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Problems of Agricultural Administration and Extension Services

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THERE is concern in developing countries about the efficiency of agricultural policy decision-making and programme implementation. More concern is expressed about implementation than about planning.¹ But it is important to recognize that these two aspects are inseparable.

Agricultural administration undoubtedly acts as a constraint on development. The extent of this constraint is seldom made explicit in published official documents but both academics and administrators have considered it important.²

Some problems of administrative efficiency are purely technical and the province of experts in public administration. Agricultural administration has a particularly strong claim upon their attention both because of the complexities by which it is characterized and because agriculture is intolerant of administrative inefficiency. Relatively minor delays and oversights in co-ordination can have the effect not simply of reducing output but of rendering programmes wholly abortive.

The complexity of agricultural administration stems from the nature of agriculture itself. The range of policy instruments relevant to agriculture is large, e.g. the range of policy instruments affecting the availability and use of new resources and techniques, the pattern of land tenure and settlement, the availability and efficiency of markets is, for each of these

¹ See J. Price Gittinger, *The Literature of Agricultural Planning*, Centre for Development Planning. Planning Methods Series No. 4 (National Planning Association, 1966), p. 47.

² See, e.g., Albert Waterston, *Development Planning - Lessons of Experience*; Baltimore, Johns Hopkins Press, 1965, and F.A.O., *The State of Food and Agriculture 1965*, p. 125. One group of administrators gathered for frank discussion reported: 'there seemed to be unanimous agreement that existing organizational and administrative problems are inhibiting agricultural development and reducing the efficiency of technical and scientific knowledge in serving agricultural production' (U.N. Department of Economic and Social Affairs, *The Workshop on Organization and Administration of Agricultural Services in the Arab States*, New York, U.N., 1964, p. 3. This is an excellent survey of problems in agricultural administration which, although it was produced in relation to one specific region, is capable of wide generalization.)

categories alone, very considerable. Moreover, there is often differentiation of agricultural regions within a nation. Thus settlement schemes, crop-spraying programmes, training programmes, crop-insurance schemes, pricing policies, nutrition programmes, ranching development schemes, export production drives, and so on, only begin to exemplify the range of activities subsumed under agricultural policy. These activities may each be carried out in a wide variety of ways, together or separately, and differently in different parts of the same country—or even for different farmers within the same region.

Even if all government agricultural policies were to be the responsibility of one single Ministry of Agriculture, it would need to be organized into many departments and units. As it is, there are inevitably many policy instruments vital to agricultural development which normally are not the immediate concern of the Ministry of Agriculture. Policies affecting the prices paid and received by farmers may be the concern of a whole variety of other ministries, especially finance, co-operation, commerce, transport, and labour.¹ Often too, irrigation, community development, land reform—and even livestock development—may be the particular concerns of ministries other than agriculture. That there should be a division of ministerial responsibility is inevitable when so vast a span of control would otherwise be required of a single ministry. The optimum pattern of this division may well repay study but the inevitability of some division of responsibility must be faced.

Repeated alteration of the division of responsibility between ministries may be symptomatic of an awareness of the difficulties of co-ordination (though it often does more harm than good). It may also be symptomatic of problems which give rise to the proliferation of semi-autonomous agencies. Among these the administrative inadequacies of the agricultural ministry may figure large. Particular stimulus to the creation of para-statal agencies is given by the need to be free from the restrictions of civil service procedures with regard to salaries, terms of service, promotion and seniority, accounting procedures, ploughback of trading surplusses, and so on. The recognition of these needs may indicate a need for revision of traditional civil service procedures.² It may simply reflect general problems such as shortage of skilled manpower which the overbidding of a new agency may do little to solve.

The complexity of agriculture makes the problems of co-ordination especially great. The seasonality of agriculture makes failure to solve these problems especially serious. It is not surprising that Waterston concludes that, in policy implementation, the greatest shortfalls are usually in agriculture.³

¹ Depending, of course, on how ministerial responsibilities are in fact organized.

² Consulting firms sometimes prove to be far more efficient in their work than would be a government department doing the same job. One important reason is that they are allowed to concentrate on the work in hand. New agencies may seek simply to do this.

³ *Op. cit.*

Policy-making aspects of agricultural administration

Effective policy-making requires (a) the identification of relevant policy alternatives; (b) the selection from these of the optimum pattern of consistent policies based on sound prediction of the outcomes of policies considered, and (c) the appropriate evaluation of these outcomes in relation to policy objectives.

A major shortcoming of agricultural policy-making is the failure to base agricultural development policies on an effective diagnosis of the constraints on agricultural (i.e. farming) development. Sometimes this derives from an approach to national development planning in which agricultural policy is a means not to *agricultural* development but to *national* economic development. This approach—even in situations where these two objectives can hardly be sensibly distinguished—leads to the posing of a set of questions in relation to agriculture which, however necessary, are insufficient for the formulation of good agricultural policies. It asks ‘what quantity of food and exports are required of agriculture in order to support industrial development and what minimum quantity of inputs is required to produce this output?’ rather than ‘what are the constraints on farm output, and which combination of measures will most effectively relieve them and stimulate farm production?’ or even ‘how great is the agricultural potential of the country and what is required and justified to secure its exploitation?’ It is not suggested that any of these approaches is adequate in itself: nor perhaps is any of them to be found exclusively adopted. However, one effect of the direction of policy-making by economist planners has been an unbalanced concern for the role of agriculture in promoting industrial development and too little awareness of farming realities or farming potential. Unfortunately, too, this imbalance is not always corrected by agricultural administrators who also suffer typically from ‘urban bias’.¹

Effective diagnosis of constraints on farming development must be the basis of agricultural policy-making. This demands a regional approach to agricultural planning.² It also indicates a major role for agricultural economists. For it is insufficient simply to list constraints on farming development—even where they are obvious. And they almost never are obvious.

I have often found extension campaigns offering advice which farmers were patently not following and which, on examination, they could not reasonably be expected to follow. Last year I spent a day with extension officers convincing them that it was *infeasible*—not just unprofitable—for farmers to follow their recommended package of cultivation practices on paddy rice, given the labour available to them. Such recommendations arise from failure to diagnose the true constraints on farm output. That

¹ See M. Lipton, ‘Urban bias and agricultural planning’ forthcoming in a Report on a Conference on India’s 4th Draft Plan, Institute of Development Studies/Sussex University, March/April 1967.

² See A. T. Mosher, *Getting Agriculture Moving* (New York: Frederick A. Praeger, 1966), p. 172; and Raanan Wietz, (ed.), *Rural Planning in Developing Countries* (London, Routledge & Kegan Paul, 1965).

diagnosis is not a simple matter is demonstrated by the ability of senior extension officers to generate and pursue misguided programmes. Even if it were a simple matter to identify the constraints on farming development, however, it is in any case additionally necessary (a) to propose policies for relieving these constraints; (b) to predict the impact of these alternative policies—separately and together—in such a way as to allow sensible choice. For this the agricultural economist is essential—if not sufficient.

Yet how many countries have any unit whose purpose is the diagnosis of constraints on farming development in the sense I have discussed? I believe that such a unit is essential to sound farm policy-making. It would use a farm-level approach and it would concern itself with an understanding (a) of what to the farmer constitutes an optimal farming system and how this varies with farmers' circumstances; (b) of the constraints which govern these systems; (c) of ways of releasing these constraints and of inducing changes in farmer behaviour; and (d) of the implications of various policies for injecting new inputs and techniques, reducing risk and uncertainty, and increasing incentives. Such studies are essential for the generation of useful hypotheses about relevant policies. In my experience it is a mistake to rely on the relatively superficial observations of field officers or the armchair deductions and ready generalizations of town based economists to perform this function.

Successful work in the above manner would indicate a wide range of policies to be relevant, not all of which would relate to the activities of one ministry or agency. It would, therefore, be essential that the unit had access to policy makers of many agencies and that the work of the unit acted as a focus for policy co-ordination.

From the findings of such farm-level research would emerge indicators of priorities for further agro-technical research as well as appraisal of the significance of current research or existing results. Thus it is essential that the work of the unit be brought to bear also on agricultural research programmes.¹

One of the activities for which there is commonly inadequate provision is that of programme and project appraisal. (I speak now of *ex ante* appraisal rather than *ex post*.) Clearly the work of the farm-level research unit would lead directly to programme appraisal. Again, this requires access to policy makers in many agencies. One product of pre-project appraisal is a strengthening of the evidence for desirable policies at the central planning level. Another is a raising of the standards of evidence and criteria required to support the adoption of policies.

The need for planning units at ministry level is argued by a number of writers.² Waterston calls them 'programming units' and sees their role as

¹ The research-extension relation is a critical one. Again, I would stress the role of agricultural economics in defining research priorities and in the translation of research findings into extension advice. (See Weitz. *op. cit.*, for a more general discussion of the problem).

² See Waterston, *op. cit.*, 377 and U.N.D.E.S.A., *op. cit.* (article by Victor W. Bruce, 'Factors and Functions in the Organization of a Ministry of Agriculture').

project planning. It is argued that implementation is impeded by inadequate project design and that the place for this is with the implementing agency. The inadequacy of project design is one of the most serious weaknesses of policy formulation and implementation. A fundamental administrative weakness is the shortage of qualified personnel on the planning side. The essential skills of diagnosis, programme preparation, programme prediction, and programme selection are quite critically scarce.

The organization of policy-making

Ideally, the policy decision process is as follows:

Stage I. (a) The diagnosis of constraints on agricultural output (undertaken by Special Unit¹ attached to the Central Planning Authority but operating at field level), together with considerations of

(b) broad policy objectives and

(c) initial targets set for the agricultural sector (undertaken by Central Planning Authority),

leading to:

Stage II. Preliminary broad choice of strategic policies (undertaken by joint consultation between ministries, agencies, central planning authorities, and special unit).

Stage III. Design of detailed programme and policies (undertaken by programming units in ministries and agencies: co-ordination required at planning stage).

Stage IV. Prediction and appraisal of outcome of programmes and policies designed at Stage III (undertaken initially by programming units as part of process of design elimination; ultimately by special unit). At this stage reference back to Stage II might be necessary.

Stage V. Selection of optimum policy and programme package (undertaken by agricultural sector branch of Central Planning Authority).

Stage VI. Check for consistency with other sector programmes (undertaken by Central Planning Authority). Discrepancies might involve reference back to Stage V or even revision of initial targets. Iteration of procedures is likely to be necessary.

Stage VII. Finally, the plan is accepted for implementation as government policy.²

The purpose of this outline is not to lay down a universal blueprint for the administration of agricultural planning, but to contrast a logical decision-making process with the typical situation in order to reveal its

¹ This refers to the unit discussed above. I see it as a research unit of the agricultural division of the Central Planning Authority.

² Government policy will ideally make itself felt in Stages I, II, and V and, to a lesser extent, in Stage III also. The important thing is that it should be in turn affected by independent findings—especially those of Stage IV.

inadequacies. Typically, explicit and considered choice from the broad range of available policies (Stage II) is lacking. Policy is seldom referred to, or suggested by, sufficiently detailed preliminary diagnosis of constraints on development (Stage I). Detailed project, programme, and policy design is lacking (Stage III); prediction of the likely outcomes of policies is lacking (Stage IV); and selection of the optimum policy set is inadequately related to rate of return or other relevant criteria. Consistency checks seem quite commonly to be attempted but, lacking effective prediction of policy outcomes, this exercise may not be too meaningful. All too commonly, targets and programmes are totally unrelated.¹ At best they may be related by crude capital: output ratios and a planned value of investment. This latter is particularly irrelevant in situations where most farm investment is simply the unobserved and uncounted sum of innumerable small investments and where the marginal impact of investment projects is small in comparison with that of the routine services of the Ministry of Agriculture.

Policy-making problems of agricultural administration thus derive especially from the lack of skilled manpower² but a comparison of actual with desirable planning procedures may suggest serious weaknesses in those actually followed. *In particular, it is suggested that, in most countries, too little attention is paid to the understanding of farm-level realities; to the diagnosis of constraints on farming development; to the detailed design of projects and programmes; and to the prediction of the outcomes of proposed policies.*³

Problems of implementation

The need for co-ordination of plans and for detailed programmes of implementation has already been stressed.⁴ Failure of such co-ordination leads to nitrogen without potash, fertilizers without credit, and irrigation water without distribution canals; it leads to the generation of positive bad feelings between departments and to loss of morale.

The need for a flow-chart approach to the timing and phasing of activities and the need to spell out the decisions and action required cannot be over-emphasized. Even the routine monitoring of project progress—increasingly undertaken by central planning authorities—can

¹ Both are susceptible to becoming articles of political faith which inhibits revision and discourages examination and objective prediction. It also means the adoption of programmes before they are designed.

² One way of meeting manpower shortages is to undertake only what cannot be neglected and what can successfully be achieved.

³ We have emphasized the need for timeliness, however, and 'better planning' which takes longer may, for this reason, be worse. What is required is effective decision making and this does not always, if ever, depend on precise time-consuming evaluation.

⁴ Somewhat away from my main theme but a prize example of lack of policy co-ordination I would quote one example known to me where failure of a marketing board, government tax authorities, and co-operative bodies to consult together—or at all with the Ministry of Agriculture—over the fixing of prices, crop cesses, and other deductions, led to the announcement of a *negative* price to growers of a particular crop.

be meaningful only in relation to initial detailed programmes which set out target dates for various stages in project development.

Budgeting, in particular, becomes an impossible exercise unless planned expenditures are realistically phased. Over-optimism with regard to initial rates of spending can induce a false sense of the seriousness of the financial situation and lead either to cutting back or to the imposition of higher tax burdens than are necessary.

Where planned priorities cannot in practice be pursued, new guidance is necessary to assert fresh priorities. Provision for plan revision must be built into organizational procedures.

But even the best-laid plans may fail to be implemented. Given that sound and detailed initial plans are available, and given the staff to carry them out, a major problem of implementation is feedback and control.

Feedback of information may be inadequate, false, or too late to be useful. It may be inadequate because of the low competence of the man on the ground or false because of his interest in hiding the truth. It may be delayed because of the pressure of other work or the low priority assigned to reporting back. It may also not be clearly understood that a critical, realistic appraisal of progress is what is truly required. Indeed, often it is not. This is a fundamental problem for it means that senior staff are not fully committed to the success of the programme but rather are deflected by other considerations such as 'seeking to please the boss'.¹ These problems must be tackled from the top by precept and by the explicit encouragement of critical realism; by review of training programmes and the concept of roles that they generate;² and, finally, by augmenting the provision for feedback by arrangements for effective inspection and *ex post* evaluation.³ Such feedback is necessary, not only for improved implementation but for improved planning also.⁴

Effective implementation frequently demands that a large element of discretion be given to the field officer. Accounting procedures can severely hamper both the conferring and the acceptance of such discretion. If this is so, the case for their revision may need to be pressed. Where reference must be made to higher authority simple inefficiency with paperwork may

¹ See H. S. Mann, *Proceedings of the International Conference of Agricultural Economists, 11th Conference 1963* (London, O.U.P.), p. 463.

² C. C. Taylor *et al.*, *India's Roots of Democracy: a Sociological Analysis of Rural India's Experience in Planned Development since Independence* (Calcutta: Orient Longmans Ltd., 1965), quoted in part in vol. ii. Selected Readings to accompany *Getting Agriculture Moving* (Mosher, op. cit.), ed. Raymond E. Borton.

³ Effective *ex post* evaluation is not a question of comparing achievements with targets. It involves comparing what was done with what could have been done. It also involves appraisal of the reasons for limited success and the scope for improving the approach.

⁴ The concept of 'visiting agent' as practised on colonial tea estates is out of fashion but it was a formula that achieved effective feedback and control without unduly inhibiting the initiative of the local manager. By this formula, too, the concept of accountability rather than 'control through the accounts' was often made to work extremely well.

lead to critical delays and inadequate co-ordination. These may also arise through insufficient delegation of authority or because of a reluctance to accept responsibility. Training programmes and organization and methods reports may be of some help here, but where attitudes are at fault the problem may be too deeply seated for these approaches to offer much scope for improvement.

An understanding of the root causes of defective attitudes and the ways in which they lead to inefficiency is necessary and studies in this field should be encouraged.¹ Even so, some of the problems are obvious or have already been identified and can be tackled immediately. Recruitment, training, pay scales, career grades, and conditions of service (especially for field officers) relative to other occupations may all be accountable for the creation of ill-qualified, low-calibre, and poorly motivated administrative and extension organizations. Such a situation is self-sustaining and drastic revisions of status, pay, and training, may be required to break the vicious circle.

Extension services have particular problems of efficiency and warrant a paper to themselves. Inherent is the problem of transport. Once in the field there are severe and specialist problems of who to communicate with and how best to do it. There is the perennial dilemma of how far it is possible to offer 'average advice for the average farmer' and how far it is essential to create a service capable of tailoring advice to particular needs. The shortage of tailors usually solves this problem in the short run. In the long run it need not.²

Effective extension programmes making the best use of partly qualified staff imply a strong emphasis on group contacts; clear-cut, simple, limited, and relevant objectives; special short course training for field-workers for each programme; fully worked out routines and ample provision of necessary extension materials and required farm inputs. By contrast, the scattering of poorly qualified and insufficiently directed field-workers in remote villages is likely to yield very low returns.

However, the basic requirement of extension effectiveness is having something to offer.³ In this respect the need for special diagnostic units in generating and appraising relevant and productive extension programmes cannot be over-emphasized. Neither can the fact that diagnostic analysis is a completely different operation from farm costing studies—interminably perpetrated, seriously misused, and sadly identified as farm economics.

I hope I shall be excused for having chosen to emphasize to this Conference that among the most fundamental weaknesses of agricultural administration and extension is the failure to incorporate relevant economic analysis at the critical stages of policy-making and implementation. In

¹ Taylor, op. cit.

² W. David Hopper, *The Mainsprings of Agricultural Growth*. The Dr. Rajendra Prasad Memorial Lecture to the 18th Conference of the Indian Society of Agricultural Statistics, 1965 (mimeo).

³ In this connection I have said too little about the organization of research. On this see especially Weitz, op. cit. It is a useful general reference in this field—and David Hopper, op. cit.

improving agricultural administration there is the most urgent need to increase the supply of highly skilled analysts and generate a demand for their services by the quality and demonstrable significance of their product—especially, a true understanding of what makes a farmer tick. In addition, there is still much to be studied which is the province of sociologists, political scientists, and experts in public administration whose interests we should seek to mobilize.

GROUP Q. REPORT

FOR the most part there was a general agreement with the opening paper and discussion was directed to broadening the subject under consideration.

There was a feeling that the author was rather optimistic about the results obtained by planning and the importance was stressed of adequate feedback of information. Plans need to be flexible, too, and the private sector should be brought into the planning process. The information provided to farmers was often related to results obtained in Experiment Stations; it differed from the practical results that farmers will get in practice, and hence caused disappointment. Further, in agriculture the difficult task is not only to produce but also to market the output.

Some clarification of the proposed use of group methods was sought, especially whether or not they should be carried out by professionals not fully skilled as the paper seemed to indicate. Professor Joy explained that semi-specialized personnel were in mind with direct supervision by senior specialists.

The needs of qualified people in administrative positions suggested that this matter should be considered during the training of M.S. and Ph.D. students, by providing courses in Public Administration.

Some speakers saw ambiguities in the paper, such as the 'urban bias' which was mentioned as typically found in agricultural administrators and questioned whether or not farmers really saw advantages in the services provided by extension workers. The question of payment for extension services attracted attention. In developing countries it might be best for the taxpayer to pay for these services, but in developed countries, where extension work may help to increase undesirable surplus of food products, this may not hold true. The type of services that should be rendered was also debatable. Should the extension agent only educate the young producers, leaving to them to make the adjustments, or should they give the complete package of information to older farmers too?

Some saw two basic objectives in agricultural planning, namely to increase farm incomes, and to relate the pattern of farm output to the pattern for farm products, but there is a crucial difficulty for agricultural policy in the reconciliation of these two aims.

In low-income farming areas, where the proportion of the active population in farming is high, not only is there excess labour relative to land but farm size is often quite small, soil conditions are poor, farms are fragmented, and there are little or no off-farm employment opportunities.

Two approaches towards solving this problem were seen—a short-term one aiming at raising agricultural incomes and a long-term one aimed at regional development providing for the development of agricultural and non-agricultural activities simultaneously.

In so far as agricultural development is concerned there is a need for a co-ordination of activities between the responsible ministries at national level. In planning at government level little attention tends to be given to what the farmer can do. The technical, social, and economic problems at the community level must be identified. At the same time there is need for greater contact to co-ordinate effort between extension people and those officers who administer programmes at local level. Local realism in extension work was achieved in Italy through the initiative of farmers who felt the need for technical instruction, being sponsored by the Government afterwards.

In so far as non-farm activities are concerned, the work of all ministries and agencies responsible for general economic development must be co-ordinated both at the national and local levels. But this is easier said than done. Agricultural development involves the removal of surplus labour to non-farm activities. This pre-supposes that the rate of exit of this surplus labour from agriculture is matched by the rate at which new non-farm employment opportunities are created. But this does not always happen, and the best-laid plans break down as a result.

Moreover labour was seen as quite a 'sticky' resource, in many cases, even when employment opportunities are available, labour will still remain in farming and take a smaller financial reward for doing so. That is why one can see poverty in the midst of plenty even in much well-developed country as the U.S.

These factors tend to support Professor Joy's emphasis on the need for the planners to be fully aware of the constraints at farm level. Perhaps one slight criticism felt of the paper was that it tends to over simplify the planning process. While all the stages which he has outlined are necessary it is difficult to get one stage to follow another in logical sequence precisely because of the structural problem at farm level—which has no easy short-term solution.

Among those who participated in the discussion in addition to the opening speaker were: D. H. Ruthenburg *Germany*, B. R. Davidson *Australia*, D. B. Williams *Australia*, T. H. Koh *Malaysia*, S. O. Berg *U.S.A.*, D. G. R. Belshaw *Uganda*, A. E. Engel *Australia*, J. G. Ryan *Australia*, J. J. Scully *Ireland*, L. E. Virone *Italy*, Sherman E. Johnson *U.S.A.*