in the context of this paper, is 'How will various groups in a community react to proposals of a certain kind which are concerned with innovations in agricultural development?' In so far as we are forced to classify, the classification must refer to differences in response to such proposals due to the way in which particular characteristics of different communities *affect the proposals*. We need not be concerned with classifying by response to other questions, except at the margin of our enquiry.

In rough outline, the criteria needed for our purpose are:

(1) How free is an individual, or a particular group of individuals, in a given community to respond in terms of their own interests and wishes, without deference to others (or to corporate 'public opinion') who have some form of power over them (eg landlord, creditor, caste society, etc)? This question could also be put from the negative side, ie 'what constraints and pressures are there in the given society, by which an individual or group would be prevented from making a 'free' response?' Constraints occasioned by individuals could be referred to as 'dependency' and those from groups, or the whole group, as 'inter-dependency'.

(2) How strong are other constraints, arising from within the individual — fear of crop failure, indebtedness, etc.?

(3) How strong and relevant are any religious, magical, or cultural constraints (eg refusal to eat eggs, kill cows, '*adat*' (Indonesia-Malaysia), and roles of men and women in agricultural work)?

(4) How widespread within the community is confident contact with 'Outsiders' (government staff, external or urban institutions)? Are they seen as necessary and helpful or as cheating and exploitative? Is contact direct, or only through 'brokers'?

(5) What is the general level of prosperity? Are there 'modernising' farmers within the community? What is the extent of knowledge of scientific technology; what has been the experience of its use?

These questions could be summarised as (1) socio-political constraints, (2) economic risk-aversion, (3) religious and cultural constraints, (4) degree of 'modern' knowledge and contact with the outside world, and (5) degree of existing change within the community.

In general terms we can see from multiple experience that there is an evolutionary process from a society which is 'primitive', totally inter-dependent, culturally and magico-religiously constrained, relatively isolated, and pre-scientific to one in which all these factors are greatly weakened, except for certain cultural ones, but in which personal and political dependency and class interests may have appeared and strengthened, and in which economic risks and gains are more objectively weighed.

We are concerned in this chapter with achieving fruitful contact with farmers and stimulating farmer organisation — hence the social and attitudinal criteria. Classifications by economics, technology, or environment are the jobs of the relevant experts, which will be fed into the final decision on action.

Guidelines

(1) In *primitive customary communities*, with a distinctive social organisation, the first approach must necessarily be to whatever group is recognised as competent to discuss such matters with outsiders (elders, possibly chief or chief-in-council, headman, religious leader). The approach must be made by a knowledgeable person who speaks the local language. An ambassador/spokesman may therefore be needed to introduce and speak for the technical team. It is essential that this spokesman should be thoroughly familiar with local custom and organisation, and he should pre-brief the technicians. Secondly, it may well take some time to identify an area of activity where easy improvement is possible with *minimal* affront to custom. This is a confidence-winning operation, and the activity may not even be agricultural at all (eg drinking water, health, fencing against animals, etc). In particular, the *main food-crop* may be hedged around with customs highly resistant to change. The critical issues here are firstly the spokesman, and secondly identification of an easy initial confidence-winning success, probably in a minor activity. The introduction of this activity will provide opportunity to judge the next step in social grouping and technology. Earlier social/anthropological studies should always be used.

(2) *Very poor sections*. Such groups may be found either in very poor environments, or as a particularly depressed group (sometimes with an ethnic difference) dependent upon a more prosperous group. There is bound to be social tension here, since very poor sections are often in a servant relationship to better-off individuals. They seldom own land, or

at most a small patch, are share-croppers or casual agricultural labourers; they are highly dependent, may be paid for services in kind (food, etc). Women often also work similarly. Critical issues are: (a) as far as possible to forestall objections by the better-off by explaining the presence of a team in the village, and, if possible, providing or demonstrating a technical benefit to them also; (b) if the very poor are surplus even to service requirements, to find them alternative employment: (i) is there any government or waste land on which they could be employed? (ii) forest employment? (iii) public works — road-making, maintenance, irrigation, anti-erosion work, house-building, etc? (iv) small animal production (goats, pigs, hens)?

(3) *Modernising communities — early stage.* This is a large and very varied category. It is largely represented by groups where *some* advance has been made but which have not been fully responsive to earlier development programmes. Contact here will be at multiple levels — the 'progressives' and the 'unprogressives'. Identification of reasons (constraints?) for only moderate progress will be critical, and for this a quite wide spectrum of opinion needs to be covered.

In such communities risk-aversion may be high among the (wrongly so-called) 'unprogressives'. It is not only a question of the narrowly economic risk of accepting a credit-debt on a new crop or variety as yet untried by the farmer himself; for this can be reduced to some extent by initially introducing crops with only very moderate requirements of purchased inputs, by increasing organic inputs and other improvements which are readily understood. Risk is also social; in communities with a strong hierarchical system, *any* challenge to local power will be regarded with extreme anxiety by dependent groups, and direct consultation with them may be difficult.

Some forms of development action may not, in fact, be challenging, and in some cases at least some of the larger and middle farmers may be co-operative; for honest leadership is not lacking everywhere. What is important is that any innovation suggested to the poor should firstly be aware of their difficulties and secondly be proven to be of sure value, for failure in this context will set the clock back a long way. To make a direct challenge to local power, without the capacity to give continuous protection — and few governments can do this — is asking for trouble.

The implications for group formation are dealt with in Chapter IV. The essentials here are: (a) wide consultation; (b) variety of improved solutions, so that no major group, and especially the small/poor members, are excluded; (c) very frequently minor investment (eg on water-control) around which new activities can grow; (d) constant

supervision and reports to the technical team by the local field assistant, and development of a contact-man, or group, from the villagers for *each* activity. These, together, may gradually form a larger progressive group in the village as a whole; and (e) often, advance by small, sequential steps as confidence grows.

(4) *Modernising communities — plateau stage.* It is quite common to find communities (eg in West Africa, but also in Asia) which have emerged from subsistence on the back of a single cash-crop and reached a plateau of moderate but limited performance, often with other crops (including food crops) at an unchanged and poor level of production. Further, since there has been this limited success, traditional structure and custom may be unmodified. Diagnosis has here a special importance in identifying a possible new crop, or activity, or investment, or major advance in an existing crop or technology which will restart the process of growth and change. Farm management and technological advice will be critical.

(5) *Highly successful communities.* There are organisational implications in those cases (eg Indian Punjab) where farming has become highly successful, commercialised, and sophisticated, and where farmers may be much more sophisticated than the usual run of simply trained field assistants. Management, large-scale commercial enterprise (by co-operatives or other means), industrial linkages, and sophisticated technology become important here. Extension staff will need to be more highly trained, access to agricultural universities¹ and specialised staff will be more important. Government will be less concerned with simple consultation, stimulation, and subsidised services, and more with organisation and control of a system which has developed its own sources of enterprise and dynamics. Consultation and analysis will be at a more centralised and sophisticated level, dealing with major co-operatives, supply systems, price problems, quality control, and economic analysis. But there will also be some specially weak groups who will continue to need protection and simpler service, and they are particularly likely to be forgotten in the general concentration on successes.

(6) *Commodity-based communities.* There is a sub-variety of the 'plateau' stage, but often richer and apparently more successful. It refers to communities producing for example, tea, coffee, sugar, tobacco, rubber, etc, where the technical management of the single

1 Or colleges, faculties, etc.

crop, the processing and the marketing are controlled by a large modern company, or co-operative, or public Board with virtual monopoly control. The two problems here are the neglect of other crops and the exclusion of a sometimes considerable section of the community from 'out-grower' membership — for example, farmers who have not enough water-access for sugar production, etc. These excluded sections are often neglected by extension staff: diagnostic survey and consultation should pay particular attention to them.

(7) *General.* The foregoing paragraphs have picked out only a few 'types' of community along the range (which is sometimes also a time-scale of development) from primitive to highly sophisticated farming communities, with some indications of the special problems upon which there needs to be consultation with farmers and particularly with the less successful sections of a given community. It is clear that patient consultation and the devising of small, viable advances is both most important and requires most *social* skill, as well as technical imagination, at the earliest stages and with the poorest sections; and that, as we move towards more commercialised situations, the degree of economic and technical expertise which is needed in field staff rises, and the call on social skills tends to fall. In most countries it is, unfortunately, true that the training and staffing of extension forces has been mainly technical, with neglect of the social element of their job. In consequence, the field assistant with *only* technical training, and that at a simple level, tends to be weak at both ends of the development scale — in social skills, in dealing with the poor and backward, and in technical sophistication in dealing with the successful.

Attempts to provide the social approach by putting in an additional (community development) officer alongside the extension man are expensive and have proved unsatisfactory. Inclusion of a social element in all extension training, better technical support from sub-district, and more selective deployment of staff, according to the degree of advance of farmers are all required.

The main relevance of these Guidelines is to emphasise that differences in the *social*, as well as the economic and technical situation of farmers imply different points of attack, different deployment of staff, and a different balance of skills.

IV Farmer Groupings

General Argument

There are two main reasons why some grouping of farmers for development action is desirable. First, it is convenient for official delivery of services and supervision, and in theory a benefit to farmers, since full services could not be delivered officially direct to every individual. Second, group formation can be a prime method of eliciting dynamic motivation among farmers themselves to take an active and increasing share in the design and management of their own development process. These two reasons can conflict: excessive emphasis on convenience and supervision may strangle local participation, by imposing a group system on all farmers, many of whom find it useless or unwelcome.

There are multifarious types of group. They can be analysed by size — small, face-to-face groups or larger, committee-run groups, leading to organisations. Small groups are naturally sections of a local community, large groups may (at least nominally) cover the whole local community. Groups can also be analysed by the extent to which they are self-managed or externally managed — this is a range of situations, not two distinct types except at the two extremes of the range. There is a rather similar range between self-appointed or customarily sanctioned groups (age grades, lineages, credit clubs) and groups externally established, possibly by compulsory elections, usually for modernising (Malaysian Farmer Organisation) or administrative (Indian Panchayats; local government generally) purposes. (This last type of group will be dealt with in Chapter V).

Clearly, Guidelines on this subject would have to take into account the four main criteria (physical/environmental, technological, economic and social). Within these criteria there are certain main issues or problems which confront the administrator in handling the whole subject of group formation and management. These main issues can be divided under three general headings.

(1) *Social and political.* The formation of a new form of group, or modification of the aims and functions of an existing one, is always a *political* event. A sectional group may threaten other groups; a whole-village group, committee-run, raises internal issues of social, economic, and political power. Two rather different problems arise from the political and social reverberations from group formation. First, in a highly hierarchical society, the powerful section of the hierarchy will tend to capture and

control the main benefits of the group activity. This is a constant problem for any administration which intends to involve and benefit the poorer and weaker sections. Moreover, in the early stages of developmental change, administrators may get little help from the poor and weak, who are extremely nervous of challenging the social order; for, however oppressive it may seem to be, it at least sustains a low level of life which conflict might destroy.

Second, non-indigenous institutions (eg a formal co-operative) do not easily work in the way intended. Where patronage/dependency are a deeply embedded tradition the members of the new institution may bring to it the assumptions of their older situation and relationships (lineage, tribe, caste, patronal system). Instead of loyalty to the institution *as such*, they expect favoured treatment from 'their' big man, party boss, extended family, etc, and the patron will have to produce such benefits if he is to retain his influence and clientele. Thus the institution, so far from being an equitable association of equals, becomes an arena in which one section or faction struggles with another for power and influence. It takes time for a man to distinguish his role and obligations as a co-operative member from his role as a fellow tribesman, or cousin, or client, or patron in some form, or party politician.

Some administrative manoeuvre by the central government can alleviate both these problems. Obviously, such manoeuvres cannot change a whole structure overnight — and in some countries there may be no political will to use them. But there are very important areas (perhaps covering the majority of the poor in the Indian sub-continent and parts of South East Asia and of Africa) where the administration is, at least formally, charged with a duty to serve the poor, and where major schemes with that purpose fail not least because of a thoughtless choice of methods and institutions which play into the hands of the more powerful local sections. This can, in some degree, be avoided by giving administrative and political support from the centre directly to the weaker sections, by the formation of smaller groups in which experience and confidence can be gained, and roles better understood, before the launching of any larger institution with its necessarily small and probably élite governing committee.

(2) *The relationship of officials to groups.* The attitude of government policy and government staff towards groups is obviously important. Even in the initial approach to a local community quite a significant difference in response and motivation will depend upon who is approached and used as a channel of contact — the headman, or a council chairman, or 'model farmers', or small farmer groups. No doubt, if only for courtesy, the 'leader' must be called upon first; but it

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is vital that other sections should also be fully consulted, and perhaps organised.

(3) *Motivation.* In all discussions of groups the psychology and motivation of group action will always be one element. Small, face-to-face groups with a common target may achieve high cohesiveness and morale; initial success even in a simple venture may be important; rivalry or even enmity (eg farmers *versus* merchants) may have unifying results. Issues about 'leadership' will always arise.

Finally, if a group does not quickly die or become moribund, expansion and success will gradually alter its tone and values. Economic efficiency and good management may become more important than the morale of mere cohesiveness; leadership may become diffused into more specialised channels; growing external relations may temper the intensity of group awareness and rivalry without damage to functional performance. The group is then becoming *an organisation*. Thus the large *versus* small controversy may resolve itself, not as a matter of alternatives or 'trade-offs', but as a matter of sequence from small to large.

Guidelines

(1) *Social and Political*

(a) In traditional (tribal etc) societies relatively untouched by modernisation at least in their central social structure and culture, contact and group organisation will have to proceed through whatever channel is acceptable; readymade 'modern' institutions are most unlikely to work. Winning confidence may be slow but is an essential preliminary, and may be achieved locally in many very different ways, seldom related to more sophisticated general programmes; confidence is usually in individuals and may well be lost if they are transferred.

Traditional groupings, formed for special purposes, often intermittent, often with closely defined eligible membership, are very seldom manipulatable for modern functions. There may be occasional exceptions (eg savings/credit groups) which can play their traditional role in a modernising context without radical change.

(b) In strongly hierarchical societies which are already partly modernised, whole-village groups (eg co-operative open to all members) or whole-village elected councils will not be able to alter dependency at an early stage. *The committee leadership will simply recapitulate the existing social power structure*, even if under-privileged groups are compulsorily

represented; for there are other ways of exerting power outside the committee.

Accordingly, a more direct approach has to be made to the poorer sections. Perhaps the best way of doing this is by stimulating the formation of small, informal groups consisting only of those directly using a particular technical facility. Such groups may be formed round a small investment (well and pump, small water diversion, milk collection scheme, small animal production scheme, etc). Each small group should initially be treated separately as to credit, labour input, etc with collective responsibility.

While such groups should be totally involved in the formation of any scheme, contributing their local knowledge and their energies to it, they will need continuous service (rather than management) and advice (rather than supervision) in the early stages, and particularly in contact with the external world. It is this supportive rather than managerial or supervisory *attitude* which is critical at this stage. It is not a question of substituting government for local patrons, especially in the frankly exploitative role which many local patrons adopt. It is a question of non-directive support and the gradual growth of confidence. It would be absurd to believe that the weak, in their weakness, can march ahead without such support.

(c) *Special agencies?* Should special administrative agencies (Small Farmer Development Agency, India) be set up to pay special attention to the weaker sections? There are at least two clear arguments in favour. First, at least the poorer sections are identified, not overlooked. Second, since more than half the problem lies in the *local* hierarchy and its attitudes, there is a case for *centrally* directed intervention. The argument against is primarily the danger of administrative confusion (two systems, one for 'all', one for the poor only). But as a starting mechanism the special agency has a role to play; and it may well be that, after a few years, it will have shown the way by which the older system can be revised to cover all instead of only some of its constituents. Intervention by the centre is, of course, particularly noticeable in immediate post-revolution situations, where the central power has changed and sets out to reform the periphery; or where national elections, less easily manipulated by local interests, are effective and give a mandate for reform.

(2) *The evolution of groups*

(a) In traditional (tribal etc) areas, which have first been approached with minimum disturbance to custom, the effects of change (technology, more official and commercial contact) may render the old

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system awkward and finally unacceptable; and the society may gradually move nearer to the main stream of development organisation. Timing of the moment when a sufficient section of the society wish this change will be critical.

(b) In the main stream the indications are that first action should be in the formation of small, facility- or action-related groups, informally organised and supported by investment.

(c) Success in this first stage may well result, either for technological or commercial reasons, in consolidation of small groups into a larger one ('Farmers' Association', co-operative, 'Farmer Service Society'). In the early stage of larger groups, external management help will probably be needed (commercial operations, accounts), and more formal rules, if possible self-formulated and sanctioned, will be required.

(d) Gradually the larger group may move towards 'an organisation' — ie a system in which management functions are even more important, and in which the criterion of success, efficiency, and good service to all members begins to outweigh group solidarity or 'representation'. Representatives become more a check upon management's performance and equity than group leaders. The really distinctive contribution of co-operatives is at primary level, in achieving the first step of joint action. At secondary level co-operative 'unions' are only worthwhile if they are more efficient than either the free market or a marketing board, or company. Moreover, if representative control by co-operative members is carried to a high level (district, or even higher), the controlling group are much more likely to become an elite group, often with political and other external ambitions, than are the local staff of a marketing board, or indeed ordinary merchants.

(e) When the organisation stage is reached, government can largely retire from field management of the enterprise into a role of occasional supervision, regulatory functions, and logistical and economic steering (bulk supplies, prices, etc).

(f) A very important special case occurs where a group (eg a co-operative) already exists but is moribund, inefficient, or grossly inequitable. This can go on for years. Vigorous action to disband and start again from small interested groups, probably supported by an official service centre, may become an essential escape from stagnation.

(g) In summary, the sequence suggested is (i) Small technically-oriented

groups; (ii) Possible amalgamation into a primary co-operative; (iii) Formation of a secondary organisation which may be co-operative in form, but can equally be any form of Board or wholesaling system.

The criterion for is efficiency rather than representation.

(3) *Continuity of staff.* It is worth emphasising once again the fatal effects of frequent transfers of field staff. If, just as some mutual confidence is established between farmers and field staff, the staff member is abruptly changed, the whole process of building confidence and participation may have to start again from the beginning.

V Local Elected Committees and Councils

General Argument

Local elected bodies have been set up for a variety of purposes, and it is often far from clear which purpose is dominant in a particular case: indeed, the structure, asked to perform several different functions, may have serious internal contradictions.

The main purposes may be:

- (1) *To elicit participation through local 'leadership'.* The intention may be non Party-political (India, at the start) to revive concepts of village sovereignty in its own affairs (Panchayati Raj, or village development committees in Africa). There is a broad, democratic, political (non-Party or one Party) aim here, in accustoming villages to civic responsibilities and the exercise of a local vote.
- (2) *In one-Party States, to use the Party as a local dynamo* (committees built round local Party leaders), and to form a training ground for Party leadership nationally. This has a link with (3) below. It is common in Africa.
- (3) *To de-bureaucratise local administration.* This objective says something about bureaucracy (inflexible, lazy, authoritarian, politically insensitive?), but almost nothing about the content of the alternative.
- (4) *To devolve government minor functions* to (tiers of) 'local authorities', with prescribed powers and revenues — ie 'local government' in its western sense.

It is clear that these functions imply different ways of establishing and empowering local bodies, with different results. The first (local leadership) and third (de-bureaucratising) are likely to result in local dominants being elected as 'leaders'. In multiple-Party states this will lead to covert or overt Party politicisation (as it has in India), and probably Party divisions (factions) in local communities.

The second (one-Party) is partly, if not mainly, designed to avoid these factional effects by a central political government determined to control policy throughout the whole nation. It is also designed to weaken what was felt to be a too-independent 'power' — the provincial

and district administration. It is a form of 'guided democracy' (where it is not dictatorship) in which 'participation' is allowed only on Party lines.

De-bureaucratising, as its negative implies, leaves an awkward vacuum in full-time trained execution. If the bureaucracy at district level and below is fully transferred to an elected authority, there is a gap in central control in planning and expertise. If left in parallel, local officials serve two masters and real responsibility rests nowhere. Tanzania attempted to 'politicise the bureaucracy' with confused results.

Finally, full 'local government' with limited statutory powers (including revenue powers), and its own service of officials may well be non-developmental and non-participatory in any real sense at the lowest levels. The more that development becomes technical and requires area planning and controls, the higher the tier in which real power exists, and the less contact with, and energy in, grass-roots activity. Although this is a problem for government too, it is generally much easier for government to provide the necessary technical back-up and finance resource both of expertise and of finance.

It can be argued with some force that, since development (which provides benefits and often subsidies) is bound to be of political interest locally, it is essential that a political (ie elected) council should control it; such a council legitimises and regulates what might otherwise be merely intrigue or faction. But (except in military dictatorships) there are already channels for legitimate political action, through local Party members, or the local MP. There is much to be said for keeping the channels of political action and those of technical production and financial services separate up to the point where the government itself combines them and where political leadership clearly dominates and instructs the executive arm. Rather different arguments apply to general social and infrastructural ('municipal') services.

Guidelines

- (1) The strategic decision is a central decision on objectives. For what precise purpose is the committee to be constituted? If multi-purpose, are all the purposes compatible with the structure?
- (2) If a principal objective is to elicit active participation and growing self-reliance at field level, the critical point for building an active system is the *lowest* point, where participation is most direct and personal and least through nominal 'representation'.

(3) This involves, initially, making the local bureaucracy developmental (quite different from politicising it), in three ways. First, its style must be to stimulate and serve local small groups. Second, the field staff needs active leadership, not merely supervision/discipline. Third, there must be considerable devolution of executive and financial authority from the centre to ensure flexibility in local programming, and a higher proportion of the most able staff must serve longer in the districts.

(4) Active participation at the village level will be through membership of a variety of largely self-formed functional groups, officially supported and served, but not heavily regulated.

(5) Such a system, of small functional groups at village level, would be stimulated and supported by the extension and other field staff (eg dairy supervisors) from the sub-district level. Their activities would be based on the original consultation and diagnosis, and serviced by a local farmer service centre (Chapter XVII), and their programme (supplies, minor investment, marketing channel) would be approved at sub-district and, modified if necessary, would form part of the district plan. The membership of these functional groups could contain both small and larger farmers actually involved in the particular function (water supplies, milk production and collection, etc), so that participation is direct and personal. If convenient, they could become small primary co-operatives, small enough for all members to attend meetings (eg Comilla).

(6) Such a system has considerable strength in active participation and in the marriage of technical programming with local participation.

(7) This does not, however, deal with 'elected local government' and what are often called 'municipal functions' or the functions sometimes carried out by a 'headman' at village level, eg local road maintenance, market rules, sanitation, the resolution of disputes at village level. These are functions both of community management and of the field execution of social policies (the supervision of schools, health and sanitation, village streets, etc) which are delegated in some form from higher levels of government. These functions cannot be neglected.

(8) The ways in which these community functions are carried out differ very considerably, from country to country, not only by long-standing tradition but also because of new systems initiated by national governments. The country concerned may be a pluralist democracy, or

a one-party system with party members and organisation right down to village level, or military government, or a system of compulsory co-operative organisation (Egypt, Israel), or a system with existing village, sub-district and district councils (India), or a system with district or provincial governors, with sub-governors at lower levels down to 'headman' (eg Thailand or Indonesia).

(9) Some of these systems strongly reinforce the power of local dominants; others, in intention and by their constitution, are more democratic in form (eg the constitution of the Panchayats in India).

(10) The conclusions of these Guidelines are, therefore, general in form.

(a) There is certainly a need for such community management and performance of minor delegated social services and regulation, at village and at sub-district level.

(b) The constitution of councils for this purpose by election should be clearly democratic, in the sense that all levels of society should, compulsorily, be represented on the council, including labourers, some women members, etc.

(c) Their functions should initially be clearly and closely limited to municipal action — the regulation of sanitation, streets, fire-protection, school management, minor health protection, law and order, etc; They should also be *distinguished* from production and production services, for the reason that these developmental programmes and services firstly need special expertise from outside the community (ie from governmental services) and secondly have to form part of programming and planning emanating from sub-district and district level, and depend for their execution on supplies and often on processing, marketing, and equipment services from beyond village or sub-district control.

(d) In many cases there appears to be no need for such councils at District level firstly because they are much less genuinely representative and participatory — the distance (in a sociological as well as a geographical sense) between the elector and the representative is very great; and secondly because the functions at district level are highly complex and technical. A periodic consultative procedure between the governmental staff at district level and the chairman of sub-district councils is, of course, essential.

(e) The implication from paras (c) and (d) above is that agricultural *development* planning and execution should initially be kept in the hands of the governmental staff at district and

sub-district level. This part of the district staff would look more like a district development authority than a council, even if it were held to be desirable that a minister should preside over it, with the district development commissioner as his chief executive. *The need for first rate administrators in these district development posts is as high as ever*, and more acceptable now that the colonial era has passed.

(f) There is an important time sequence here. As the small, functional, co-operative groups at village level gain self-confidence and widen their membership they will come to play both a more important and more widely representative role, first at village council and later at sub-district councils. It is possible that, in some countries, the time will come when more developmental powers (and staff) can be transferred to the councils. But their democratic nature will only be maintained if the time of such transfer is delayed until a far more wide-spread security and self-confidence has been built up among the presently weak and poor members of local society, through the successful operation of functional groups and of local programmes, so that they can pull their weight and exercise a due influence in these more general councils.

(g) Where a local council is mainly a Party-inspired dynamo for local action, it is still important that there should be considerable delegation to it from the centre, so that it can respond both to local opinion and to local developmental needs.

VI Forms of Contact with Farmers

General Argument

Although the structure of administration, including the national level, is dealt with in Part 6 of this document, the management and structure of field services from district level to the farmer is clearly based on the implications of the preceding chapters, so that it can best be handled here and in Chapter VII.

There are two supreme difficulties in the organisation and management of field staff. First, the vast numbers of individual farm units: this is an issue of *contact*. Second, the range and complexity of issues in field development; and this raises issues of *staff quality and staff management* (VII).

Contact. Questions concerning the differences in response to be expected from different social/economic types of geographical communities and of corresponding differences in the type of development approach needed were dealt with in Chapter III; and mainly sociological and political issues in forming groups of elected councils in Chapters IV and V. But those chapters did not deal with the numbers, quality and training, deployment, management and motivation of the men and women who undertake this work of contact, organisation, advice, and support. These are mainly the official field personnel from all departments with field contact; but, especially at the lowest level, we must also include not only voluntary agencies but also the individual farmers and self-managed farmer groups who are the essential counterparts to the officials and are actual developers, sometimes doing much of the work of extension by their recruitment and leadership of an expanding section of the farming community.

We take it as given that no country can employ an extension staff so numerous, and yet adequately trained and motivated, as to do the whole job of village organisation and extension by direct contact with every individual farmer. That many farmers have not been visited more than once in twelve months merely illustrates this.

Various systems have been tried to solve or alleviate this problem or parts of it.

(1) The induced formation of a co-operative — mainly for services of inputs, credit and marketing through a single channel: not usually for technical advice.

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(2) The formation of a farmer association. This may be associated with a co-operative for the commercial functions; but it may also include technical and managerial functions (Taiwan and Malaysia), and even employ and pay extension staff (Taiwan).

Both these are 'whole village' organisations and may have higher managerial tiers right up to state level.

(3) The formation of usually smaller, less formalised farmer groups built around a facility or function. The village groups in the Pakistan 'Markaz' programmes are built round small-scale investment projects.

(4) Another variant is the 'Peer Group' scheme in Udaipur (India), where a voluntary organisation has recruited and trained (simply) a young man from each of 25 villages to go back and recruit 15 to 20 of his 'peers', who, as a group, pioneer innovations in the village with support of technical staff, and with periodic discussion and training sessions at the Udaipur headquarters.

(5) 'Model' (or 'Progressive' or 'Master') farmers. These are individuals whose farm may be used for demonstrations, who carry messages from officials to other farmers, arrange meetings, and are regularly contacted. There are sub-species — eg the 'Gramsahayaks' in India, who are farmers/assistant extension officers and paid a small fee; or 'animateurs' (Francophone Africa) who are young men picked out of the local community, lightly trained and sent back as agents of the extension service, delivering official policies.

(6) Various schemes for using youth organisations as village catalysts and organisers (Indonesia) or for recruiting young graduates for village service (Peoples Rural Reconstruction Movement in the Phillippines; Tilonia Social Research Centre, Rajasthan, India).

These varied systems can be roughly classified as (a) 'whole village' groups, possibly multi-tiered; (b) small functional groups and internal organising groups; (c) farmer-extension assistants nominated from outside; and (d) external volunteers (youth, graduates, etc).

Guidelines

(1) 'Whole village' groups, particularly when they assume major commercial and managerial functions, belong to the more advanced stages of village development. Attempts to organise them at an early

stage are not, therefore, recommended. They are unlikely to give much benefit to the smaller farmers and weaker classes until the latter have been helped in other ways and can stand up for themselves. Once established with independent authority extension staff may be unable to amend their performance, and may be faced with a stagnant or very inequitable situation for which they are not responsible.

(2) Whether such groups should be encouraged to develop a two- or three-tier organisation should be judged by a criterion, not of representation (which is indirect and liable to abuse) but of efficiency of service compared with alternatives (crop Board, merchants, etc).

(3) Where such groups are already established, and are *de facto* excluding the poorer sections in a community, extension staff may have to organise the poor separately, possibly with the aid of minor investment, rural works schemes, etc.

(4) *Small functional groups.* These are probably the easiest for organisation by direct official contact. But it is not always that a field assistant by himself will be able to start a group, where none already exists. It may need an initial visit by a small team who are capable of identifying a possible project with any necessary prior investment: thereafter the field assistant will maintain contact and progress.

Such small groups can be valuable in many ways — as a 'class' which can visit a farmer training centre or sub-district HQ (Pakistan), to give simple training to young extension entrants (Indonesia), and as a listening post where field staff can learn to listen to both the farmers' problems and their ideas.

(5) *Assistants nominated from the village* ('animateurs', progressive farmers, etc). Although this method has many attractions, the danger is that nominated farmers are quickly seen for what they usually become — assistants to officials, rather than representative farmers; and this will happen particularly where they are used simply to 'sell' officially-conceived programmes, already cut and dried, to the remainder of the village. On the whole these schemes do not have lasting success. The 'Peer Group' system, although starting from a nomination (actually, a selection for training) largely avoids this difficulty, since a fairly substantial *internal* group is formed, and this group can discuss what programmes it wishes to undertake, and only then seeks official support and advice. This is a variety of 'informal groups'.

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(6) *External volunteers.* Intensive village contact is no doubt good for partly urbanised youth or graduate groups. But the benefit to farmers is much more doubtful, unless the incomers bring *real skills* by which they can help farmers to achieve desired ends. Their disadvantage lies in their usually very temporary presence.

(7) *Voluntary organisations* with continuity of contact and concern for quite small projects are likely to establish trust and discover the most helpful people in the village who can influence others at all levels. Their technical weakness, which is fairly common, can be remedied if they are prepared to call in and co-operate with government field staff. Some financial help from government may also be justified for successful projects originating from voluntary organisations.

(8) In general, systems of nominating village contacts or agents are not a substitute for the encouragement of self-formed and self-managed farmer groups, however small; and these groups may themselves nominate a 'contact man' to keep in touch with officials.

(9) This leaves a clear organising function with the junior agricultural field staff, probably initially helped by technical visiting staff. This function has never been fully recognised by the Ministry of Agriculture, and in consequence other ministries (especially Community Development (CD), sometimes co-operatives, sometimes even a special 'Ministry of Integrated Rural Development') have been brought in, with village-level staff, usually causing rivalry and confusion. This issue is dealt with under 'Co-ordination' (XVII below).

(10) These guidelines cover only the *agricultural* function (in its widest sense). There will be other services to the village — schools, health, family planning; these, it is suggested, would emanate from the elected councils suggested in Chapter V above, probably working through the village council or headman, according to national tradition and forms of village organisation.

(11) Finally, the question is sometimes asked 'Is it better to have an army of junior officials or an army of village leaders to organise rural development?' The answer is that both are necessary. Officials can never do the job alone. Village leaders and especially leaders drawn from among the small farmers, cannot do without support, information, and services from outside; and this must be given through field staff as partners with the local leadership.

VII Organisation, Training, and Management of Field Services

General Argument

The fundamental problem of extension at the lowest level is that, especially in the early stages of development, large numbers of staff are needed. They are therefore junior staff, paid at junior rates; and yet their job is critical to the whole success of development and requires at least basic knowledge of an extremely wide range of subjects and problems, as well as personal qualities of tact and initiative. Societies, developed or under-developed, have never been altogether clear how to reward a group of workers whose performance is vital to national interests and who exist in huge numbers (eg nurses, for their skill and care; primary teachers, for personal qualities and dedication; village priests). In so far as relatively high salaries are hard to pay for work which is not directly physically productive and is part of government spending (teachers, extension) all other possibilities of sustaining morale, such as career structure, honourable recognition, and leadership, have to be brought into play. In the main this has not been done for junior extension staff. They work on their own, singly; often in fairly hard conditions; often without adequate equipment; and finally the blame for failures of the superior system is usually laid at their door.

Guidelines

- (1) *Structure.*
 - (a) *Lowest extension staff level* (1:400-800 farmers desirably)
 Assistant extension officer (field assistants) The task is:
 - (i) Contact and discussion with farmers; stimulating group formation;
 - (ii) passing on simple technical information, and possessing ability to demonstrate it personally;
 - (iii) identifying difficulties (not necessarily solving them);
 - (iv) knowing all sources of help and technical advice;
 - (v) clear reporting.

The qualifications are energy, tact, simple technical knowledge, patience. *The degree of technical knowledge and career structure* depend upon the agricultural budget available, on which depends the

volume of training, and the existing output at university or college graduate, diploma, and sub-diploma level. Countries very rich in these can afford to start young college graduates at this level; and they should have a career structure running up to district level or higher, with promotion on *performance in the field* and some in-service short technical up-grading. Countries very poor in higher training may have to start with staff of much less formal education; in this case career structure must be short — perhaps to sub-district only — and salary rewards for performance and seniority will normally have to take the place of career prospects beyond that point; there may be external openings (co-operative manager, credit staff, etc) for the best of these who lack the technical knowledge for higher extension posts.

(b) *Sub-district level* (40,000-80,000 population, 5,000-10,000 farmers)¹

Level (i) Senior sub-district extension officer.

(ii) Extension officers.

Tasks The Senior officer's main tasks will be:

(i) personally managing the sub-district team, including relations with minor engineering and village organisation staff (CD — co-operative groups) and other services at this level;

(ii) relations with district, and administrative paper-work.

The extension officers at this level should be promoted from the assistant extension officer grade, where these assistants are college graduates. Where they are not, some direct appointments to extension officer grade at sub-district level will be necessary; but there should still be some openings for assistants with an outstanding record of success in the field. Their task is to lead and support their team of extension officers. They should be enabled, by training where necessary, to specialise rather more (animal husbandry, pest control, etc, according to their initial training and education). The office, serving up to 10,000

1 The numbers of farmers, which are rounded, assume a family size of six and that 70 per cent of village population are engaged on farm work. The population size of sub-districts and districts at the higher density level would be just below Indian sizes and at the lower level would be somewhat above most African sizes. The number of farmers and the size of the area which it is feasible to cover are the critical figures and some compromise between the two has to be found. As to *area*, it is assumed that the sub-district might be from 10 x 12 miles in high density areas (600-plus population per square mile), to 15 x 20 miles in low density areas (100-200 population per square mile). These figures do not apply either to semi-arid areas with very low densities, where both staffing and transport become quite different problems, or to super-density areas (eg Bangladesh) where 1,500-plus per square mile is possible.

farmers, should be regarded as an important one and will need clerical and administrative assistance. It will be responsible for running the 'Farmers' Service Centres'.

- (c) *District level* (500,000-1m population, 60,000-120,000 farmers).
 District agricultural officer and deputy DAO, plus administrative staff.
 Specialist crop, animal and minor engineering staff.
 Planning and programming staff, including diagnosis, statistics.
 Relations with other rural development staff.
 Relations with commercial staff (inputs, credit, marketing).
 Management of sub-district agricultural staff.

It is clear that the job at district level is of critical importance, and that the senior officer should be of high status and pay, and his staff first-rate young professionals. These can be drawn partly from those college graduates who entered the service at the bottom and have done a short apprenticeship as assistant extension officers and a longer one as extension officers, and perhaps partly by direct-entry from universities after a short administrative experience; but direct-entry should not be more than about one-third of staff, so that career channels are not blocked at sub-district level.

The organisation of districts and their planning functions are dealt with in Part 6.

(2) *Management.* Given a reasonable recruitment, training, career structure, and deployment of agricultural personnel, there remains the critical issue of the personal, direct management of staff. This divides into two, closely related, subjects — man-management and programme-management. Man-management is NOT fully covered by bureaucratic rules nor by chains of authority, though both exist. It is covered only by personal example and field leadership. Programme-management covers design and timing of the programme of work, allocation of viable work loads (part of man-management) and monitoring of progress. These two together are widely neglected, but represent the only answer to the constant and often valid criticism that extension is a bureaucratic system characterised by poor motivation and low morale. Constant transfers of staff are destructive of morale and efficiency. Finally, while each officer should have a clear *and feasible* work load, management by setting numerical targets of 'farm plans' to be made, or the number of hectares under new varieties to be achieved, has wholly deplorable effects, resulting both in false returns and in concentration on large farms where such targets are most easily achieved.

(3) *Staff training.* Training for the new entrants at the *lowest* level obviously depends in some degree on previous schooling. It is possible to conceive of a two-year course for secondary school leavers, of which college graduates with an appropriate degree would take only the second year.¹ For this level most training has over-emphasised the technical/academic side (plant physiology, etc) and underestimated the social/economic side — ie the real position, income, farming system, problems of the farmer, and the social pattern of the village.

On the technical side, *recognition* (of problems, diseases, cultivation practices, etc) is the key problem; the officer will have technical help to call upon for more scientific analysis. Once on the job, he is bound to forget a great deal of technical matter and will have no reference book to remind him. It is therefore useless to teach him more than he can hold in his head. On the economic and social side there is less material to memorise, but much to understand — labour requirements, income, costs and prices. The college graduate, particularly those without a farming background, will certainly need this second year's work. Field studies will be essential.

On *higher* studies and training nothing general can be said, save that in-service training in technical knowledge will be a vital lubricant to career structure. Staff with excellent performance in the field should not be grudged a one-year (not four weeks) up-grading course on promotion; and this means that such courses, for experienced practical officers, must be available.

(4) *Specialist staff.* There is increasing recognition that, both for diagnosis and for programme-support, better technical expertise is needed at district level, strictly within the field of agriculture and animal production. These may include water-survey and engineering, land-shaping, soil analysis, pest- and disease-control (plants) and veterinary (animals), mechanical and electrical maintenance, roads, bridges and other structures, farm economics, pasture and fodder production, artificial insemination, and also specialists on particular crops or products. Apart from departmental sources, there are four main sources which have not been adequately used — agricultural engineering and other faculties in the universities; technical colleges; agricultural research centres; and the resources of industry, both in product research — eg leather fibres, plants (including medicinal/aromatics, etc), timber, and other products. While crop Boards and agro-industry corporations and similar parastatal organisations do

1 This may be too short; but the first year in actual service should be regarded as in-service training.

often look outside their own doors for such assistance, the normal habit of extension and district administration tends to be wholly departmentally self-enclosed. The concept of agriculture as a major and varied industry needs to be emphasised more, particularly in rapidly modernising areas, and there is a need to build up industrial-scientific liaison at district level.

(5) *Manpower at lower levels.* Countries obviously differ greatly in their present resources of trained manpower. The specimen organisation of an extension service given here does imply a considerable investment in education and training — and particularly the latter in the case of assistant extension staff (field assistants). For countries which are particularly short of secondary school graduates it is certainly possible to recruit unemployed adults for special training as field assistants, where they can look to sub-district level for specialised *technical* help. Energy and tact, *plus* an original basic education not necessarily up to full secondary level, are the minimum qualifications. In countries which are richer in education there is almost always a reservoir of young educated men and women who are unsuccessfully seeking white-collar jobs. A strengthening of post-secondary agricultural training is then needed. Finally, there is almost always an excess of trained staff in central ministries and departments, and this can be a useful reinforcement of field staff if the necessary postings to the field are firmly made and if the field staff pay, conditions and prospects are improved.

(6) *Equipment, transport and finance.* Priority to rural development involves some priority in expenditure. Even excellently conceived and planned programmes are most vulnerable at the point of field implementation. Sheer numbers of staff may genuinely be too low at field level; but an unchanged number, better led, could well be twice as effective. In advanced areas, sheer numbers of junior staff in the field can be reduced in favour of more specialised staff, better equipped at their base.

Of all the disadvantages which beset the lowest level of staff, in addition to excessive and unnecessary written reporting, unclear work loads, and non-existent career prospects, the worst is lack of mobility and the prodigious waste of time (and salary-cost per unit of effective work) which it involves.

PART 2 STRUCTURAL: LAND AND HOLDINGS

VII Special Tenurial/Co-operative Arrangements in Land Pressure Areas

General Argument

Wherever population density is high and holdings are small, fragmented, and decreasing, there will be a natural tendency to consider some form of co-operative or collective land-use, with shared use of equipment or facilities. This may be ideologically inspired, particularly after revolutions, land reforms, or from political commitment to socialising ideals (Tanzania, China, are strong believers in 'group or co-operative farming'), or communalist traditions. Long-term forecasts of population density and shrinking per-head holdings lead towards the same idea, as do considerations of 'viable size for use of modern technology'.

Forms of this type of proposal can be ranked by increasing degree of change envisaged.

(1) *Common use of facilities.* This refers to an irrigation source, machines and custom service, transport, storage, groundnut-shellors, etc. This is almost always valuable and involves no tenurial change. It is also an excellent focus for group formation.

(2) *Common land use — ownership unaffected.* Apart from village grazing grounds and pasture generally, there are a few cases where land is used in common, with produce shares often proportionate to area owned by each member. Retention of ownership appears psychologically important, and this can be a useful first step towards better land-use organisation.

(3) *Full co-operative farming — ownership pooled.* There are very few examples of successful co-operative *production* (marketing is another matter). Extended families may register as co-operatives, to gain any benefits reserved for co-operatives, to evade land ceilings, etc. These may become highly successful, but this is little more than an extension of individual ownership. In technical terms this is unexceptionable; in social terms it may accentuate rich/poor tension owing to the evasion.

Distinguish this from total land reform and political re-organisation, see (4) below.

The Egyptian system, in which village land is reorganised into a three-field system in which major crops are rotated, in sizeable fields, in a compulsory co-operative system with official management, is an intermediate solution. The similarity of crops and environment in the irrigated areas of Egypt facilitates this system, which could be hard to adapt to more varied topography and cropping patterns. Some success seems to have been achieved (eg in Turkey) in pooling land titles in favour of a co-operative managing sugar production.

(4) *Total communal organisation.* (China, Ujamaa, etc) The Chinese system depends upon major political revolution, with its advantages and its costs. Its success appears to depend upon at least four main factors: (a) a high degree of devolution of management right down to county and commune; (b) a very efficient administrative service and broad planning competence; (c) a steel framework of Party cadres, parallel with the administration, right down the system; and (d) the achievement of a sense that, at village level, the land really belongs to the tillers, rather than (as in Russia) to the State. Perhaps a fifth factor should be added — the differential treatment of main food crops, some 'commercial crops' (by contractual arrangements), and small privately-grown back-garden produce (fairly free). Unless these conditions can be achieved, copying of the Chinese system is unlikely to succeed; it involves total and very strict control of all labour movements and all work payments.

The Tanzanian system seemed initially to lack the technical and administrative efficiency needed, so that ideals were not sustained by success; however, the villages are now being strengthened with additional technical and management personnel and by the encouragement of construction and tool-making units. There is some tension between the communalised, highly egalitarian Ujamaa system in agriculture and the non-agricultural economy, where there is more differentiation in occupation and considerably higher rewards. This highlights (outside our field of agriculture alone) the fact that the Chinese system is a total system, into which agro-industrial effort, and indeed non-agricultural industry, is reported to be unusually well integrated in the development of rural economic management. The combination of a tightly directed and yet highly devolved system is one which has been evolved out of the history of China and of its revolution and, as the Chinese themselves say, cannot easily be copied elsewhere.

Guidelines

(1) The inexorable facts of rural population growth and shrinking holdings, projected legitimately 20 years ahead and combined with the slow growth of non-farm employment (which might accelerate but is at present very sluggish), means that *this issue must be much more urgently faced.*

(2) A pre-requisite of any solution must be that, for the coming 20 years, *at least* the same number of families must be able to earn a living from the land, and almost certainly considerably more. Even with maximum foreseeable growth of non-farm employment, this conclusion is inevitable in countries where no spare cultivable land is available and the area of large holdings which could be split up by land reform is insignificant in relation to the size of the problem (eg Bangladesh). The problem is most acute in Asia, rather less so in many parts of Africa and of Latin America.¹

(3) Technology and investment can help in this problem — eg total flood control, evenly distributed year-round irrigation, crops and implements suited to high labour intensity. Consolidation of fragmented holdings can give at least one-generation improvement; it also can be a key to increased use of groundwater. But consolidation is always at war with the inheritance system.

(4) In the absence of total revolution, voluntary action by all farmers in a limited area to pool and re-plan holdings (eg round an optimal layout of field channels from an irrigation distributory) is conceivable; it will certainly need persuasive initiative and support from government to launch it, as well as local leadership. The combination of investment and rural-works employment, plus replanning of holdings and water use for a three-crop per year system could contribute greatly to employment and incomes even in situations of great land pressure.

(5) The failure of total land-pooling (co-operative or collective) where farmers become, in effect, collective labourers, appears to be due to lack of the intense motivation to earn your own living from your own land. The reported Chinese success at the lowest level (production teams) appears to be due to: (a) a continuing sense of new, though

1 Land pressure is, of course, related to land potential. Poor, dry land can be overpopulated at 100 to the square mile; rich delta areas at 1,500 (ie about one hectare per farm family).

common ownership of their own village lands (abolition of landlords); (b) very carefully administered reward by labour-hours; and (c) new investment in improving lands by team labour for team benefit. It is possible that two types of system could co-exist in countries which cannot copy the Chinese model. One, in even relatively small areas where all holdings are small and land pressure is acute, by the voluntary restructuring suggested in (4) above; the remainder in viable single holdings subjected to a strictly enforced land-ceiling.

(6) It is vital for motivation that the full benefits of investment by voluntary labour should accrue fully to those who do the work and who agree to land-restructuring; and that the management of such schemes (with technical help) should also be in their hands.

(7) Even within existing structures, a considerable improvement in equity (income distribution and resource distribution) could be achieved by rationing the most scarce resource — usually water. This point is mentioned again in Chapter XI (Irrigation Systems). Where new irrigation comes to an area of mixed small and large holdings, with the effect of trebling the income per hectare, it would be equitable to reduce the size of larger holdings (which have trebled in value) and use the surplus to up-grade the smallest holdings to at least a viable size. This implies a new layout and compulsory powers available to the irrigation authority. *All* redistribution must be accompanied by support, so that the new small holder is not shackled by the constraints of landlord, merchant, and money lender.

(8) Where landless labour is badly under-employed, a considerable benefit can be provided by allocating a house site with just enough land for small animals and some food, and experiments on these lines are increasing; they can be associated with nutrition programmes. Although, as the Declaration states, *the final solution must lie in non-agricultural employment*, countries with acute problems of marginal holdings and landless labour will have to adopt all possible expedients to alleviate the situation for some years to come.

(9) Among the mini-farmers and landless labourers, hunger and poverty are often largely due to seasonality of production or employment; special measures are needed to attack this problem. Even on very small holdings, the use of a crop like cassava can be very helpful in tiding over seasonal hunger periods. Further, taking into account the multiple, if tiny, sources of income among the poor, even the smallest area of land can be a significant addition (Kerala).

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(10) In summary, the problem has to be tackled simultaneously from both ends — the land, and off-farm employment. At the land end, additional irrigation, some redistribution, some pooling of land and resources (eg the Egyptian 'three field' system), much more research and new programmes for dry (rainfed) areas, multiple cropping especially in the humid tropics, seasonal employment (eg rural works) and house-plots for labourers are all points of emphasis. At the off-farm end, better knowledge of the varied sources of income (other than land) and vigorous aid to non-agricultural employment in crafts, agro-industry, and services have to be pursued.

IX Settlement on New Land

General Argument

New settlement provides a social and economic *tabula rasa* which invites experiment; it has also proved extremely difficult. Objectives are here very important. Is it *primarily* designed for production (economic) ends, or primarily for social ends? The difference is often most clearly reflected in the size of proposed new holdings — big enough for modern commercial output, or minimal for subsistence *plus* minor cash earnings in order to serve a maximum of unemployed or landless families? The Gezira scheme illustrates the former: some of the Kenya resettlement on ex-European land the latter.

Guidelines

The main requirement on this subject is for absolutely clear definition of objectives, and for clear foresight as to the decisions which will be needed concerning three main difficulties.

(1) *Social provision, cost repayment, and dependency.* The *tabula rasa* has difficulties — initially, there is no school, clinic, housing, shops, etc. In the 'normal' economy people build their own houses, risk opening a shop, pay some fees or taxes for schools, roads, etc, often to a local authority. They expect at least some capital costs to be carried by the state (ie from national taxation falling on all sectors). If government is to provide these services in the new area are settlers to be loaded with a repayable debt for capital investment? Annual taxes at national rates? Higher payments because facilities are above average? There is clearly a dilemma between loading settlers with heavy debt from the start or giving so much as to create an aggressive dependency ('all services should be free') among settlers.

Further, with annual crops, subsistence payments will be needed for at least a year, and may come to be seen as 'wages', with some trouble when they stop, and even more if they have been treated by government as repayable advances. With tree crops, with perhaps six years to bearing (eg rubber), this difficulty is intensified.

There is clearly some dilemma here, and some differences in local circumstances, particularly as to initial land preparation costs. For example, the land to be settled may be under major forest or long-rooted

bush (the Tanganyika Groundnut scheme) or require major irrigation; or it may require only minor works of land clearance, water control, and simple access roads. In the former cases, some return on capital can be obtained by water charges from irrigation, or by a sales tax on produce towards the cost of initial clearance, deferred until production is well started. In the latter case, prospective settlers can be treated as 'rural works' labourers, wage-paid, until the land is ready for cultivation. Settlers are usually in a favoured position, in that the scheme will normally be designed to produce a better-than-average income eventually; and the settlers may be moving from a landless or marginal producer situation to one of owning or leasing land on favourable terms; it is reasonable that, in most cases, they should pay something for this benefit.

As regards social services (schools, clinics, drinking water, etc), the aim should normally be to put the settler in the same position as any other rural community which has received improved local services and which pays some local taxation towards their cost. In most cases, housing should be, as usual, the responsibility of the settler, using traditional materials, if they exist locally, or with some help if they do not. If successful, settlers will later improve their houses with more lasting materials.

In general, the tendency in settlement has been for government to overspend at the start, and incur much odium and disincentive effects among settlers by seeking to recover heavy 'debts'. The settler should be regarded much more as a pioneer, putting in a great deal of work on what will be his land in future, living hard with minimum necessary shelter to start with, and gradually improving both his land and his housing as he gets production going. Some would-be settlers may fall by the wayside; but others will take their place. Above all, the perfectionism which so often besets donor-aided schemes should be avoided; developing countries are not an arena in which expatriate consultants and idealists can try out their optimal village visions. Moreover, it is vital that the technical estimate of potential for the crop regime chosen, and of realisable incomes, should be pre-tested for accuracy.

(2) *Control*. It is reasonably safe to say that controls should be the absolute minimum needed for technical performance; and this will require severe curtailment of the tendency of almost all settlement administrators to wish for maximal control, so that the scheme operates neatly within its planned intention. Technical control means what it says — disease in crops or animals must be controlled; irrigation water must be properly regulated, erosion must be prevented. But it need not imply: (a) no diversification of crops from those 'allowed'; (b) no private

shops; (c) no employment outside the scheme; (d) compulsory membership of a co-operative; and (e) rigid housing standards. Controls which are not exercised over other 'free' farmers outside the scheme, and also too many controls, result in battles between rebellious settlers and government. Provided settler land is on leasehold from government, no problem of selling holdings will arise. If, at any stage, freehold title is granted (eg after repayment of initial levied costs or loans), then difficult problems arise, since individual freeholders will be entitled to break through scheme disciplines. This raises the question of eventual return to 'normality'.

(3) *Administrative form.* A further question must be faced at an early stage. Initially, there is usually (and necessarily) a 'settlement authority'. Is this to continue, or is the area, once roughly viable, to move onto the same footing as other, long-settled areas, with standard government services? This choice will also affect the degree of control instituted, since it will eventually have to be dismantled into 'normality', involving multi-departmental activities (agriculture, health, education, etc, etc). It could well be argued that the more difficult and exacting the main crop used for 'settlement' (eg modern palm oil or rubber), the more difficult the fore-going problems will be, and that a straight plantation system, with wage-paid labour, might be better, using settlement for areas where ordinary multi-crop farming can be carried on, in free conditions, after installing the minimal necessary access, clearance, and water-supply, and standard social infrastructure. It is possible to pay too high a price for continuing the 'small owner' tradition.¹

The points of emphasis are therefore as follows.

- (1) Precise social/economic objectives.
- (2) Precise decision on division of capital and recurrent costs between government and settlers, avoiding very long and onerous repayments.
- (3) Minimal controls, technically essential; minimal social/organisational impositions.
- (4) Consideration of a plantation alternative or an 'outgrower' system where high control is essential.

¹ Where a cash-crop commodity is of primary interest (eg sugar) it is theoretically possible to have a co-operative plantation, with small houseplots for minor food and vegetable supply. But it is hard to avoid neglect of the common crop in favour of work on the house crop; out-grower systems are probably preferable in these cases.

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- (5) Standard social provision, with regard to the danger of 'dependency', and of creating a new elite.**
- (6) Consideration of pioneer mixed farming after minimal infra-structural provision.**
- (7) Reversion to 'normal' administration whenever possible.**
- (8) Provision for settler representation in management.**

PART 3 ENVIRONMENTAL: SOME SPECIAL CASES

X Special Environments — Steep Hills and Mountains

General Argument

The objectives of action must be clearly defined. A first objective is likely to be environmental — the prevention of erosion, run-off and river-control, and the preservation of vegetative cover. This is likely to imply forest conservation or afforestation, which has a benefit in itself for lower areas. If the forest is to be used for timber production, this will imply access and (at least periodically) labour. If there is already some human settlement (valleys and grazeable high areas), questions of compromise between forestry and human livelihood will arise, and higher degrees of access and local water-control will be involved. Especially where the dominant objective is environmental (rather than timber production), this human element should have importance in its own right, and even in timber production areas co-existence is possible if carefully planned. In view of the large number of government agencies with an 'interest' in various aspects of development in mountain areas (forestry, agriculture, irrigation, animal husbandry) and of possible conflicts of objective among them, an effective administrative mechanism for co-ordinating their activities is essential.

It may well be that those who now occupy difficult and extreme environments (mountains, deserts, etc) were historically pushed into them by land pressure or conquest. But this may have been many generations ago. It is today important to distinguish between groups who wish to leave and go to a more favoured area and those who have become attached to the way of life by which they have mastered the difficulties of their environment. Although it may be difficult and costly for government, in the latter case, to give them adequate services *in situ*, officials should think twice before attempting to move them compulsorily, which can easily result in inability to adjust and collapse of morale.

Guidelines

Guidelines depend not only on local topography and conditions but also on increased research.

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(1) *Co-existence of settlement and forestry.* Much more research and experiment is needed in this field: (a) in leaving areas for pasture interleaved with the forest; (b) in local utilisation of forest products; (c) in animal production; and (d) in types of pasture and crop, including, in some areas, fruit-production. But in all such work, environmental stability must be constantly in mind.

(2) *Water control — anti-erosion and human settlement.* Terracing has long been used. But it may not be effective for either anti-erosion or human (agricultural) purposes unless combined with definite small-scale structures for gully-control, furrow irrigation, etc. Growing maize on narrow, steep terracing is apt to result in disastrous erosion. This problem requires both technical research on structures and costs, and the availability of small-scale water-control engineers to work in mountain environments. It is not necessary to go to the Himalayas to see this problem. It exists where there is a high, short-duration rainfall, within three months of which there is not even drinking water for humans.

(3) *The improvement of access and movement of produce.* The implications for the management of steep hill/mountain areas are partly for more research; partly for the training of mixed teams (forestry, water engineering, pasture, animal husbandry) for diagnosis of potential investment; and partly for experiment in the simplest economic type of investment for market access (movement of produce), eg bulk-reducing local processing (fruit juice), facilitation of movement on the hoof, bridging, ropeways, etc. There may well be a case of subsidising transport and access.

(4) *Emigration.* Some may leave the hills, reducing pressure on the environment. But, unless they are assisted, they may easily create problems elsewhere, eg by invading forest reservations at lower altitudes (Nepal). There is also in some cases a reverse movement; as land pressure increases in plains and valleys, farmers start to move into hills and cultivate steep slopes, leading to erosion. Rigorous control of access is required in both cases.

(5) In areas where not enough staple-cereals can be grown, it will be necessary for stores to be built up at trading posts, where grain can be purchased and mountain products sold.

(6) It may be possible for the necessary administrative co-ordination to be provided through a district committee, but in some cases where

conflicts of interest are especially acute consideration may need to be given to the creation of special area development agencies, organised on a catchment area basis.

XI Special Environments — Irrigation Systems

General Argument

The design and management of irrigation systems and of the agricultural system for which they are created is a highly technical subject which cannot be handled here as a whole.

Although surface irrigation systems, with their necessary (but often neglected) drainage component are constructed by engineers, their objective is the use of a vital and very scarce resource — ie controlled water for crop production.¹ To achieve maximum success in this objective involves a balance between minimal wastage of the resource and optimal agricultural and social benefit. It follows that in the decisions on design (for new systems) and utilisation (old systems and in re-design of old systems), the influence of the users and agriculturalists must be as strongly felt as that of the engineers. This has very seldom been the case.

Optimal agricultural and social benefit conceals a number of difficult questions, including that of the cost of the water supply in relation to the added production and incomes which it can generate. It also includes questions of the number of users and intensity of use — for example, a choice between giving full, year-round supplies to some users and none to others; or less than full, less than year-round supplies to twice as many users.

Since access to irrigation water is, in many countries, a horizontal line which divides the rich from the poor (including 'rich' two-hectare irrigated holdings and very poor two-hectare rainfed holdings), the decision on 'who benefits?' is of key social importance; and the word 'optimal' implies a political decision on distribution and intensity as well as a cost-benefit calculation as to the final production and income generation implied in one choice or another. Moderate benefits to many users may, or may not, outweigh in purely economic terms, maximum benefit to fewer users. There may also be important differences and choices to be made on cropping patterns. To allow 100 farmers to take enough water for sugar production may well mean that 200 other farmers get no water at all. Lining canals may enable more farmers to be served, but will certainly increase costs. Further, the more extensive the water distribution system, the greater the water-losses (seepage, evaporation) and the lower the water efficiency in terms of initial input

1 In some cases, power production as well as crop production.

compared to final usage on the field.

Where groundwater can be extracted by pumping, farmers are presented with the possibility of matching water supplies much more closely to their individual crop requirements than is feasible on most surface systems. The small pump, used by the cultivator at will on his own land (he may perhaps sell water to neighbours too), or the rather larger pump co-operatively worked and managed, is a very flexible piece of equipment. Communal pumps, covering many land-holdings, can cause more trouble if the system of operation is not carefully and equitably negotiated among all users. In some cases, where there may be cogent reasons for establishing large public sector tubewells (eg for conjunctive use of surface and groundwater; depth of aquifer; doubtful water quality), measures may be needed to prevent operators misusing their local position of monopoly power against the interests of the farmers dependent on their wells.

The two major dangers in private groundwater use are, first, the danger of poor water quality; and second, the danger of lowering the water table by an excessive number and/or size of pumps. As to the latter, there is in many areas evidence that the larger farmers with large pumps can, in effect, starve the small pump and well owners by their excessive use. Since water is, in many areas, a far more critical constraint than land, it can be strongly argued that any equitable development programme must include a rationing of water use where this danger of exhausting supplies is evident. To see a valley in which the water table is steadily falling, and in which a few farms are concentrating almost exclusively on sugar production, with its heavy water demand, while their neighbours have no water and the fields are fallow or dry pasture, is to see a gross misallocation of the scarcest resource, having regard to the need to maximise livelihoods and reduce the rich-poor gap. Irrigated land can support three or four times the number of livelihoods as can dry land; and the number of livelihoods which 100 hectares can support is already, and will become more crucial in many local economies.

Guidelines¹

- (1) In view of the need for direct attack on poverty, and in view of the increasing pressure on land (which implies that families must be able to secure an income from smaller holdings), choice between alternative

¹ Much more detailed analysis and guidance will result from current Irrigation Management Studies by A.F. Bottrall, (ODI, London, for World Bank).

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strategies of irrigation development should be weighted fairly heavily towards larger numbers of users in the land-pressure areas. It follows from that that decisions about the design and final layout of a canal system or about the location and size of wells cannot be left solely in the hands of technical experts. These are strategic social choices which government itself must make. This is also true of certain decisions on cropping patterns (eg the use of sugar already mentioned).

(2) At the design stage of any new irrigation system or revision of an existing system, the agricultural as well as the engineering interests should be equally represented, and the social as well as the agricultural and engineering cost-benefit balance should be decided.

(3) Many existing irrigation schemes have very low water and farming efficiency. There may be, therefore, very considerable immediate gains in improving the management and, if necessary, the design of such systems, as against wholly new investment.

(4) The day-to-day supervision of a sizeable irrigation scheme requires a team approach as between engineering, agricultural, and other concerned staff, and on large schemes the necessary co-ordination may best be provided by a single agency responsible for all development activities within the command area concerned ('Authority', 'Commissioner', etc).

(5) Particularly in the early stages of a newly-established irrigation scheme, when farmers may be very unfamiliar with the practices and disciplines required by irrigated agriculture, water-management extension is of crucial importance.

(6) The widespread practice of leaving the farmers themselves to construct the final watercourse channels has often resulted in no action, or a highly inefficient and inequitable layout. Their design and construction must be closely supervised, although farmers themselves will generally do the work.

(7) Irrigation management at local level may well offer an opportunity for group formation, round the disciplines of water allocation, channel maintenance, and the responsibility for paying water rates. Many examples for such self-management systems exist, most of them spontaneously generated. Great care must be taken not to destroy the morale and effectiveness of such existing systems by imposing non-traditional institutions and regulations upon them. Similarly, new

systems cannot be created by imposing some standard form: they are likely to be most effective if they are based on a single channel or well, rather than on a village, and they must be very carefully elicited by consultation with the farmers concerned.

(8) In the interests of securing more equitable distribution of water between users, government should not hesitate to regulate certain key factors — eg the prohibition or rationing of certain crops, the limitation of groundwater extraction — or to impose stiff penalties, on officials as well as farmers, for the infringement of rules governing water allocation on publicly-operated systems.

XII Special Environments — Pastoral Systems

General Argument

This Chapter concerns those peoples who draw their principal livelihood from animal production in arid and on the edges of semi-arid zones.

Questions of the definition of objectives — both the objectives of government and those of the people concerned — are of key importance in this field.

The desire to 'settle' nomads and semi-nomads has been a frequent objective of governments, and often arises from the difficulty of providing modern social and economic services to moving populations, or of increasing their cash incomes by commercial development. The drawbacks to such endeavours are well known. First, settlement may waste their existing use of grazing resources in semi-desert areas at certain seasons; second, settlement may destroy important elements of their social system and motivation; third, commercialisation, while enriching some members, may gravely impoverish others; fourth, there may be great difficulties in finding a settlement area in competition with semi-arid agriculturalists.

An alternative programme — usually investment in wells in their existing environment — can run into equal dangers (over-grazing near water, environmental degradation through excessive stock numbers followed by occasional collapse in severe drought cycles).

Guidelines¹

Guidelines here are so heavily dependent on the precise environment and potential, and the precise system of survival and social traditions of the peoples concerned, as well as on the precise benefits which government anticipates (either to the national economy or to the people concerned, and preferably to both), that specific recommendations cannot be made.

(1) It is clear that economic planners (mainly government), animal and pasture experts, ecologists, social anthropologists, and pastoralists themselves, whose whole life-system is at stake, can have widely different

¹ Much more detailed analysis will result from the current pastoral studies by S. Sandford, (ODI, London).

approaches to this problem. It is therefore essential that in decisions on action all five points of view should be fully represented and their advice adequately weighed in the decision. In particular, the real nature of the objective should be closely defined — exactly why is government wishing to interfere with an existing situation? Who benefits from the interference?

(2) Where water-investment takes place, the thorny question of common use of water and pasture and private ownership of herds, and of stock control, will have to be negotiated with the pastoral community at the start of any new system, with effective provision for policing an agreed system. The attempt to fix an aggregate stocking limit for a large area runs into the difficulty of the share of each individual owner in the total; to freeze these shares freezes the distribution of wealth, and is probably not acceptable.

(3) Where commercialisation is part of the objective, the probable social, income-distribution, and employment effects will have to be carefully weighed before decisions are taken. In some pastoral societies there are well-established traditions by which larger cattle-owners farm out some cattle to poor members of the group, and the latter may keep any calves born as reward for their management; commercialisation is likely to put an end to this, just as in areas where land is customarily held by the whole group and all members can ask for a plot, individual title and cash-cropping puts an end to these communal arrangements. While it may be impossible to suppose that an existing social structure, with its virtues and defects, can remain unchanged (and its defects may make change desirable) in face of major economic changes, the benefits of the change must be weighed against different and possibly worse defects which could arise from it unless they are anticipated and modified.

(4) As in the case of mountain areas, environmental stability in arid conditions must be constantly watched. Preventing long-term degradation of the environment ('stability') does not imply an attempt to hold constant stocks from year to year. Rainfall and available pasture fluctuate, and pastoralists are well used to fluctuation in herds, as part of their adjustment to their difficult environment. The best help may not be to aim at stable numbers but to make it easier to get rid of surplus stock when a bad year comes.

PART 4 TECHNOLOGY

XIII The Introduction of New Technology

General Argument

New technology is (apart from wars and revolutions) often the most powerful influence on social change. It can destroy employment for one area or group, increase it for another, alter tenurial arrangements, upset income differentials, gravely or beneficially affect nutrition, change social custom (eg from women's work with a hoe to man's work with bullocks), create new markets or destroy old ones, and alter import-export patterns. Technologists themselves often cannot foresee the consequences of their acts. 'Development', which often relies heavily on new technology thus carries the (often unperceived) costs of change as well as its benefits. Abolishing drudgery is certainly a desirable aim; but it cannot be pursued without regard to highly undesirable increases in unemployment.

It follows that the introduction of new technology requires active *initial* monitoring, so that, as far as possible, its probable effects, not only on wealth production but on misery production, are foreseen. It is not enough to introduce a new technology simply because of its beneficial effects for one sector of society and wait until the misery effects emerge in another. This has been, in general, the historical 'solution'. New technology has produced additional wealth for some, misery for others. The new wealth creates new forms of employment, often associated with painful labour migration and, also some of the new wealth trickles down, through taxation, to alleviate misery. If the balance of wealth and misery remains reasonably favourable, a succession of new balances between the benefitted and the threatened may be achieved, gradually including a higher proportion of the whole society in the benefitted section; if it is not, immense social tension and deprivation result. Technology is not just a splendid scientific achievement: it is also social dynamite, which, though useful for blasting obstructions, requires extremely careful control.

In the circumstances of developing countries today there is a very serious imbalance, visible in the semi-employment and acute poverty of huge sections of the population. Accordingly, the strategy stated in this paper gives a high priority to technologies which can directly benefit the poor, and which can maximise the number of new livelihoods (employ-

ment is a little too narrow a term) or improve existing livelihoods among the mass of the rural population.

A fear is often expressed that, unless highly productive technologies are introduced freely, even where only the larger, better financed farmers can use them, there will be a failure in the growth of production and of the creation of national wealth. We make no suggestion whatever that capital-intensive technologies should not be used on larger farms where they are economically and technically efficient, *provided* that capital is not made unduly cheap by over-valued currency, import concessions, concealed subsidies, and provided that monopolisation of a very scarce resource (water, etc) is not allowed. We do suggest that research and development, and development planning should give a far higher priority to the development of technology well suited to small producers and with a high employment potential. We suggest this partly because this is where the national needs lie, partly because there is still a large unused potential, and partly because income in the hands of the poor generates more domestic employment and less foreign exchange costs than it does in the hands of the rich — both critically important to countries with high unemployment and high foreign exchange deficits.

It is obvious that choice of technology is intimately related to local economic and employment conditions. In a situation of rapidly growing industrial employment, where the proportion of agricultural occupations to industry and other occupations is falling fast, labour-saving technology on farms, which also increases farm incomes, may be economically acceptable and socially desirable if it helps to relieve rural poverty and bring the rural standard of living nearer to its industrial ('modern') counterpart. On the other hand, in situations of high *general* unemployment (in both urban and rural areas) and rapid population growth, such technology only adds to unemployment and misery. Further, not all 'modern' technology is labour saving; it may be both income and labour increasing (as is the case with irrigation) or neutral to employment but saving in drudgery.

Technology is very largely the child of effective demand, and of the power and money which is put behind demand — hence the technology of supersonic flight, of inter-continental missiles, or of combine harvesters. Research and development is financed by this effective demand. Cheap and simple equipment is not necessarily produced in cottage industries or back-street workshops; it may be produced by high-technology mass production once effective demand from a mass market is available and perceived. Small farmers and labourers cannot influence designers and research centres. Thus, unless private entrepreneurs perceive a market and design at the right price for it,

government will have to switch the efforts of research and development in a new direction; for without such intervention, Western bias and the demand of the powerful battalions will continue to guide research.

Green Revolution technology of high yielding varieties, demanding exacting conditions of controlled water supply and drainage and high credit for chemical inputs, was not designed either for the economic conditions or the risk-capacity of the small farmers. Further, concentrated as it has been on cereals, it did little for all the multiple alternative ways in which small farmers can extract a higher income from high value production on small acreages (animal products, horticulture, tea, intercropping — as in West Africa or Kerala — organic mulches, and a dozen more). Most of the work on such technology lay outside the Green Revolution emphasis, and still does, partly because the prestige of the miracle seeds and high chemical fertilisation has pre-empted attention. The following few Guidelines represent only a first step in re-directing attention and research towards the needs of the mass of small farmers and landless labourers.

Guidelines

- (1) The first step towards a technology better suited to the mass of small farmers is better use of existing technology; and this means a reference backwards to preceding Guidelines — ie much more *local* diagnosis of physical conditions and of human need; more contact with small farmers; more imaginative consideration of possibilities (not just high-yielding varieties [HYVs] and credit); more small investment which makes room for technology (especially water-control in many different forms); improved collection, distribution, and information concerning existing technologies suited to small units, both nationally and internationally.
- (2) Revival of attention to hardiness and reliability in both cereal and non-cereal crops (disease-resistance and ability to withstand water tension), nitrogen fixation, and to cultivation performance among farmers.
- (3) Revival of attention to non-cereal income-raising crops and animal production.
- (4) More research on bullock-drawn implements, harvesting implements, and hand pumps. More attention to maintenance and repair of equipment.

(5) More vigorous efforts to encourage local manufacture of adapted equipment. As suggested above, government may have to initiate some new designing, or adaptive modification, of technology, test it in farm practice, and create a market which can subsequently be filled by industrial manufacture. Simplicity of operation and maintenance and hardness will be important requirements. Standardisation of equipment and components may well be possible and necessary in order to reduce costs and encourage large scale production.

(6) Minor investment in water harvesting (run-off, percolation tanks, minor water structures in hills, gullies, small deep tanks, etc).

(7) A considerable revision of applied research centres (fundamental or long-term research is here distinguished), in content, staffing, and methods. Social goals must be determined before research programmes are designed. In content, research and development should devote more time to filling gaps which would make technology better suited to smallholdings and local employment. In methods, there should be much closer integration with field work; research staff might well be encouraged (by career incentives) to spend, from time to time, a substantial period in diagnosis work in the villages alongside the extension staff (both agricultural and engineering). This will help to keep open the channels of demand from small farmers to research, and to modify the academic bias of research. In staffing, the units of agricultural economists and rural sociologists within the centre should be strengthened: they should be influential in the choice of gap-filling research.

(8) 'Appropriate' technologies are not necessarily old nor simple in technical origin. The newest of materials, often products from industrial research, may have new agricultural applications. Better and quicker dissemination of tested technological innovations, both within and between countries, is badly needed. New applications of solar and wind power may have useful small-scale relevance.

(9) It is important that the strong and growing emphasis on new technology and research should not divert attention too strongly from known and achievable benefits. Land and water-use improvement by known methods and minor investment; hardy improved seed with higher but not maximal yield; better cultivation methods; improved small tools and equipment; reduction of storage losses; timely delivery of inputs, and a rewarding price to the farmer — these in total give a

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larger benefit than introduction of very sophisticated maximal yield varieties to ill prepared farmers.

(10) There are especial advantages in passing on more widely through the farming society the experiences and successes achieved by farmers themselves, so that new ideas are less often 'foreign'. In some cases traders and shopkeepers may be quite useful channels through which experience is passed on.¹

(11) There can be important sequences in the introduction of technical change. Line-sowing and weed control must precede chemical fertilisation; training in the proper feeding and management of cattle before the introduction of exotic breeds with high-yield potential but high feeding requirements; reliable water-supply and double or treble cropping before a tractor becomes economic on smallish holdings.

(12) Finally, it is important to remember that 'new technology' does not only refer to machines, tools, and physical equipment generally. Bio-technology (seeds, plant-associations, nitrogen fixation, water-stress, storage, soil-temperature, etc) has still great potential for widespread application, is often unaffected by scale, and often directly applicable in farm operations without involving an intermediate manufacturer.

1 Though sometimes guilty of selling coloured water as chemical spray!

PART 5 THE COMMERCIAL FUNCTION

XIV Credit and Inputs

General Argument

The buying of inputs and sale of outputs and the use of credit, which we have called the 'commercial function', is a wholly different *kind* of activity from the activities of production and the administration of technical staff which have been discussed earlier; for this reason a different kind of staff is needed to look after it, and we have suggested later that this should be reflected in administrative structure.

Agricultural commerce differs from business dealings in other sectors in three respects. First, there is a long time gap between sowing and harvest, which has to be financed. Second, huge numbers of agricultural 'businesses' — small farmers — have very little fixed capital and equipment and very little security which they can offer against borrowings. Their land is their main asset, and it is politically extremely difficult, for government at least, to foreclose on land if loans are not repaid. The third difference is that agriculture is subject to risks — weather in particular — which the farmer cannot either control or cover by insurance.

In a fairly prosperous agricultural system farmers have considerable purchasing power, and are therefore attractive customers to commercial suppliers of inputs. They find no difficulty in buying on credit, and both merchants and banks may be glad to have their custom.

But for the small poorer farmers, with small, mixed surpluses, the situation is very different. They will use a considerable proportion of their crop for family subsistence, and of any cash earnings for unavoidable social obligations (marriages, etc). Here there is a much more urgent need for external governmental intervention to stimulate increases in output, through the provision of fresh and better seeds, new planting and cultivation methods, more plant-food, and weed and pest control.

Some of these initial measures require no additional cash expenditure on the farmer's part; others will require a little, but, even where rural financial markets are not highly developed, the necessary credit may often be obtainable through private channels.¹ Because of the very high

1 I.e. family, friends, moneylenders. Credit from the last category may sometimes (certainly not always) be extortionate in its terms; but it can often be convenient and

timely, as is evidenced by the number of farmers who use it, even when institutional credit is available.

costs entailed by attempting to introduce a programme of institutional credit prematurely — ie before farmers have become creditworthy — it is essential that in the early stages of development it be preceded by appropriate technical advice and accompanied by a satisfactory delivery system for those purchased inputs which can be expected to form an increasingly important part of the farmer's requirements.

Unfortunately, in the case of all too many programmes of institutional credit, these conditions have not been observed in practice, with the result that repayment rates have often been extremely low. The worst examples of failure have tended to be in the sphere of short-term (crop season) credit, especially in areas where food-crops, with multiple marketing channels, predominate. In many countries, credit seldom reaches the small farmers. Even where it does, there are serious problems of administration. A particularly alarming, and very common, symptom is that percentage credit overdues tend to *increase* from Year 1 of the credit scheme to Year 4 or 5. Clearly, they should have the opposite trend; for if the input-cum-credit 'package' is effective in sharply increasing output, earnings should rise and credit should be increasingly *easy* to repay. This raises some question of the effectiveness of the input programme. Many such programmes claim a 30 per cent (or higher) increase in yield per hectare from improved seed and additional fertiliser, and a 2:1 relationship of additional money earned to cash borrowed. This again suggests either that the farmer, through inadequate preparation, is unable to achieve the claimed results, that the input delivery system has been faulty, or that he does not believe that sanctions will be applied to default.¹

There are, however, two quite widespread situations in which a greater degree of success has been achieved. First, when a commodity is sold to a single purchaser, usually where expensive processing is required, the credit debt can be automatically deducted from the purchase price (milk to a dairy corporation, tea (or rubber, sugar, coffee, tobacco, etc) to a Board or company, or major commodity co-operative. Two factors here are important — the monopoly channel, and efficient professional management of the package and its delivery. Such systems are, however, extremely hard to organise for small surpluses of easily processed (or unprocessed) food crops, which are partly consumed by the producer, used to meet debt or rents in kind, or

1 Where default is high, there are usually two main categories of defaulters: the poorest, who often lack the technical knowledge to use the credit productively and, at the same time, are understandably tempted to spend it on family consumption and accumulated private debt; and the wealthiest, whose default is deliberate.

casually sold to traders or in weekly markets.

The second favourable situation is when credit, usually medium term, is given for a highly productive physical asset, of which wells and pumps are the obvious example. Provided that the water does not fail (eg salination, falling water-table), the farmer is virtually certain to make considerable gains and be able to repay. Provision on credit of a good milch cow, provided that the farmer is able to feed it properly, is another hopeful way to success.

Subsidies. General subsidies (to all consumers of a commodity or service) represent a deliberate policy to provide a commodity or service below its real cost (education, health, sometimes public transport, and sometimes power among services; fertiliser among commodities). The cost falls on government, to be recovered either in taxation or as an opportunity cost ie non-provision of some other investment or service. Subsidies to special classes (ie fertiliser subsidy to small farmers) involve very efficient administration and always risk black markets where applied to a commodity. In the case of fertiliser, not only is the black market very probable, but the price balance between cost of inputs and value of outputs is distorted, and difficult to reverse later on. While subsidy to social services (health, education) is common — and the benefit is not transferable between individuals — subsidy to special classes on commodity prices (eg for agricultural inputs) has all the disadvantages, particularly where the taxation system is not both progressive and tightly administered; for otherwise the poor pay in tax what they gained in subsidy. The question of subsidy is intimately related to price policy generally and no general Guideline can cover the variety of budgetary and economic situations in different countries.

Guidelines

(1) Far more attention should be given to the preparation of farmers before they are introduced to institutional credit. First, their cultivation methods can almost always be improved; and minor investment in water control or land-shaping may improve them further. This is a first step in improving confidence and competence. Second, many (not all) improved seeds will raise yields even without chemical fertiliser, particularly if organics are available. Third, it may pay to *give* the farmer enough seed and fertiliser for quarter of an acre, as a first year trial and demonstration on his own land (much better than a demonstration by anyone else). If his trial succeeds, a credit loan could follow in the following year.

(2) Any decision as to the size and scope of an institutional credit programme in a particular area should be based on a careful consideration of the extent of already existing rural financial markets. The aim should be to supplement other sources of finance, not displace them or duplicate them unnecessarily at high administrative cost.

(3) If crop season credit is given for crops marketed through a single buying channel (crop board, milk collection scheme, self-contained production and marketing project, monopoly¹ commodity processing unit), credit dues can be deducted from the market price paid. The greater difficulty arises where crops are mainly consumed or sold in open markets to private buyers, and this arises particularly with staple subsistence crops and minor crops. Co-operatives handling such crops are in particular difficulty, and, *in general*, co-operatives, which do not have monopoly purchase, are unsatisfactory credit organisations (pressure from powerful members, inadequate sanctions on defaulters, blockage of credit to *all* farmers when the co-operative as a whole is in serious default). Where a satisfactory co-operative organisation is not available it may well be better to handle credit through a credit or commercial bank and physical inputs through a parastatal supply organisation supervised by the commercial division of the Ministry of Agriculture. Particularly where supplies are ample, government may only need to handle wholesale procurement, leaving local distribution and retailing to licensed stockists.

(4) Political anxiety about implementing sanctions on defaulters leads to rapid deterioration in recovery of credit debts. Quick and resolute action against defaulters is essential.

(5) There is considerable controversy on the desirable rates of interest to be charged on short term loans. Many economists believe that a realistic rate for borrowing in the rural economy should be charged in order to cover the administrative costs entailed by any lending programme aimed at providing an expanding service to a large number of small borrowers. On a loan of £20 for inputs, for 6 months, interest at 15 per cent amounts to only £1.50, and at 20 per cent to only £2. Many people would say that the extra £1.50 or £2 is not critical to the farmer's decision to take, or to repay, the loan. It is, however, critical to the increased effectiveness and breadth of coverage, of the credit programme as a whole.

1 Technically, monopsony.

(6) In general, institutional and subsidised crop-season credit without an automatic recovery system at the marketing point is expensive both in overdues and administrative costs. Moreover, it is apt to burden extension staff, both in time and in the goodwill of farmers, when they are used for loan recovery, and to make local representative committees the enemy rather than the friend and instrument of the farmers if they are used for this purpose.

(7) Different considerations arise for larger medium-term credits for investment (eg wells and pumps, and machinery). In most cases the benefits are assured, and the loan is normally secured on land or real assets. In general, medium-term lending is both more satisfactory, less risky, and more productive. It is less risky because a well dug will be there next year, but a season's crop failure leaves neither cash nor asset behind it.

(8) *Savings.* If it is believed, with good reason, that finance for seasonal inputs is essential and that it will not be forthcoming from family resources, then savings schemes have great importance. Such schemes should always accompany short-term credit systems; they may be through many forms of savings clubs or societies, some traditional and self-monitoring. They have the advantage that savings can legitimately be used for consumption needs and to tide over pre-harvest periods when cash is very short. Savings have been greatly under-emphasised save in a few projects (eg Comilla, Bangladesh). A strong development of savings could go far to eliminate short-term crop loans, or to provide security for them.

(9) *Inputs.* Crop season credit is, of course, linked to inputs of seed, fertiliser, chemical sprays etc. In the early stages of development there may not be an adequate service of merchants and stockists at local levels, so that governmental organisation is needed. We have suggested in Part 6 that these essentially commercial operations should be supervised by a department separate and differently staffed from the main Ministry of Agriculture, since it requires different skills and structure. Unfortunately chemical fertiliser in particular has often been

1 There is often more money in the rural areas than is usually supposed.

2 Much of the pressure on the farmer to accept credit loans is due to the enthusiasm of plant-breeders and governments to extend the use of high-yielding varieties, without adequate consideration of the problems of efficient preparation of the delivery system, and without weighing fully the intensity of risk-aversion among farmers and the means of reducing it.

in short supply. This is likely to be disastrous for the small farmers, particularly if an HYV programme has been 'sold' to them. It is even more disastrous if government subsidises fertiliser when supply is short and prices high; controls are almost invariably ineffective in this situation.

- (10) In summary, the general tactics advocated here are as follows.
- (a) To build up the creditworthiness of the small farmer by careful preparation and trial, and to make sure of the efficiency of the delivery system, both of credit and of physical inputs, before persuading him to accept credit.²
 - (b) To direct the main credit effort to loans for highly productive assets — irrigation, animal production, etc.
 - (c) To minimise the need for crop-season institutional subsidised credit by extending the use of organic fertilisation, nitrogen-fixing plants, a good price differential for cash purchases and the use of longer term loans by which to build up production and working capital.
 - (d) To apply strict sanctions on defaulters, so that the habit of default is not allowed to spread — and this applies especially to the larger borrowers who are apt to be the first and worst defaulters.
 - (e) To relieve the extension service both of loan recovery and of the physical distribution of inputs.
 - (f) In the longer term, to aim at a situation in which government intervention, except in regulatory action, is reduced, as the business of buying and selling and credit is taken over by normal commercial economy.
 - (g) To endeavour to ensure, as a matter of policy, that supplies of inputs are ample, taking into account the need to use organic local sources of fertilisation to the full. This should help to avoid black markets and inequitable distribution of inputs.
 - (h) There should be multiple sources of credit — co-operatives (where they are successful), various types of bank or credit corporation etc, suited to the particular types of activity to be financed; and various types of recipient-groups or individuals again according to the type of loan.

XV Marketing

General Argument

The same difficulty as that mentioned in the General Argument on 'Credit and Inputs' — lack of effective demand and the difficulty of handling small mixed surpluses from scattered smallholders — applies with even greater force to Marketing. There is also an even greater difference in the methods adopted for marketing between countries, between regions within a single country, and between crops. In most countries which have a smallholder economy there will be weekly markets at village level, in which farmers and farmers' wives will often be both buyers and sellers: these markets may also be visited by the agents of major traders, purchasing for disposal at larger and more specialised markets at the level of the country town.

While the village markets are quite effective in selling vegetables and more or less specialised local products, there may be great difficulty in disposing of surpluses of staples which almost every farmer is growing anyway. These may have to reach the next level of markets where larger traders are buying for the towns or for specialised processing. The Guidelines which follow do not deal specifically with these open-market operations, save to stress their importance. Rather, because in a great many developing countries the open markets are distrusted, as a field for 'exploitation by middlemen', the Guidelines concentrate on two forms of action which have been adopted as alternatives to the open market — outgrower systems, where particular crops are purchased by major processing/marketing organisations, and crop Boards, which may also process but act primarily as widespread purchasers of their particular crop for bulk disposal, sometimes to export, sometimes to government, sometimes to deficit regions, and sometimes to specialised industrial or other customers.

In theory, such organisations, which may be parastatal, should be efficient in protecting small sellers from merchant-exploitation, and should also be easily monitored and controlled by government. But in practice there are some limitations and problems in their use.

Totally managed outgrower schemes. Marketing and processing are not only important in themselves but also may make a highly significant contribution to management systems. The most obvious examples are the factories processing tea, coffee, sugar, tobacco, milk, and other commodities, where supplies of the raw material come from a large

number of small growers. These schemes have the remarkable result of establishing a very modern and often highly efficient industry on the doorstep of a mass of small highly labour-intensive producing units. Almost equally remarkable is the fact that they may do research, provide a specialised extension service, and issue necessary seed or other inputs on automatically recovered credit, and that they collect, process, grade, and market the product, thus combining in one co-ordinated way functions which for other crops involve a government research centre, an agricultural extension service, a seed multiplication system, an input delivery system, a credit system involving banks or co-operatives or special societies, co-operative or private milling, storage, and final marketing. Where co-ordinated arrangements of this kind can be developed by a public corporation (Kenya — tea), or private company (Fiji — sugar) or a large co-operative (Maharashtra — sugar), and subject to some supervision of prices in monopoly conditions, many of the agricultural development problems are solved.

The small producer element is important here. There is no need to go to plantation organisation, with wage-paid labour rather than small-holder production, if a scheme of this type, which is employment-intensive, can be found.

Crop Marketing Boards. A rather less encouraging account can be given of many of the publicly established marketing Boards which, as their name implies, usually cover only, or mainly, the marketing function. In many cases these are carrying out only the buying and selling function, so that extension, inputs, and credit fall back to the general and rather confused area of government field staff, co-operatives and banks. Marketing Boards vary greatly in their internal management arrangements, so that no general comment on their performance and usefulness can easily be made, save on two points — their tendency to expand their functions, and their relationship to the central Ministry of Agriculture.

As to expansion, crop marketing Boards tend to be large (at state level) and 'modern' in organisation and staffing. Hence they build up a large central office, a hierarchy of officials, a transport fleet and storage capacity — ie very high overheads. In anxiety to succeed commercially they are likely to demand (and usually obtain) a monopoly position, in which they can in some degree dictate to farmers — amounts, prices, quality, collection points. Although they may 'modernise' the marketing system, do some useful sales promotion, and add real assets of storage and transport, it may be at the expense of low prices and hard bargains with the very farmers who most need help — those with small surpluses from scattered farms.

On the whole, marketing Boards are conservative in their price policy, and allow wide safety margins, at the producer's expense. Having a monopoly, they need not worry about their share of the market, unlike the private trader who must take some risks or lose in turnover to bolder competitors.

As to relations within government, proliferation of crop Boards — in some countries (eg Kenya, Malaysia) there is a Board for almost every crop — results in a gradual whittling away of the responsibilities, and the co-ordinating role, of the main ministry (agriculture). There are places (Bangladesh, and until recently, Pakistan) where a 'Department of Integrated Rural Development' coexists with a whole number of crop Boards, as well as a Ministry of Agriculture — casting much doubt on 'integration'.

The main arguments for crop Boards are two. First, that they cure 'exploitation' by merchants. But to this there are counter-arguments — that they exploit farmers in an official, macro-economic way in accumulating large surpluses transferred out of the agricultural sector,¹ and that they give a very poor service at the lowest field level compared to weekly markets and small traders, who, if they pay fairly low prices, at least are glad (however much they feign reluctance) to snap up small, scattered and variegated surpluses from which they make a very moderate and often poor living. Evidence from tropical Africa indicated that the main weakness of the merchant system is in the wholesale section, not at grass roots. The simple assumption that all middle-men operate with wider margins than parastatals is by no means always justified, a fact which is well-known to many farmers.

The second argument is for specialisation. Each crop has its own peculiarities and needs its own scientific research, and in some cases market research. The argument for single-crop research organisations can be very strong, and research costs can be carried on a large turnover. It is thus arguable that research and promotion is a valid reason for cropwise organisation, and the integration of research, extension and marketing.

Guidelines

Only tentative conclusions can be drawn from this difficult balance of advantages and drawbacks.

¹ Where a marketing Board is a co-operative of producers, these surpluses should flow back to member-producers (eg some Boards in Kenya).

Crop Boards

(1) For staple food crops, partly grown for subsistence and partly for sale, and widely grown by small farmers, the weight of evidence is against crop Boards operating at field level. If there is a major export, there may be a case for an export organisation at the central level. On the whole local (supervised) markets and traders are normally able to give a more flexible and less costly service. Research and extension are normal Ministry of Agriculture functions, and research is heavily backed by the international research organisations (IIRI, IITA, etc).

(2) It is possible to combine single-crop specialised research with Ministry of Agriculture field work, or with commercial processing (eg coffee research in Kenya).

(3) It is possible for a single crop marketing Board to operate only at wholesaling level (eg buying from millers, ginners, etc). They can be a useful source of credit to wholesalers.

(4) Single crop Boards, with major HQ, provincial, etc offices and staff are probably only economic, in terms of good prices to farmers, if the crop is of high unit value which can stand these organisational overheads, or for crops grown mainly in large amounts by small numbers of farmers or plantations; *not* for the small producers of miscellaneous small surpluses.

(5) In particular, farm management (ie choice of crops, rotations, etc which can be of great importance for small areas) tends to be lost to sight where single-crop agencies dominate the scene, and cash crops are over-emphasised in relation to food crops (West Africa). This drawback must be weighed against the stimulation which *any* good marketing system can give, even if only for one crop.

(6) In general, very close limitation and definition of functions is needed in establishing a crop Board, based on clear definition of the need to be met. It may be built round processing (but small units, eg rice-mills, may be more economic than large as well as giving more employment); or round wholesaling; or round industry-wide research (if lacking); or round export promotion. It is worth remembering that research, promotion, manufacturing/processing and field services to farmers are extremely different functions, requiring quite different types of personnel and of management, and that bureaucratic management systems within Boards are often not well suited to *all* of these functions.

(7) Finally, a row of Boards makes co-ordination at district and field level extremely difficult: this subject will be dealt with in Part 6.

(8) *The open market.* As has been already stated, buying and selling is a universal commercial activity. If Boards and other State intervention have been necessary, owing to lack of effective demand and competition in many areas, there should always be, on a not too distant horizon, a day when the open market itself, with some regulation, can relieve government of much of its tasks, as incomes and demand rise. Ways of making the open market more efficient, and safeguards against abuse should always be considered before deciding on governmental or parastatal or even co-operative monopolies.

PART 6 ADMINISTRATIVE STRUCTURE AND CO-ORDINATION

XVI The Central Agricultural Function

General Argument

Agricultural administration is a highly complex amalgam of several major functions. It is probably best to arrange these with the Ministry of Agriculture at the centre, with its vertical line running from the Ministry to the farmers, and to arrange the other functions around it, with those functions which are most intimately connected with production and marketing nearest to it and other liaison or co-ordinated functions further out (see Diagram 1).

The Ministry itself has a service and co-ordinating function which runs right down its chain of command — we assume that the farmer is sovereign in making his choices of the services offered. It has also a broad sectoral planning and budgeting, and an inter-departmental co-ordinating function, the breadth of which is for discussion.

Its most direct responsibility will be crop and animal production and health, with more specialised departments for forestry and fishery. In this responsibility it must have an intimate relationship (both guidance and liaison) to research and hence with university and other external organisations, and to natural resource survey, especially land and water utilisation.

A second very close link is with certain *general* infrastructural services — electric power, water and irrigation, roads and works. However, these services have other customers (urban and industrial) and may well be controlled by separate ministries. Since power, irrigation, feeder roads, and rural works are absolutely vital components of production, it seems clear that each should have a major division for agriculture and rural services, and possible that irrigation (particularly minor irrigation) which has a solely agricultural function, should be within the central Ministry of Agriculture.

A much more difficult and controversial relationship is with the whole commercial function — supply (inputs), credit, marketing, with several industrial linkages (processing, industrial crops, fertiliser, chemicals, machinery, and associated research). Probably the commercial function, with its relationship to a much wider nexus of buying and selling, its links with banks, and its varied institutional links (co-

operatives, crop Boards, etc) should be distinguished from the industrial function (major fertiliser, chemical production, major processing) which can well be under a separate ministry. There is a wide range of different national types of commercial organisation, sometimes ideologically decided, and the placing of the commercial function depends in some degree on the local situation. But, while the Ministry of Agriculture is very closely involved, even as a production organisation (prices, access to markets, etc), it is arguable that commerce requires such different personnel and skills that it is better treated as a major field of its own, under a separate department or even ministry.

In any case, whether agricultural commerce is in a special division of the Ministry of Agriculture or a separate ministry within the central core of co-ordination, it should be separately represented at district and sub-district level by a commercial officer dealing with credit, supply (from district level) and marketing.

In addition, there are a number of functions, usually included in 'rural Development', such as health, education welfare, local government, which are much less intimately linked with the central Ministry of Agriculture, and where good liaison, at all levels, is the prime necessity. These, on the whole, are spending social services, with only indirect effects on production and commerce.

It is worth remarking that, in the early stages of development, production and simple marketing will be of key importance. Much later, when basic production problems are better solved, agriculture and industry tend to be much more closely linked — eg by contract production of material for canning, and by semi-industrial management of commodities (rubber, tobacco, etc) grown for manufacture and export. At this stage the Ministry of Agriculture may become rather more narrowly concerned with production and technical advice, as the supplier of raw materials to major commercial and industrial enterprises, and as the guardian and helper of the remaining semi-subsistence section of small farmers.

Finally, there are obvious difficulties in dealing together with huge countries and medium-sized and small ones; there are UN members with a smaller population than that of a large Indian district ($1\frac{1}{2}$ -2m), and this partly explains why the Indian district needs a considerable size of administration. But although in fairly small countries there may be considerably fewer ministries and much closer relationships between the centre and the field organisation, the *functions* are still the same. A small country may have a single 'Ministry of Rural Affairs and Co-operatives', but it will find itself dealing with roads, and irrigation, and rural works, and commerce, and rural health, and education. In the two diagrams many of these functions are shown as separate ministries,

DIAGRAM 1

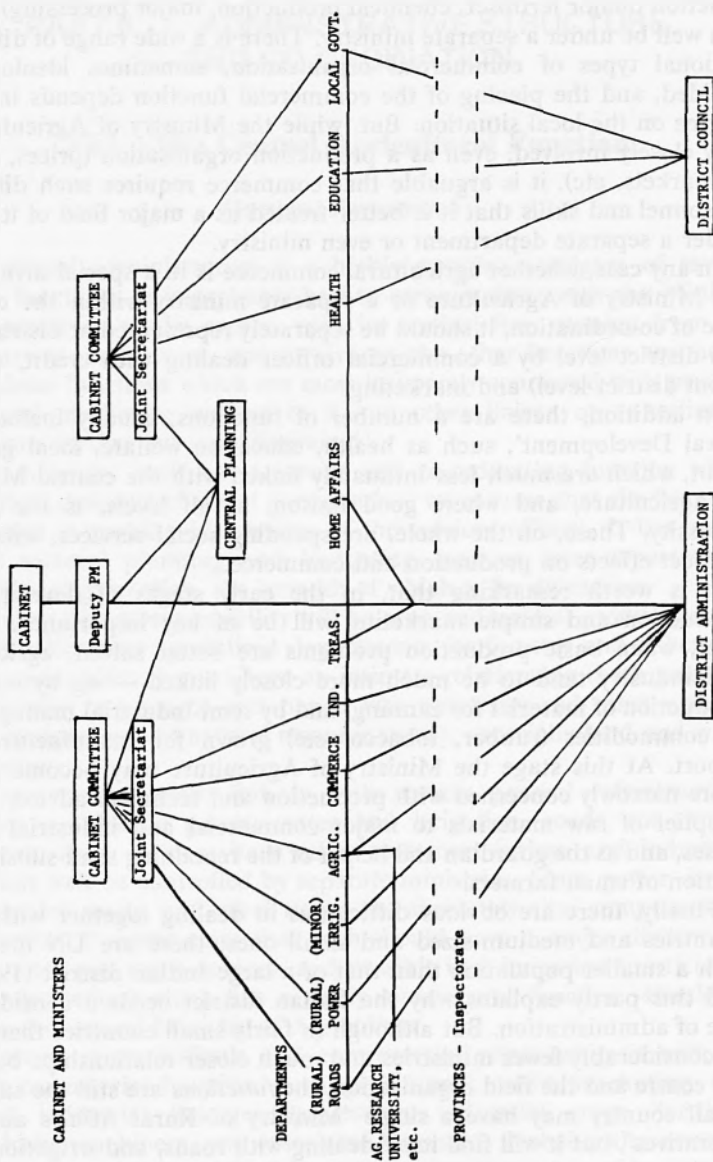
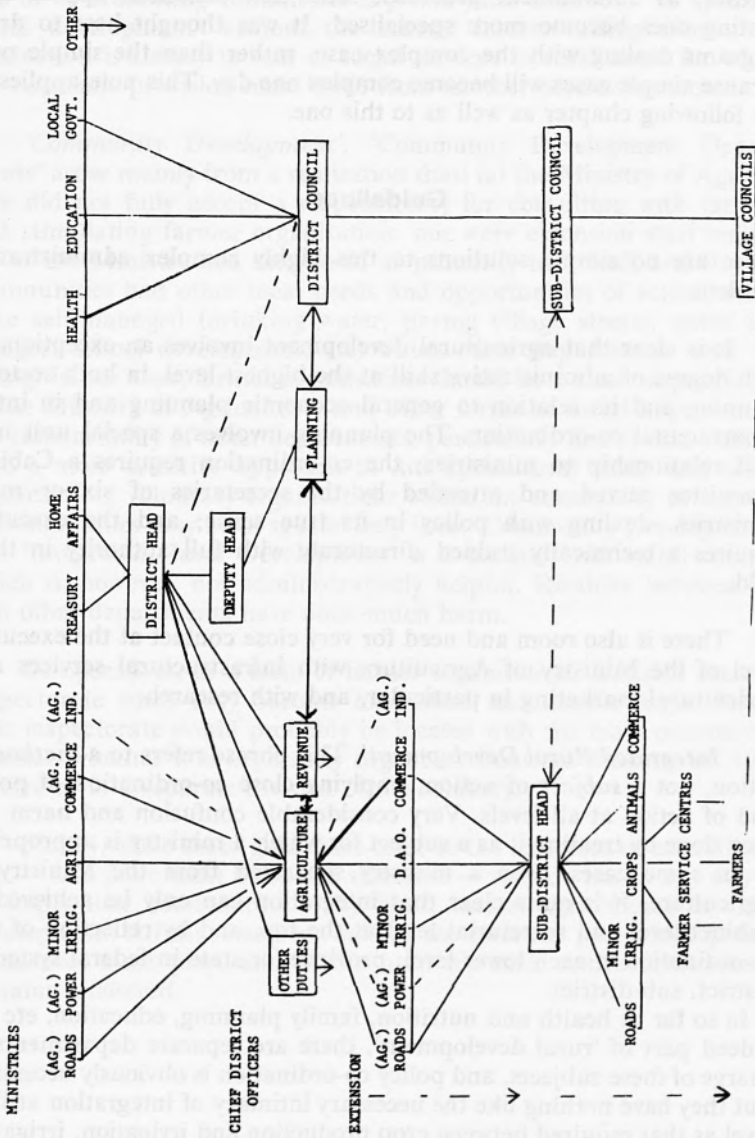


DIAGRAM 2



but it is the co-ordination of *functions* which matters, not the names. Further, as development proceeds, some new functions appear and existing ones become more specialised. It was thought best to draw diagrams dealing with the complex case, rather than the simple one, because simple cases will become complex one day. This note applies to the following chapter as well as to this one.

Guidelines

There are no simple solutions to this highly complex administrative problem.

(1) It is clear that agricultural development involves an exceptionally high degree of administrative skill at the highest level, in both sectoral planning and its relation to general economic planning and in inter-departmental co-ordination. The planning involves a special unit in a staff relationship to ministries; the co-ordination requires a Cabinet committee served and attended by the secretaries of six or more ministries, dealing with policy in its true sense; and the executive requires a technically trained directorate with full authority in their field.

(2) There is also room and need for very close contact at the executive level of the Ministry of Agriculture with infrastructural services and agricultural marketing in particular, and with research.

(3) '*Integrated Rural Development*'. This phrase refers to a *method* of action, not a *subject* of action, implying close co-ordination of policy and of action at all levels. Very considerable confusion and harm has been done by treating it as a subject for which a ministry is appropriate — in some cases, even a ministry separated from the Ministry of Agriculture. It is quite clear that integration can only be achieved at Cabinet level and secretariat level at the top, and by reflection of this co-ordination at each lower level: province (or state in federal systems), district, sub-district.

In so far as health and nutrition, family planning, education, etc are indeed part of 'rural development', there are separate departments in charge of these subjects, and policy co-ordination is obviously necessary. But they have nothing like the necessary intimacy of integration at field level as that required between crop production and irrigation, irrigation and power for pumps, production and marketing, marketing and feeder roads: they are therefore shown (Diagrams 1 and 2) within slightly

looser links of co-ordination at field level. Anything which reduces the size of co-ordinating committees is *prima facie* desirable. To speak of 'rural development' without the central income-raising element of production is simply to talk of social services to rural areas for which the economic provision must come from another productive sector.

(4) '*Community Development*'. 'Community Development Departments' arose mainly from a realisation that: (a) the Ministry of Agriculture did not fully accept a responsibility for consulting with farmers and stimulating farmer organisation, nor were extension staff trained for it: the Ministry had seen itself as primarily technical; and (b) that communities had other local needs and opportunities of action, sometime self-managed (drinking water, paving village streets, paths and bridges, school development, etc) which other departments were not filling. In our view, farmer organisation should be a clear responsibility of the Ministry of Agriculture, and other forms of social improvement the responsibility of other departments, particularly health and welfare, with a more sensitive approach to non-agricultural needs and social organisation; voluntary organisations within the community or a group of communities may be of special help here. 'Community Development', like 'Integrated Rural Development' is a holistic (and valid) concept which is, however, not administratively helpful. Rivalries between CD and other departments have done much harm.

(5) Co-operatives, as a form of farmer organisation, certainly need an inspectorate when they become formalised and handle major funds. This inspectorate would probably be located with the main commercial function whether it is separately organised from the Ministry of Agriculture or in a separate division of the Ministry.

(6) Finally, while these guidelines refer to the structure of administration — and there must be such a structure — they do not in any way at all imply that administration, by itself, creates agricultural or rural development. All that has been said of the essential part which people themselves must play, and of the need for their native involvement, remains unaltered.

XVII The Chain of Execution and Co-ordination

General Argument

In federal systems State governments may have full (but more usually co-ordinate) responsibility for agricultural development. The functions of the centre (XVI above) then fall at State level, save for any reserved central powers, planning controls, inter-state functions, etc. This relationship is not dealt with here, and the 'layers' of administration are taken as 'Centre' — 'Province' — 'District' — 'Sub-district' (see Diagram 2).

Two main issues of considerable difficulty arise here — devolution of authority and inter-departmental co-ordination below the centre.

It is clear from all that has been said that the very variety of agricultural (physical and social) situations demands considerable flexibility in the design and execution of programmes and services which are to reach individual villages. This involves a quite considerable planning function, as well as co-ordination, at a level where the detailed reality of village situations can be fully appreciated and, as far as possible, met. It also involves skilled staff. Planning must therefore be situated at the lowest level where it is practicable (finance, trained manpower) to station adequate technical and economic staff. Desirable as it might be, the sub-district does not meet the staff requirement; so that the district is the obvious choice.

Devolution must imply devolution of a large measure of financial authority and responsibility; and this in turn involves and facilitates administrative authority in co-ordination. Clearly, the amount of financial resources to be made available to a district must be limited by an overall total, centrally divided between districts. But, within the total allocated to a district, considerable responsibility for sub-division of resources between subjects (projects) would lie at district level. A block grant for a considerable proportion of district expenditure would be desirable. This additional responsibility will imply that a better share of the best administrators, technicians, and economists should go to the district as compared with the centre. It also involves a degree of risk and trust which the centre is almost always reluctant to accept. This reluctance is at the root of serious delays and inefficiencies in field administration and planning.

Co-ordination is more intellectually difficult to structure, and also meets a difficulty similar to that of financial devolution — in this case, unwillingness to devolve power.

The central difficulty in co-ordination lies in the relationship between specialists and general administrators, and is in essence identical with the problem in large industrial firms — does the works engineer obey the works manager or the chief engineer at a higher level? It is not satisfactorily solved by saying that the engineer is 'administratively' answerable to the works manager and 'technically' responsible to the chief engineer. (In agriculture, for 'Works Manager' read 'District Commissioner' and for 'Chief Engineer' read 'Ministry of Works'.) Clearly, the more that departmental and technical sovereignty is emphasised the less co-ordinating *authority* is possible at lower levels.

This problem is *not soluble by giving supreme authority to either specialist or generalist* — except in dire emergency when speed and decisive orders on the spot are essential. It is necessary to look more closely at the actual nature of decisions, most of which contain both a technical and an administrative element. Clearly, with generalist and specialist, each has to take account of the other's expertise — the generalist cannot overrule the technician on his own ground, nor vice versa. In practice, clashes do not often arise on *purely* technical matters: they arise because the technical man's central department has a 'policy' which is not merely technical but partly administrative; because the central co-ordination has in part failed; or because the technician has inadequate devolved authority to use his local judgment or compromise when necessary.

What is needed for the 'District Co-ordinator' is not the authority to give orders to all departmental representatives (except in dire emergency) but *the authority of a good chairman*, whose business it is to elicit the technical facts from departmental colleagues, and to square these with any overall policies which are binding on him, so that decisions can be agreed, with only rare reference to higher authority.

If the major operational unit is the district, it is necessary to consider for a moment the tier immediately above and immediately below. It is clearly undesirable to have two fully staffed executive and co-ordinating units below the centre (or State). The province, covering a few districts, would therefore be lightly staffed by quite senior individuals with a minimum of subordinate staff, as an inspectorate and to advise on those issues which clearly involve two or more districts. The notion that, because 'Province', covering a few 'districts', is 'higher' in the hierarchy, it should be more heavily staffed and give 'orders' on the full range of topics is a mistake, save in special cases where a province covers some distinct ethnic region which almost has self-government — ie where the province carries out most of the functions of the centre itself. Unless this rule is observed, the district will become a postbox, and its

relatively higher contact with the reality of village situations will be lost in effective decision-making.

As to the lower tier, the sub-district (40,000-80,000 population), it has a triple function. First, and most important, to diagnose and respond to village needs, and to devise provisional programmes, with any necessary help from a technical team, for final submission to the district. Second, to see that co-ordinated decisions, made at district level, remain co-ordinated at their level, and to amend or refer discrepancies; and, third, to respond to district instructions. The sub-district, which is the meeting place of the field extension and other departmental staff with village contact, is the eyes and ears of the district.

At the time of independence, many of the new sovereign governments often had considerable suspicion of the powerful colonial 'District Commissioners'. They wished to start a flow of quite fresh policies through the whole administrative system and feared obstruction at this point in the administrative chain. In consequence, not only were personnel changed, but in many countries the commissioner's powers were reduced, or they were replaced by ministers or political appointees; or the 'Party', in single-Party States, was given the major authority. But this phase has passed in most countries (some never took such decisions); the district staff are politically acceptable and the need for skilled and responsible co-ordinating management at district level has re-emerged. Indeed, in some countries, the district commissioner now has too many rather than too few duties, and a more realistic problem is whether he can conceivably have time to act as a development co-ordinator for the agricultural community in addition to all his other duties — not only in the non-agricultural sectors of development but for law and order, security, perhaps revenue, and occasionally judicial matters.

On the whole, a strong one-party organisation at district level, in parallel with the district administration and with similar aims, causes much confusion, indeed even more than a parallel district council, partly because such councils are at least responsible (answerable) for certain functions, whereas the 'Party' is a ginger group and an arena for political ambitions, without similar answerability. Political policy should be coming down clearly to the district government from Cabinet level.

The nature of the 'District Authority'.

In both diagrams agriculture and its *most intimately* connected functions (roads and works, irrigation and power for it, commerce and agricultural industry) are shown as a simple line of command from the Cabinet to the farmer, with co-ordinating chairmanship at each level

down to sub-district; health, education and the municipal or 'local government' functions are shown separately as councils. The reasons for this were given mainly in Chapter V. Whether the district head is a commissioner or a political figure is a matter of decision in each country.

But more complex and controversial issues arise concerning the councils. These can take many forms, sometimes directly elected, sometimes indirectly from lower councils, sometimes dominated by a one-Party system, sometimes dominant over the district commissioner (then perhaps called 'Secretary'), sometimes under his chairmanship. We are here concerned not with the form or nomenclature but with functions. We have taken the stance that councils are statutory bodies, elected by some method, with clearly defined responsibility in health, education and 'municipal services' (rural as well as urban), with their appropriate staff, linked to parent departments co-ordinated at central level, and linked to the district head by direct liaison and through the district planning staff at the technical level.

Suggestions have been made that the councils and co-operatives could be merged. This would give them an economic role covering inputs, credit, marketing, and services to farmers, and would thus involve transferring to them the grouped agricultural responsibilities from district level downwards. We believe that, for most countries, this would be to give a responsibility for which councils are not yet ready, and would make too abrupt a break in the chain of agricultural development organisation from centre to farmers.

This issue is not a trifling matter of structure or institutional form. It touches fundamental issues of belief and judgment about the 'right' course for agricultural and rural development to follow, issues upon which serious opinion can be deeply divided; both points of view were strongly put forward at the Ditchley Seminar.

A main cause of this division lies in differing assumptions. Those who believe most strongly in elected councils at district level and below often see officials and administrators as authoritarian, red-tapeish, insensitive to important popular needs and aspirations; and they see elected councillors as truthfully and honestly reflecting those aspirations.

Those who put more weight on governmental action through government servants see them more as qualified managers endeavouring to execute complex development policies, and they are apt to see elected councillors as motivated by personal political ambition, party interests, etc, becoming less and less representative of the real wishes and needs of their humble constituents as their sphere of action widens from village to sub-district, to district.

Both points of view have some validity; which should prevail in any

particular country may depend chiefly on levels of public education and, especially, on the strength or weakness of a tradition of public service at all levels and the quality of the officials and non-officials.

Many countries attempt a compromise. What is important is that the compromise should be clear cut, unambiguous, so that both officials and non-officials know clearly where the limits of their responsibility lie.

In this document two points of compromise stand out. At the village level we have emphasised very strongly that junior officials must *listen* to farmers, and that the organisation of farmers in groups, with their own leadership, is of vital importance. Secondly, we have left to councils a major responsibility for social services up to district level. We have not, however left with councils the major responsibility for technical agricultural development and planning. For this there are two main reasons. First, the technical complexity of the task and the need for a clear organisation and co-ordination from the centre to the village. Second, political: in countries where political and economic and social power and influence in the rural areas is largely monopolised by an elite it is hard to be convinced that the poorer sections of the community will get an equitable or adequate share of development benefits, at least in the early stages of development when the poor are unorganised and dependent. At what stage the poor will be able to make their needs felt, by their growing security and education, is a matter on which each government must make its own judgment. Until that point is reached a government which believes in spreading development to a far wider section of rural society may have to take responsibility for its own action right down to contact with farmers.

Guidelines

- (1) It may be possible to structure agriculture and its *most closely related functions*¹ operating at district level under the chairmanship of a 'District Chief Agricultural Development Officer', with the rank of 'Additional District Commissioner', leaving on a liaison basis other departments (health, education, etc) which have less intimate links with production and marketing.
- (2) For such a unit to be effective much more financial and sub-planning authority would have to be devolved than is now usual.

1 I.e Crops and animals, minor irrigation, minor works, minor roads, local power supply and commerce.

(3) A district planning unit would be essential, operating within overall policy and responsible for suggesting co-ordinated local programmes, and in a staff relationship directly responsible to the district commissioner.

(4) If the district commissioner is to play a key role, he must either be relieved of some other functions (judicial? revenue?) or supported by an Additional DC and planning staff.

(5) The 'Chief Agricultural Development Officer' at district level would be primarily responsible for co-ordination of the closely related agricultural, technical, and commercial services.

(6) In addition to representation for crops and animals at sub-district level, minor irrigation, minor roads and local works, health and commerce should be represented at that level; power supply will probably not be represented below district level.

(7) A similar chairmanship for these functions would be needed at sub-district level.

(8) The emphasis on a 'chairmanship' function in this section is essential. Without it (as defined above) the argument about departmental sovereignty *versus* district generalist co-ordinator is insoluble, and gives rise to constant conflict. And, indeed, the whole argument on administration emphasises the continuing need for a few absolutely first class administrator-managers at the district level. It is at that level that the lines of specialisation converge. It is fundamentally in order to serve and strengthen the district — ie the field commander and his staff who are actually fighting the battle for co-ordinated rural development — that the entire administration should be designed.

(9) These Guidelines (and the diagram) sketch out one set of practical implications for ensuring co-ordinated agricultural effort below central level. The names of posts could vary country by country; it is the functions, and the ways in which they are related, which matter.

XVIII Farmer Service Centres

General Argument

This is the last link in the chain of service organisations.

A good number of projects, and some country programmes, have incorporated an effort to design or provide administratively a point at which farmers can easily find access to a number of services — supplies of inputs, credit, technical advice, farm equipment and necessities are the most usual needs. This is the kind of service which the 'market town' has provided all over the world. In a prosperous countryside with good purchasing power among farmers, private commerce can provide much service through multiple stores or a range of small traders, a bank branch, mechanical repair facilities, sales of fertiliser, pesticide, wire, rope, cement, etc. However, not all countries have a fine mesh of 'market towns', 10 to 15 miles apart, or even major villages 6 to 12 miles apart, with the necessary all-weather roads and quick transport, whether public or private. Some efforts have been made to fill this gap administratively, so that at least government services are within a 5-mile distance of most farms. Some (but few) successful co-operatives or co-operative unions may do the same, though with a more limited range.

Where government has to provide at least a minimum (eg seed, fertiliser, credit, sprayers, technical advice), there are often problems of the expense of manning such centres: staff are too scarce to wait daily for visits and customers, and some compromise has to be reached.

Guidelines

- (1) The provision of such centres is clearly desirable.
- (2) The number needed depends more on the geographical size and ease of access in a sub-district than on population. A service radius of 5 to 7 miles is desirable, unless minor roads are exceptionally good. In very sparsely populated areas even this may be impossible, and a small trader-manned village depot with a weekly visit on a regular day by an extension officer may be all that is possible. A more heavily populated sub-district (20 x 15 miles, 250 population per square mile = 75,000 population) might need three centres plus one attached to sub-district

headquarters: at 1 assistant extension officer to 780 farmers¹ this would allow 3 per centre, who could easily man it for purposes of technical advice (not for sales) in rotation with field visits.

(3) Economy in staffing can also be helped, eg by reducing the credit staffing outside the peak periods when most credit is needed; by using traders as stockists for physical supplies; possibly by the use of a mobile unit, which can sometimes have a training as well as inservice function.

(4) Buildings should be small and cheap, but storage space is essential.

(5) The 'managed' type of co-operative, where the committee consists of a mixture of officials and farmers, with small farmers well represented, and which has an officially paid manager and accountant, may well be an excellent halfway house between official and local representation; if it covers approximately the 5-7 mile radius of villages, it could well be the best instrument for running the Farmer Service Centre; and this is being tried.²

(6) In some areas, simple facilities for farmer training could be combined with the service centre, without prejudice to the larger and more formal Farmer Training Centres, which are inevitably much more sparsely distributed and require more equipment and residential accommodation.

1 75,000 population = 12,500 families = about 9,375 farmers. 3 assistant extension officers x 4 centres = 1 extension officer to 780 farmers.

2 Farmer Service Society (India).

XIX Planning Local Programmes¹

General Argument

Adaptation of very local programmes to needs and opportunities and capacities must start from the village level (diagnosis, consultation, tentative formulation of a locally agreed programme). If it starts higher up, a cut-and-dried programme will be offered to the village (or almost forced on it) with an inevitable loss of possible participation and initiative.

Local, village proposals will be collected at sub-district level, and they will have, almost certainly, some differences but also many common needs, especially where the sub-district is physically and socially fairly homogeneous. The first aggregation, mainly of demand, is the first stage of planning.

At district level there should be a district planning staff. At this level supply factors (money, staff, fertiliser allocation) will begin to play a major part. Further, the district, although with much more discretion than is now common, will be constrained by many elements of the central plan, not merely in quantum of money and other resources, but in their necessary collaboration in major *executive* plans centrally directed (trunk roads, siting of major factories, a large irrigation programme).

By 'executive' planning is meant those parts of a plan which government can fully undertake and complete from its own resources; planning for farmer production is not in this category, since it requires farmer decisions and participation: it can be called 'service planning', or 'enabling planning'. The detail of enabling planning must be done at district level and below.

This point of integration and resolution of stresses between national plans and local needs is of major importance, and the point where 'planning without implementation', which is very common, is avoided.

These few points, put very generally and simply here, mask a very difficult and complex task, far beyond the time available to overloaded executive and technical staff at district level. It is for this reason that a district level planning staff is essential. Many experiments are being made in this field. It is vital that a district plan should not be just a 'shopping list' of demands, but already reconciled with supply factors and with broad national imperatives and executive plans.

¹ See also Guy Hunter in *Extension, Planning and the Poor*, (ODI, London, 1977).

Guidelines

(1) Planning is a function with necessary components at all levels, from sub-district to centre.

(2) A unit for rural development planning should be formed at district level. The core of such a unit should probably be a district officer (on his way towards a district commissioner appointment) and two (or more) economists, one at least with agricultural economics training. The core staff (which could be larger in large districts) would have a call for specialist advice on the senior departmental staff and technicians at district level. Their responsibility should be clearly to the district commissioner, but they would have a close link with the central planning unit.

(3) Their main task is the reconciliation of proposals coming from sub districts with central imperatives, and of matching the devolved financial authority, *plus* central grants, with the plan for district implementation.

(4) It is highly desirable, as has been stated already, that the district commissioner, in consultation with his district departmental colleagues, should have power to switch *devolved* resources from one local programme to another, in order to adapt to previously unforeseen opportunities, failures, or delays. The words 'District Commissioner' here mean 'the chief authority in district administration', which may differ from country to country. It is, however, essential that there should be one clearly recognised 'Authority' through which district planning decisions, within district competence, can be decisively taken.

(5) Planning is not only concerned with the physical resource content and requirements of local programmes, but also with personnel resources. It is obvious that a district must be subject to an overall financial ceiling for personnel salaries, and possibly to national constraints affecting scarce skills. Moreover, personnel budgets are normally settled by single departments at the centre. While districts should have full discretion in *deployment* of their quota of personnel, needs for additional personnel¹ in particular categories will have to be negotiated with the centre (and between ministries at the centre competing for budget allocations). These needs will therefore have to be foreseen and justified well in advance.

1 Except for very junior grades.

(6) There is clearly the possibility of considerable tension between district planning, which should reflect what is possible and profitable for the farmers, including poor farmers, to do, and central planning, which reflects national needs, such as more food, or more foreign exchange earnings from export crops (not to mention the possibility of attracting external aid for projects favoured by donors). It may *not* be most profitable for very small farmers to grow staple foods, but to concentrate on a high-value crop so as to maximise income from his very small holding. It may *not* be easy to spread cotton production (with its high burden of plant protection) if farmers can grow an equally valuable crop with less work. These are real difficulties, involving different criteria for defining 'the best' use of land — best in the 'national economic interest' (however defined), or best in the interest and capability of the farmer? The recommendation here is that if the 'national interest' results in programmes from which the small farmer and the rural poor can, for one reason or another, reap no benefit, then it has been wrongly defined.

XX Special Field 'Projects'

General Argument

The concept of 'projects' is an extremely dangerous one. If it means that any proposed course of action should be carefully prepared and properly managed, all administrative programmes should be 'projects'. If, however, it means that special additional funds, special personnel resources, and possibly an extraordinary form of administration is to be applied to a (relatively) small area, then the reasons for such a decision and its probable future consequences must be clearly defined. Otherwise, projects, often described as 'pilot' and therefore hopefully replicable on a large scale, turn out to be non-replicable escapades.

This is particularly true in the case of donor-aided projects. Because donors want to 'succeed':

- (1) an inordinate amount of time and scarce administrative resources are spent on preliminary analysis and appraisal, partly or mainly to satisfy the donor;
- (2) additional, hand-picked personnel are allocated to it (robbing other areas);
- (3) expatriate personnel, later to be withdrawn, are often added, and training of their replacements often unduly delayed;
- (4) very detailed plans are made before field trial, and these often prove inflexible;
- (5) quantified targets are applied to unquantifiable operations of uncertain outcome, particularly in 'enabling plans'; and
- (6) the determination to succeed often results in even more resources being applied than those originally planned.

These remarks apply to formal, fairly large-scale 'projects'. The word is also used loosely for quite small proposals — eg to divert or dam a small stream, where some blueprints, money allocation and 'planning' are required. These elements of preparation should be part of normal administrative work.

It is also sometimes used for major administrative experiments — eg a new way of deploying staff. These are often genuine experiments with a clear intention of testing performance before full-scale replication.

Justification for an exceptional degree of planning, or of co-ordination, or of expertise (or of all three) does of course arise in 'one-off' operations, such as the planning and establishment of a new settlement scheme, or a major dam, where initial central control, large funds, etc are involved, and where no question of replication arises, save for an

exactly similar project (eg the progressive expansion of rubber schemes by the Federal Land Development Authority in Malaysia).

Even where replication is not intended, provision for 'handing back' the project to normal administration is often neglected, so that special arrangements continue long after their justification has passed.

Where replicability is of the essence of a project, the requirement that the country's government and economy can staff and finance similar work widely, or even nationally, is also of the essence. The only logical exception to this rule is where *it is the actual addition to money and local personnel* which has proved critical to success, and where government *is* prepared to invest more nationally in rural development at the expense of other sectors. There are almost certainly cases (eg where an extension officer has to serve 2,000 farmers, without transport) in which even the existing government expenditure is being almost totally wasted because it is below a level critical to success.

Finally, it has been widely remarked that, while the economic and technical factors in major projects are planned in great detail, the institutional factors, training of personnel, and information to the farmers affected are often ignored until much too late (Thailand irrigation schemes have been one example).

Guidelines

- (1) It is essential to define at the outset whether a project is intended to be replicable or not.
- (2) If the project is designed to test whether extra resources are the critical factor by which, in a normal situation, relative failure and waste of existing resources can be turned into success, then the increment must be one which the government could at least conceivably contemplate for general application. In assessing the result of the pilot scheme, it would then be necessary to analyse carefully whether it was the resource increment or some other factor (Market, prices, new seed, fertilisation, water control, and institution) which was largely responsible for success.
- (3) Institutional factors, training needs and information needs should have much more, and earlier attention in project formulation.
- (4) 'Special Authorities', 'Project Agencies', etc should in principle be regarded as temporary, starter-motor arrangements, so that the project area can soon be turned over to the normal administrative system. Unless this is done the country will be spattered with special systems,

often outside the control of the district administration, and with special access to the centre. This cuts across normal lines of authority, demoralises the normal administration (which is left with all the black spots), and may disorganise and weaken the Ministry of Agriculture (eg by removing both staff and responsibility from it). Yet the Ministry remains the main source of technical training and competence and often controls research and many other elements vital to project success.

(5) Finally, 'maximising' projects, with high use of mechanisation and capital inputs, heavy use of specialist personnel, heavy credit requirements etc are apt to intensify the advantages of rich, larger farmers over the poorer small-holders. Prestige successes of this type, whether it is the donor or the government who seek prestige, are very unhelpful to the majority sector of the rural population for whom development is most desperately needed. In most cases, asking the two questions 'Who benefits?' and 'Is it replicable?' will be the best criteria for approval or rejection of such projects.

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