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INDIAN SOCIETY OF
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ANNOUNCEMENT

SUBJECTS SELECTED FOR THE NEXT (38TH) ANNUAL CONFERENCE OF THE SOCIETY

The 38th Annual Conference of the Society will be held under the auspices of the Assam Agricultural University, Jorhat-4 (Assam) from 18th to 20th January 1979. The following subjects have been selected for discussion at the Conference.

1. Farming Systems in Hill Areas.
2. Rural Credit: Structure and Flows.
3. Identification, Appraisal and Evaluation of Agricultural Projects.

The synopses of these subjects are given below. Papers (in triplicate along with Summaries) for discussion at the Conference should reach the Society's office not later than 15th September 1978.

SYNOPSIS

Subject I

FARMING SYSTEMS IN HILL AREAS

Topographically the hills form a system of ridges and valleys. The farming system in the valleys with assured irrigation varies from that in the ridges and upland terraces which mainly depend on rainfall. There is substantial diversity in the micro environment over relatively short distances because of variation in elevation, temperature, rainfall, length of frost-free period, etc. This makes the task of developing appropriate technology for the hill region very difficult.

The traditional hill farming system is identified with a slash and burn system of shifting cultivation which is still in existence in some places like north-eastern Himalayas. Due to population explosion and increased demand for food, new technology has been developed for the perennially irrigated valleys. A technological change in the hills envisages optimum utilization of catchment precipitation, cropping pattern according to land capability and proper soil and water management practices. A catchment or watershed has been found to be the most appropriate unit for integrated resource use planning in the hills. A hill watershed is characterized by a high degree of interdependence and interaction among natural and human resources, which necessitates a systems approach to resource use planning and management. In such a system technological innovations and management decisions give rise to both positive and negative externalities.

The papers should focus discussion on the following aspects:

1. An economic analysis of shifting cultivation or *jhuming* bringing out how this practice affects stability of agricultural production and productive capacity of the land.

2. Changes in the cropping pattern over time and factors affecting them. The impact of technology and socio-economic factors on cropping pattern and changes in it over time may be highlighted. An economic analysis may be attempted of watershed-based farming system involving optimum utilization of catchment precipitation through soil and crop management, through run-off collection and storage and through recovery from wells of the percolated water.

3. Identification of optimal farming systems from the viewpoint of land capability and needs of the hill people while maintaining the quality of the environment. In view of the increased awareness of the need for improving quality of environment in the hill areas, an attempt may be made to examine environmental and ecological consequences of adoption of optimal farming systems.

4. Integration of crop husbandry, animal husbandry and forestry in the hill farming system. To maintain the eco-system forests are very important in the hill farming system. Indiscriminate grazing, felling and extension of agriculture has brought about the destruction of forests. Studies having a bearing on the scientific and industrial ratio between land, water, plant and animals and forest management plans with linkages with agriculture may be highlighted. The hill farmer keeps a proportionately larger number of cattle; as such the scope for dairy and other animal husbandry enterprises and integration of appropriate crop, animal husbandry and forestry technology may be discussed.

5. Risk and uncertainty in the hill farming system and ways and means of minimizing their impact on farm production and income. Agriculture in the hills being mainly rainfed and horticultural activities being exposed to natural hazards as hail storm, frost, etc., risk and uncertainty play an important role in the hill farming system. Some quantification of the risk inherent in the traditional and new farming system may be attempted. There are various formal and informal means of minimizing the impact of risk and uncertainty on farm production and income which could be attempted in the hills. Among the informal means, mixed cropping and mixed farming are important and are being used by the hill farmers. Their impact on the mean income and variance of income over time may be analysed. Among the formal means crop insurance, livestock insurance, development of institutional arrangements of credit and marketing infrastructure including roads, godowns, etc., are important. The economic feasibility of some of these formal means in hill conditions may be examined.

6. Economic and technological factors affecting the adoption of new farming system. The technical feasibility and economic viability of technological change in the hill farming system may be discussed.

7. An evaluation of the technology developed in the research centres established during the Fourth and Fifth Five-Year Plans in Nagaland, Manipur, Tripura, Mizoram, Himachal Pradesh and Uttar Pradesh for hill agriculture may be made and its impact in the farming system in the region of their location may be brought out.

8. An evaluation of the Indo-German Agricultural Development Project in Himachal Pradesh and Uttar Pradesh hills and of the Hill Agricultural Development Project in Uttar Pradesh may be made and the replicability of these pilot projects in other hill areas may be brought out.

9. An analysis of externalities in the hill farming system. The trade-off between private benefit and social cost or social benefit and private cost arising out of externalities needs to be examined. Appropriate institutional structures, *e.g.*, group action and decisions for managing land and water resources, community pastures based on field data may be evaluated.

10. Strategies and tools of public policy to motivate the farmers to adopt new farming systems and maintain the ecological balance. In this context, the relative effectiveness of various policy instruments such as education of resource owners, subsidies, taxes, institutional credit, mandatory resource use regulations, etc., could be examined using appropriate field data.

Subject II

RURAL CREDIT: STRUCTURE AND FLOWS

A qualitative analysis of the structure and flow of rural credit would be of considerable interest in the present context where a number of credit agencies are set up purporting to serve the rural economy. The various issues relating to rural credit may be examined more usefully from the empirical or operational angle. What should be the tenets of a national credit policy conducive to the promotion of integrated rural development? How the flow of rural credit could be augmented without starving the other segments of the economy? Whether the multiplicity of agencies, some of which are set up on *ad hoc* basis is a desirable pattern of credit disbursement or an integrated credit agency is preferable? These are some of the basic issues on which studies could be made. Rural credit, by definition, would include also the non-agricultural credit in the rural areas, an area which is normally lost sight of due to the exclusive emphasis on agricultural credit. The availability of non-agricultural rural credit is very negligible, so also are the attempts made to analyse this issue.

The subject could be broadly classified into two segments based on the demand and supply sides of rural credit, *viz.*, (1) the structural changes in the demand pattern for credit and (2) quantitative growth in the flow of credit.

1. *Structural Changes*

An examination of the structure of rural credit could be made without necessarily going back to the findings of the Rural Credit Survey and other reports. It would be better to confine to a decade in the past and to project into a decade in future. Has there been a remarkable change in the demand pattern of rural credit from the borrowings for land purchases after the land reforms to the borrowings for input purchases? With the advent of high-yielding varieties and the use of chemical fertilizers there could be a shift in the demand schedule to the right, presumably the farmer being prepared to borrow larger volume of credit at even higher rate of interest from all agencies including the indomitable moneylender. While some fragmentary data are available indicating the 'debt burden', there is a dearth of data segregating the debt burden into unproductive debt and productive borrowings. But the inferential evidences seem to suggest an increase in the productive investment in the rural economy.

Estimating the demand for credit for increasing the yields of the selected major crops could be an area in which methodological and empirical work could be undertaken. With a time horizon of about ten years, the demand for agricultural credit could be assessed using econometric models.

As a result of the growing interaction between the rural and urban areas through better communication and other facilities, the non-agricultural segment of the rural economy is also activated. The credit needs of the village artisans, and cottage industries would show signs of rising. An assessment of this increase would be useful.

2. *Flow of Credit*

Some macro estimates regarding the credit gaps in the rural economy are available for various points of time. It could, therefore, be examined as to whether there has been any augmentation of the flow of rural credit to an appreciable extent with the increase in the credit agencies operating in the rural areas. This has to be examined taking into consideration the inflationary trends, the increase in the input prices and also the increase in the demand for credit for capital investment. The desirability of the multiple agencies operating in the rural areas can also be examined with specific reference to the benefits accruing to the rural community through (1) availability of cheaper credit, (2) the adequacy of credit, (3) the productivity-orientation of credit and (4) the other technical guidance provided by the institutional agencies. Though admittedly institutional credit is cheaper than non-institutional credit, the tendency, of late, has been to increase the rate of interest as the institutional agencies find it difficult to maintain their own viability at lower rates. The creation of more agencies has also brought in its trail perhaps the problem of multiple financing leading to litigation. Thirdly, the regional disparities in the availability of credit could be examined as there is a tendency for the concentration of rural credit in the agriculturally prosperous States.

After bank nationalisation there has been a rapid extension of their branch network into the rural areas. A critical appraisal of the nature of flow of the bank credit into the rural economy may be examined with respect to the purposewise credit utilization. Incidentally, it could also be examined as to whether the entry of the commercial banks into the rural areas has resulted in an outflow of the rural savings, as is often pointed out. Any study of the flow of rural credit would not be complete unless a review of the surplus generated through the credit utilization as well as the delinquency on the part of the rural borrowers are examined. The bane of co-operative credit has been the high default ratio and the scant attention paid to inculcate frugal habits. Now with the change in the structure and flow of rural credit, it is worthwhile to examine as to whether there is any improvement in the return flow of the additional income generated in the rural economy to the organized financial sector.

Subject III

IDENTIFICATION, APPRAISAL AND EVALUATION OF AGRICULTURAL PROJECTS

The purpose of this session is not to discuss techniques and methodological problems involved in identification, appraisal and evaluation of projects in general. The primary aim is to focus on the problems involved in the application of general principles to project planning in the agricultural sector. Participants who intend to present papers on the subject are therefore requested to focus their contributions on the following broad themes:

1. *The Special Characteristics Which Distinguish Agricultural Development Projects from Projects in Other Sectors*

For example, 'externalities' are believed to have a considerably more important role in irrigation, land development, other agricultural projects than in industrial projects; similarly, the design of agricultural project could have a more significant and direct bearing on income distribution by virtue of the fact that the beneficiaries are numerous and cover groups of very different socio-economic status. Papers on this theme should highlight such special characteristics with the help of concrete examples.

2. *A Critical Review of the Process of Formulation and Appraisal of Agricultural Projects*

Papers could deal with (a) the institutional arrangement and processes involved in formulation and appraisal of projects relating to agricultural (and allied) activities with special reference to the role and functioning of technical organization; the extent to which the various inter-disciplinary and institutional linkages between different elements of agricultural development programmes are taken into account at the stage of project formulation, as well as in appraisal. (b) The extent to which the agencies charged with identification and formulation of projects have the benefit of broader secto-

rol/regional studies defining technological potential, the specific mix of measures needed to stimulate production and of priority as between regions and classes of farmers. How are these sectoral/regional perspectives prepared, what are their qualities and how far do they really guide project formulation work at the local level. (c) Another important set of problems relate to the information required for proper preparation of a project proposal and the evaluation of its benefits; problems (institutional or otherwise) which help or impede an integrated view of different elements of the development projects both at the formulation and at the implementation stages. And finally, (d) a critical review of the administrative procedures, the methodology and the criteria used in evaluating projects. Papers might address themselves to these problems both from the viewpoint of national or State Planning agencies and of particular major project.

3. Case Studies of Particular Agricultural Projects

It is intended that this group papers will form the core of the session. Papers might present results of application of the existing methodologies for project evaluation to specific agricultural projects of different types. However, it is desirable that they attempt to evaluate the adequacy of existing evaluation methods to deal with the problems peculiar to agricultural development projects. It would also be useful if the papers attempt a critical assessment of (a) the quality and reliability of techno-economic information, (b) the extent to which the fact that benefits flowing from a particular project (say irrigation or land development) is contingent on other programmes (such as extension, institutional reform, proper pricing policies) is recognized in the appraisal of project, (c) the importance of the risk element and the manner in which it is treated in project appraisal and (d) whether, to what extent and in what manner, distributional aspects are incorporated in the evaluation procedure.

4. Ex Post Evaluation of Project Performance

The role of *ex post* evaluation in progressively improving project planning and implementation as well as in building the data base for realistic assessment of various elements of cost and benefits; a review of the post-evaluation studies undertaken on major projects focusing on the extent of divergence between expected and actual magnitudes (as well time phasing) of cost and benefits and the reasons for the divergence. The extent to which the results of such studies have in fact been used to improve the quality of project formulation and appraisal. Suggestions on how the post-evaluation studies could be organized on a more systematic and continuing basis so that they are truly effective instruments for improving the quality of project formulation and implementation.