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SUMMARIES OF GROUP DISCUSSION

SUBJECT I

FARMING SYSTEMS IN HILL AREAS

RAPPORTEUR: S. L. Shah*

The group discussion was organized around the major issues of identification and evaluation of appropriate farming systems, socio-economic and technological factors determining crop patterns, integration of agro-based forestry, animal husbandry, crop husbandry activities incorporating ecological considerations and short-term and long-term policy measures needed to achieve the goals of scientific resource use planning and management. As a result of the deliberations, the following major recommendations were made:

The objectives of an appropriate farming system in the hills should be to promote scientific resource use planning and management for increasing income, employment and quality of life without disturbing the ecology. For this, micro level planning may be necessary and a watershed or catchment may be the appropriate unit of resource use planning rather than a development block as at present.

The cropping patterns in the hills have not changed significantly over time and the new technology of agricultural production has not made much of a dent. The hills enjoy a comparative advantage in the production of plantation crops, off-season vegetables and flowers and fruits. But due to various technical, economic, institutional and social constraints the potential has not yet been realized. There are quite a few research stations for agricultural development in the hills and new technology is available for developing new hill farming systems but very little of it has gone to the field. It was felt that the problems of the degeneration of hill ecology and environment posed serious threats not only to the hill people but to the people in the plains also and it was an imperative to develop and extend new hill farming systems on scientific lines. Optimal farming systems for the hills would include combinations of different farming activities like cultivation of field and plantation crops, animal husbandry, fisheries, sericulture, forestry, medicinal herbs, spices, fodder grasses, etc., determined according to soil capability and potentiality of the area and justified in terms of economic viability and social acceptability. The optimal enterprise mix would differ from region to region as the problems in the North-Eastern region where jhuming (shifting cultivation) is prevalent are quite different from those in other hill regions in the country where settled agriculture is by and large practised. It is recommended that jhuming, a highly wasteful system of farming, must be replaced by settled agriculture in the long run. But an interim solution to the problem must also be found in the short run. The solution may be in tune with the socio-religious fabric

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of the jhumias. It was thought that within the framework of the existing community ownership of land, it would be possible for individuals to obtain land for cultivation. With the involvement of the village council and leaders it may be possible to allocate land individually and to replace jhuming by terracing the land and by using new technology and inputs to improve and maintain the productivity of the land. The village community also needs to be educated and motivated not to extend agriculture to steep slopes. The educational process is preferred to coercive or mandatory measures. Food subsidy as a tool to motivate the jhumias to take to settled agriculture could also be used judiciously. Agriculture needs to be diversified with supplementary and complementary enterprises.

It is also recommended that jhum lands which are terraced and prepared for settled agriculture should incorporate water harvesting techniques so that the new technology of agricultural production may be adopted. Otherwise there is a danger of the farmers reverting to jhuming.

It is also recommended that agro-forestry based industries should be established after careful feasibility studies wherever possible. These would provide alternative employment opportunities.

To develop the optimal farming system, infrastructural development, new organizations and institutions may be needed which are spelt out below:

1. The extension programmes are weak and there is a need to develop a cadre of well-trained persons on hill farming systems. There should be a cadre of women extension workers also as most of the agricultural operations in the hills are done by women. Training programmes for tribal leaders and jhumias on scientific land use planning and management need to be organized.

2. New organizations like the tribal development agency, plantation corporation, etc., should enable the jhumias to make capital investments on land, to be eligible for production credit which they are not able to get at present because of lack of ownership in land.

3. The infrastructural bottlenecks need to be removed. Marketing and storage are the biggest bottlenecks in hill farming as farmers do not get adequate returns on their investments. It was suggested by some participants that to remove the infrastructural bottlenecks, agricultural development corporations might be set up in hill farming areas.

4. Multi-disciplinary research involving teams of rural sociologists, agricultural economists, agronomists, agricultural engineers, soil scientists, horticulturists, forestry specialists, ecologists and plantation crop experts are needed to study the problems of hill farming and to provide feed-back to the hill research stations on the type of research that needs to be undertaken.

SUBJECT II

RURAL CREDIT : STRUCTURE AND FLOWS

RAPPORTEUR: N. K. Thingalaya*

The Group discussed the various aspects of rural credit, analysing the structural changes in the demand for credit and the variations in the supply of credit. The inter-regional variations in the demand for credit were discussed in greater detail. It was agreed that the regional disparities in the demand for credit have been very conspicuous, specially in the case of the backward regions. The economic factors alone cannot explain fully the reasons for these disparities. The socio-economic factors also may be responsible for this phenomenon. The lack of extension services was also one of the factors contributing to this regional disparities. There was some inconclusive discussion on the credit absorption capacity. No attempt was made to provide any methodological framework for measuring the absorption capacity.

The pattern of demand for credit has been undergoing major changes in recent years. There has been a shift from the demand for unproductive consumption credit to the demand for investment credit. The consumption credit did not form a sizeable portion of the rural credit. The adoption of new technology in agriculture would also influence the demand pattern substantially. With the advent of the high-yielding varieties, the demand for credit for fertilizers, seeds, pesticides and also for pumpsets has been increasing. Thus the credit demanded from both the co-operative and commercial banks would reveal the changing pattern.

The Group discussed very briefly the demand projection for credit attempted in some of the papers. Some demand estimations have been made about the credit requirements by various committees in the past. The latest entrants into this field are the commercial banks which attempt to present estimates of the credit requirements in their lead districts. These exercises would serve an useful purpose in indicating the probable magnitude of the credit demand to be met at a future date. The methodology adopted in many cases would need careful scrutiny.

It was suggested that both the demand for production credit and the long-term credit had a direct relationship with the size of holding. In the case of the small land holdings, the demand for investment on land development was very much restricted. This observation was based on some of the empirical studies made in some parts of the country.

Apart from the credit needs of the agricultural sector, the demand for credit also emanated from the non-farming sector of the rural economy. This has been a neglected aspect of the rural economy. Its credit requirements were low, but the credit availability was very meagre. Though this

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point was accepted, there was little discussion on this aspect. A plea was made that the co-operative sector may assess the credit requirements of the village artisans and those engaged in some gainful economic activities in the rural areas and take steps to extend the credit facilities to these persons.

The Group discussed in detail the regional disparities in the availability of institutional credit. The results of a number of studies showed that the institutional credit was concentrated in a few economically prosperous States. Both the co-operative and commercial bank credit appeared to be flowing into these regions. It was stressed that the skewness in the distribution of credit should be corrected through concerted efforts. The factors influencing the regional inequalities in the credit availability were discussed at length. The lack of infrastructure facilities in some of the States was one of the major factors responsible for the lower volume of credit made available. The lack of integration of the functioning of various agencies was another factor which hindered the flow of credit. The lending schemes formulated by the credit agencies were not, in many cases, properly formulated taking into account the local conditions, which resulted in the credit schemes remaining on paper without benefiting the local farmers. An observation was made by some of the participants that the cost of credit had become exorbitant considering the man-days lost in getting the loan sanctioned, as the borrower had to run from pillar to post for this purpose. Added to this was the bitter truth that he had to pay off at many points, which made the credit still costlier.

There has been in recent years a proliferation of the credit agencies which are expected to cater to the rural needs. The Group discussed the desirability or otherwise of having multiple agencies in the rural credit scene. A strong plea was made for imposing a moratorium on the creation of additional credit agencies at the national and village level. It was argued that the farmer must be enabled to get all his requirements from one single source, as against the present practice of asking him to run from one agency to another for different purposes. With this idea in view the National Commission on Agriculture had recommended the establishment of the Farmers' Service Society (FSS). The FSS being a multi-purpose co-operative society is expected to provide a complete package of credit and marketing services to the farmers. A number of FSSs have been in operation in different parts of the country. However, the results achieved so far were not uniform. Some of them have indeed shown remarkable performance. The FSSs would have to be given a fair trial to justify their utility to the rural economy.

The regional rural banks have been established in recent years with a view to extending credit facility to the rural areas at a cheaper cost. In spite of the goading of commercial banks, they had not made a tangible impact on rural credit availability. It was argued that because of their huge cost structure, the commercial banks would not appear to be suitable agencies for serving the rural economy. The regional rural banks do have an advantage over the commercial banks in extending credit at a lower cost. These banks have been in operation for only a couple of years now and hence an

evaluation of their performance cannot be made at this stage. However, there are reasons to believe that they may become viable units by expanding their business turnover. It was underscored that they were not expected to replace the co-operative credit societies nor were they expected to compete with them. It was emphasized that to avoid overlapping of functions, whatever the co-operative could do better, other agencies would not be asked to enter the field. Besides the low cost banking, informality in the procedural aspects is of crucial importance in the stepping up of rural credit. It was pointed out that efforts were being made to simplify the procedural formalities by the banks.

Financial institutions do have an onerous task to perform in providing the credit necessary for rural development. The organizational set up has to be geared up for this purpose. It was also considered necessary to ensure that the credit borrowed was utilized for the purpose for which it was borrowed. The supervised credit which the commercial banks operated, to be effective, would require the services of technical personnel. The provision of extension service was considered important in ensuring the productive investment of the credit borrowed.

The mounting overdues of the co-operative as well as the commercial banks have caused great concern. To make any scheme of lending viable, the return flow of the funds borrowed has to be ensured. The discussion of the default ratio centred around the segregation of wilful defaulters from those in whose case the repayment cannot be made due to factors beyond their control. A plea was made for taking effective steps promptly to recover the overdue loans from the former category.

Investment in the agricultural sector through the borrowed funds generated additional income in the hands of the borrowers. But only a small fraction of this incremental income found its way back into the organized financial agencies as savings. This was partly on account of the higher marginal propensity to consume and partly due to the lack of interest shown by the financial institutions in inculcating the saving habits among the borrowers. This aspect assumed importance both in augmenting the resources of the lending agencies and also in making the farmers self-reliant in the long run.

While discussing the role played by various credit agencies, it was pointed out that there was a need for evolving a national credit policy assigning specific roles to the large number of credit agencies functioning at present. Some of the credit agencies had come into being largely on an *ad hoc* basis. It was considered necessary to formulate a national credit policy which would be conducive to the promotion of integrated rural development.

SUBJECT III

IDENTIFICATION, APPRAISAL AND EVALUATION OF AGRICULTUTAL PROJECTS

RAPPORTEUR: A. Vaidyanathan*

The papers as well as the discussion generally recognized (with some dissenting opinion) that agricultural projects (including animal husbandry, forestry and fisheries) have a number of special characteristics which distinguish them from projects in other sectors. These include the greater degree of uncertainty in the time profiles of cost-benefit streams arising in part from the very long gestation period of certain categories of projects and, more importantly, from the fact that the impact of particular projects in terms of the ultimate increase in physical output and its distribution are largely determined by activities outside the scope of the project, the manner in which they are managed and co-ordinated, as well as on the responses of large number of farmers who are autonomous decision-makers. Some participants contended that these were by no means peculiar to agricultural projects. There was much discussion on whether these special characteristics warranted any significant modification in the standard project evaluation techniques. Again, while some did not see any warrant for departing from the standard techniques, the general view was that even those elements (like employment, distribution and uncertainty), which would in principle be accommodated within the framework of the standard techniques, were not in practice usually taken into account. Moreover, the determinants of ultimate social benefits and associated costs are particularly complex in the case of agricultural projects and this would make a confident assessment of benefit-cost streams inherently difficult. The difficulty would remain even if all the public sector activities which determined the outcome of a particular project were taken as an integrated whole, because we simply do not know how exactly different elements of a public programme for agriculture would determine output and its distribution.

The discussion highlighted several inadequacies in the existing system of project formulation and appraisal: the lack, or unreliable nature, of the basic techno-economic information relating to projects, the absence of expert technical organizations to formulate projects based on proper surveys and systematic evaluation of alternative designs, excessive pre-occupation with the niceties of techniques rather than on the problems of applying them to concrete projects, and the limited role played by agricultural economists in influencing the process were stressed.

It was pointed out that evaluation of the alternatives would have to take place at several different levels; while a great deal more attention should be given to explicitly articulating and evaluating alternative designs for a particular project, it was also necessary to work out sectoral/regional perspectives to assess their resource potentials and alternative strategies for exploiting them

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in pursuit of specified social objectives, in order to guide the identification and formulation of individual projects.

The role of formal methods and sophisticated analytical techniques evoked intense discussion. While everyone recognized their importance as tools for evaluation of projects and programmes whose component elements were marked by complex inter-connections, there was also a strong view, again with some participants vigorously dissenting, that these techniques should be instruments for better analysis and not an end in themselves. Unfortunately, the serious deficiencies in the project data to which these techniques were applied were not always fully appreciated. The data given by the project formulators were accepted uncritically. Sometimes the methods have tended to oversimplify crucial aspects thereby leading to distorted conclusions. These considerations would underline the importance, at the present stage, of giving greater attention to critical scrutiny of the basic data and to find out the reasons for lacunae which exist in this respect.

In this context it was pointed out that appropriate machinery to collect the relevant data for project formulation needs to be set up. While available data were often inadequate, it was felt that there was room for more effective use of the information but for the poor communication between the concerned departments and agencies of government. There was also a major problem of reliability which was compounded by many conscious or unconscious biases in the estimates of technical and economic parameters, often reflecting pressures for speedy clearance of projects. The institutional arrangements for project evaluation did not provide effective checks on such biases. The question of how much information was needed was also discussed: Since information gathering was costly and time consuming, it was considered necessary to be selective. The concern should be not so much on getting detailed and correct data on all aspects of the project but, rather, on getting better and more reliable information on those dimensions the values of which make a significant difference to the viability of the project.

The techniques of appraisal as well as the information demanded should also keep in view the nature of the project as well as the level at which decisions are made. For large technically complex projects (like major irrigation systems or area-wide groundwater development programme) sophisticated appraisal procedures would be necessary and appropriate. But for project selection at the level of panchayats or blocks such sophistication was not likely to be useful. What was needed here were simple selection rules and it would be probably more useful to concentrate on improving the arrangements for identification and preparation of the projects. However, some participants felt that we should not make a fetish of ruling out sophisticated analytical methods even at the block or district level.

As for the role of agricultural economists, there was a general feeling that they should play a much more important role in the evaluation and appraisal of projects and that they should be brought into the picture at the earliest stages of the cycle. However, it was stressed that agricultural economists cannot be effective unless they learnt enough about the physical and technical

features of the projects. Without this knowledge, economists' opinions are likely to be dismissed by the technical experts as being ill-informed or, alternatively, the economists would fall into uncritical acceptance of the technical experts' judgement. Furthermore, it is necessary to recognize that in many types of agricultural projects the relevant knowledge about how various institution-building programmes of the government would influence output and productivity growth cannot be gained without co-operative work with other disciplines like sociologists and management experts.

The problem presented by externalities was discussed at some length. While recognizing that, in several cases, this problem could be taken care of by enlarging the scope of the project to cover correlated activities as well as ramifications of the project on other sectors, it was stressed that in the present state of knowledge this was not always practicable. In any case, it needs to be recognized that when a particular agricultural project has adverse consequences for activities of other groups of population who do not benefit from it, there is a problem of evaluating the conflicting claims of the different groups which involve fundamentally political questions beyond the competence of the project evaluator to decide.

The Group strongly endorsed the importance of institutionalising *ex post* evaluation studies by organizing them on a systematic and continuing basis. A critical and objective evaluation of the projects/programmes is the only way to learn from experience. It was noted that this aspect did not receive adequate emphasis; the results of such *ex post* evaluation as were being done were not followed up, thereby rendering these evaluations a useless exercise. This situation has arisen partly because of the natural tendency of executive agencies to take defensive attitude about their performance. However, it was also recognized that a better response could be forthcoming if there was a credible assurance that the evaluation was meant not to assign blame, but as a means to improve performance. Some participants also stressed the need to give greater attention to monitoring of projects/programmes in the course of their implementation so that modifications could be made rationally even in the early stages. The desirability of agricultural economists taking a more active interest in such studies was stressed. It was, however, pointed out that if the exercises were to be useful they should go beyond mere cost-benefit analyses to critical and institutional aspects. For this, greater inter-disciplinary collaboration would be essential.