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SUMMARIES OF GROUP DISCUSSION

SUBJECT I

PROBLEMS OF DRY FARMING

RAPPORTEUR : I. J. SINGH*

The group started the discussion by allowing free scope to participants to range over the points touched within the framework of the Rapporteur's report. Most of these issues were in fact covered in the three sittings of the group.

It was, at the outset, emphasized that although the problems of low income and low resource productivity are characteristics of the dry farming areas they have become more apparent after the onset of the green revolution. In this context a reference was made to the experience of I.A.D.P. districts which, because of the assured irrigation facilities and relatively more progressive farming communities received more developmental assistance with the result the dry land areas lagged behind.

The group then discussed the nature and characteristics of the dry farming areas. For the purpose of discussion, the group accepted the Fourth Five-Year Plan (1969-1974) definition of dry farming areas. That is any area receiving less than 1,125 mm. (44.29 inches) annual rainfall is a dry farming area. A range of annual rainfall was specified to further classify different dry farming areas into three categories : (*i*) heavy rainfall area receiving annual rainfall between 1,017 to 1,124 mm. (40.39 to 44.25 inches); (*ii*) medium rainfall area having annual rainfall between 750 to 1,016 mm. (29.52 to 40 inches) and (*iii*) low rainfall area receiving an annual rainfall below 750 mm. (29.52 inches). In this regard, rain-fed, barani and dry areas were used synonymously. It is in these areas where there is neither dependable irrigation nor adequate rainfall and farming is characterised by low returns and instable crop yields. Also in these areas, the relative proportion of landless labour is high with the result that whenever crops fail due to drought, unemployment is considerably increased and farm incomes still further lowered. Regarding identification of the dry areas in the country, the group felt that it has to a large extent already been done in the Second Five-Year Plan by initiating a few dry farming projects, further extended in the Third and the Fourth Plans.

A good deal of the discussion centred on the question of what crops dry land farmers could look to for raising their incomes. Expectations of falling prices for wheat led most to conclude that dry land farmers should not in future find this profitable. The need was to look for new crops. Soybean and sunflower were discussed and, overall, the weight of the observations

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stressed the problem and limited scope for adoption of these crops. On the basis of empirical evidence, the group concluded that shallow rooted crops like wheat were not the crop of dry land areas. Instead, deep rooted crops like mustard were considered more paying crops of the dry farming areas. In this regard, mustard was discussed with enthusiasm and castor was noted as a crop which had transformed the farm economy in an area of Andhra Pradesh. However, there was no euphoria and in general there was a feeling that technical advance while notable had not yet reached a stage to give great hope for a major transformation of dry farming.

A good deal of the discussion centred on crop and farm level problems and problems of developing dry land area, infrastructure, extension, credit and marketing to promote farming in such areas. However, it was recognized that even if solutions were found to problems at these levels, and that increasingly farmers adopted new practices, there were other strategic dry land area problems that might be overlooked. Part of our time was, therefore, spent on discussing the nature of these strategic problems and the approaches necessary for tackling them.

It was argued that dry areas would generally be called on to absorb further population increases. The adequacy of available and envisaged technological and market developments to sustain income levels, leave alone to raise them to match advances in irrigated areas, was questioned and the need was seen to analyse prospects for population absorption and income levels in dry areas. Improved technology and new land use patterns would not necessarily have population absorbing effects. Development strategies needed to be developed for particular dry farming areas which took account of overall income and employment effects of population pressure and of technical change and which related farming policy with agro-industry and non-agricultural development policy. It was felt that while area planning had already been accepted as desirable in principle, it still remained to be demonstrated how such an approach should be made in relation to dry land farming. The agricultural economist has a responsibility to demonstrate a practical contribution to such an approach.

The short run prospects for dry farming areas were somewhat disputed. Some maintained that the current state of knowledge was already very encouraging but the lack of ability, thus far, to persuade farmers of the value of proposed innovations led others to doubt that the new possibilities were in fact sufficiently attractive even potentially to hope for their adoption on a wide scale. Inevitably, the discussion returned to the question of rainfall reliability and it was asserted that preliminary analysis relating to an area in Andhra Pradesh had suggested that in only one year in five would new technologies pay; in three out of five years traditional, extensive practices would be best; and that in one year in five there would be either total failure or even inability to sow at all. It was felt that such measures were worth

calculating even, perhaps, that without them one could not assess the economic viability of proposed new practices. In this respect there were questions both as to whether individual farmers should be encouraged to bear the risks of innovation and as to whether insurance schemes might be devised where long-term net benefits were to be expected.

Arising from this discussion it was further observed that the experiment station trial results needed to relate to 'poor' years as well as to 'good' years and that inter-plot yield variability experienced in each year was itself an important measure that should not be ignored when the average had been computed. The differences between trial results and farmers experience seemed striking and in need of investigation. The point was also strongly made that, however centralised was the direction of experimental programme, there was a need for local trial centres to establish the local suitability of varieties and of husbandry practices.

Credit was discussed and it was agreed that credit was necessary to support dry land farming developments. However, it was strongly argued that credit supply was not a constraint, the problem was rather farmers' disinclination to get into debt. In the light of the discussion on uncertainty there was some sympathy with the farmers and some implied questioning of the adequacy of the terms of credit availability in such situations. The possibility of crop insurance was discussed in this connection and it was felt worth adding to the list of topics which might be further researched.

Marketing was raised as a problem but it seemed so widely accepted that there was a need for reliable, stable, efficient market outlets and price levels high enough to induce innovation and investment that the matter did not generate a sustained discussion.

In the course of the general discussion and as a result of discussion specifically on the question, the following fields of research were considered as of importance in relation to dry land farming problems :

1. Analysis of Rainfall Reliability and Soil Moisture Pattern

The group felt that careful studies on the pattern of rainfall and soil moisture in each dry farming region earmarked in the Fourth Five-Year Plan need to be undertaken with a view to evolving profitable cropping patterns suitable for such regions. Since, in most of the dry farming areas, only one crop is taken, the group emphasized the need for developing such techniques which would facilitate cultivation of at least two short duration crops.

2. Economics of Soil and Moisture Conservation Measures

In different Five-Year Plans, soil and moisture conservation measure have been undertaken. The group felt that these measures are generally

of the long-run nature. It is necessary, therefore, to investigate per unit land area cost of such measures and the time period when such measures, particularly in dry farming regions would be self paking.

3. Economic Studies on Farming Systems in Dry Land Areas

Economics of farming systems such as crop farming, dairy farming, sheep or goat raising in the dry farming areas of the country need to be carefully studied. Such studies might provide useful economic information for regional specialisation and policy formulation.

4. Studies on Economics of Credit and Insurance Schemes in Dry Farming Areas

It was clearly brought out in the group discussion that availability of credit was not a constraint in the dry farming areas. At the same time the group also felt that a dry land farmer does not avail the credit facilities either because of his own disinclination or because of the institutional constraints. In this context, therefore, the group felt that the economics of credit facilities wherever availed by the dry land farmers and the reasons for not availing the credit facilities need to be investigated. Similarly, the need for conducting feasibility studies on the economics of crop and livestock insurance in the dry farming areas was emphasized by the discussion group.

5. Economic Aspects of Farm Mechanization in Dry Farming Areas

In the dry farming areas, especially, where heavy black soils are present, land preparation and weed control during the rainy season becomes difficult and often only one long duration crop is taken in the winter season. Thus, for land preparation and weed control, mechanical power may do the job efficiently. However, the group felt that a comparative economics of the farm operations which could be done both by tractors and by animal power or human labour needs to be carefully worked out for each dry farming zone.

6. National Development Strategy for the Dry Farming Areas

As a new package of dry farming technology, the Fourth Five-Year Plan (1969-1974) envisages, soil and water management, evolving new crop varieties and agronomic practices. In regard to soil management, deep ploughing has been advocated to produce a type of soil structure conducive to moisture preservation and root penetration. For increasing soil fertility in dry farming areas, deep placement of fertilizers and foliar feeding of nitrogen has been recommended. As a part of the package of dry farming technology, development of modern water harvesting procedures and the use of polyethylene films, aluminium foil and other methods for the widespread installation of small water reservoirs have been envisaged in the Fourth Plan. Some efforts have also been made in developing a few promising varieties of cereals, pulses, millets and oilseeds having better yield potential in dry areas. The progress in

developing suitable high yielding, short-duration varieties for fodder crops, perennial plants (date palm, oil palm, cashewnut and mango), has not been encouraging. The group felt that it would be worthwhile investigating the factors that have been responsible for the slow progress in developing, implementing and adopting the new package of dry farming technology in spite of the financial support from the Government.

Finally, a proposal for a seminar was put forward to bring together agronomists, statisticians, agricultural economists, engineers, plant breeders and soil scientists to discuss the nature of the existing evidence ont he basis of which new varieties and husbandry measures could be developed for promotion in the dry farming areas. This inter-disciplinary approach may ultimately form a basis for constituting a Dry Farming Development Corporation.

SUBJECT II

AGRICULTURAL PRICES : PROBLEMS AND POLICIES

RAPPORTEUR : JAI KRISHNA*

Pricing of Agriculture Produce

Following the suggestion given by the participants some variations were made in the plan of discussions. Instead of discussing pricing of inputs first, as suggested in the Rapporteur's report, it was decided to focus attention on problems of pricing of output in the beginning.

The question of the level of a fair price was discussed first. It was noted that while the simplest thing would be to leave the market mechanism to determine the level of prices, intervention by State agencies sometimes becomes inevitable with a view to safeguard the interests of the producers on the one hand and that of the consumers particularly of the vulnerable sections, on the other hand. But, at what price levels should this intervention take place and for what crops?

It was observed that one of the important considerations in determining the level of output prices should be some kind of parity with international prices, particularly for commodities which form the raw material for export oriented. While recognizing the need for keeping the internal price structure in agriculture in line with the international price pattern, it was generally agreed that there are obvious limitations in doing so. First, there is the question of the economic framework. Cost structure even in the industrial sector of the Indian economy is very much out of line as compared to the international setting. In particular, the price levels of agricultural inputs purchased

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from the non-farm sector are much higher compared to the international prices. Second, the practice of supporting domestic prices at levels higher than the export prices is widely followed even by many of the developed countries.

This then is the dilemma the policy makers face. On the one hand the need to keep prices of agricultural commodities such as raw jute, cotton and oilseeds at internationally competitive levels is obvious, if India is not to be outpriced from the export markets. On the other hand the limitations of price policy to achieve this objective are also very clear. The recent technological changes by tilting the balance against non-food crops, have indeed aggravated the situation. What then is the solution? Obviously the Indian economy cannot afford to bear the burden of subsidizing its principal agriculture-based exports. Perhaps it is time for us to consciously plan for the development of alternative export commodities. How far the substitutes can be found within the agricultural sector is a worthwhile topic for in-depth research. And what should be the criteria for ranking of products for export-worthiness? Similarly, it is worthwhile to analyse the economics of import substitution in the agricultural sector. At what price, for instance, should we strive to attain self sufficiency in oils and fats and cotton?

Another major consideration in determining the level of agricultural prices should be the objective the price policy is supposed to help attain. It was suggested that the objectives of price policy vary with the stage of agricultural development. In the initial stages, there is over-riding concern with attaining self sufficiency in food production. The price policy has, therefore, to be oriented towards providing adequate incentives for adoption of new technology and sometime even for shifting of resources in favour of food crops. But, as the economy moves to a stage of near self-sufficiency in food, the price policy instrument has to be increasingly used for generating a "balanced structure of production." In the third phase, the main concern of price policy becomes the transfer of surpluses from the agricultural sector to the non-agricultural sector.

While it was generally accepted that in the initial phase the price policy should lay emphasis on promoting the spread of new technology for increasing production of food crops, the relevance of maintaining a dual regime of procurement prices and support prices for food crops even in the "self-sufficiency" phase was questioned. If the objective of price policy is to help generate a "balanced structure of production," the State will have to think of extending the cover of support prices to all the crops in the "structure" and preferably to make the support prices statutory.

Output Prices, Technology and Resource Allocation in Agriculture

But, what is the nature of response of non-food crops to changes in the relative price structure in so far as resource allocation, productivity and

pattern of production are concerned? It was argued by some participants that even though support prices were being fixed for a number of crops other than wheat there is very little positive evidence to indicate improvement in production technology and hence in productivity of these crops.

In so far as the impact of changes in relative price structure on the pattern of resource allocation is concerned, while there is clear evidence that allocation of land among alternative crops is significantly influenced by changes in the relative price structure, empirical evidence relating to allocation of other inputs is lacking. It was the impression of some participants that manipulation of relative price structure for competing crops does not have a significant impact on allocation of inputs other than land.

While the basic cause of the lack of responsiveness of production of non-food crops to changes in relative price structure has to be sought in the realm of the nature of technology available for adoption by farmers, it was suggested that the instability—intra-seasonal and inter-seasonal—in prices of some of the non-food crops may also have something to do with the phenomenon. Further, it was observed that whereas the procurement prices for wheat, which have in reality become support prices, have been treated with a degree of sanctity, the price support operations for coarse grains and even for cotton and jute have been conducted on a half-hearted basis. Imperfections in the market mechanism and in some cases lack of ready markets have also hampered the responsiveness of farmers to price changes.

Another question that was raised in this context was the lack of availability of reliable demand forecasts and also the absence of reliable estimates of supply response coefficients for various crops. How could a rational price policy frame emerge when data gaps are so obvious, wondered the participants.

The question of relative role of price incentives and technological change in promoting growth in agriculture was discussed at considerable length. It was argued, and argued very forcefully, that by its very definition improved technology should be cost reducing. What then is the basis of demand for raising the prices of crops for which improved technology, and by definition cost reducing technology, is available to the farmers? Further, what evidence, if any, exists about the role of agricultural prices in inducing development of new production technology?

At this stage it was suggested that while discussing the development and application of improved technology in farming, it is fruitful to differentiate between the micro aspects and macro aspects. The micro aspects of technological development relate to such innovations as are amenable to adoption by individual farmers; the macro aspects relate to innovations which can be exploited only on an area basis and consequently require participation by

State agencies, *e.g.*, development of water resources and conservation techniques, new techniques for dry land farming, area plant production schemes, etc.

It was agreed that in so far as the development of new technology is concerned, output price may have only a marginal role to play in the Indian context. What is needed is a policy for research in agriculture which would integrate the research efforts with the overall economic and social objectives of growth in agriculture. The level of output price and more so the stability therein, however, do have a significant role to play not only in promoting adoption of new technology but also in its sustenance as has been clearly demonstrated in the case of wheat. But, what about those crops where new technology for adoption at the micro level has yet to be developed? As indicated earlier the general feeling was that price incentives may not take us very far. It was also felt that in some cases, particularly in the case of rain-fed crops, adoption of new technology at the micro level may not become an economically viable proposition unless preceded by technological breakthrough at the macro level. The emphasis in the initial phase should, therefore, be put on the development and adoption of technology at the macro level. The State will have to accept a leading role in promoting and financing such a development.

Another issue which was briefly discussed related to the efficiency of price policy in generating optimal land use patterns for various regions in the country, keeping in view the agronomic aspects of the comparative advantage of some regions in producing certain crops. The general view was that price policy instrument may not be a very efficient tool for attaining optimality in land-use pattern in the country as a whole, primarily due to the socio-political considerations. It was, however, felt that using fiscal incentives for promoting growth of processing industries in areas enjoying comparative advantage in producing certain crops may provide a partial answer.

Output Prices and Income Distribution

Though no paper was submitted for discussion on this topic, the ideas developed by Prof. Mellor in his paper on the role of prices, published[1] recently, formed the main theme of discussions. According to Prof. Mellor, a given percentage increase in output prices leads to widening of disparities among the various categories of farmers, even if there are no imperfections in the market; large farmers with more to sell in the market get a much larger absolute increase in incomes. On the other hand, an increase in agricultural prices, particularly food prices, tends to adversely hit the lower income groups in urban areas.

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1. John W. Mellor, "The Functions of Agricultural Prices in Economic Development," *Indian Journal of Agricultural Economics*, Vol. XXIII, No. 1, January-March, 1968, pp. 23-37.

Further, since in most cases the small farmer is both a seller and a buyer of food crops, he gets doubly hurt in a phase of rising prices. He is forced to dispose off his produce right after harvest when prices are generally depressed, but has to buy back foodgrains in the lean season when prices tend to rule very high. Another disconcerting feature thrown up during the discussion was lack of flexibility on small holdings for making changes in cropping pattern so as to take advantage of changes in the structure of relative prices.

While it was generally accepted that a rising trend in output prices is likely to benefit larger farmers more, the real level of additional gains for the large farmers will depend on the forces influencing the distribution of additional income among various factors of production. For instance, experience in several regions indicates that wage rates move up in sympathy with higher farm incomes, though here again the rise in wage rates has not been proportionate to increase in farm incomes.

The suggestion to evolve a differential structure for output and input prices for various categories of farmers was not favoured due to the obvious problems of implementing such a scheme. It was further observed that as long as additional incomes accruing to large farmers are reinvested in farm business, the society should welcome the phenomenon; and there was sufficient evidence to indicate that the large farmers tended to reinvest a large proportion of their additional incomes in farming.

But, what happens when reinvestment in agriculture no longer remains a profitable venture, as is bound to happen given the institutional constraints on expanding the size of operations in agriculture? Will the additional farm incomes be frittered away in non-productive uses? How best to syphon off the surpluses from agriculture? Empirical evidence in this area is still lacking. In the short-run, growth in agriculture does not seem to have exerted any upward pull on growth in the industrial sector, at least in the aggregate context. Perhaps there is necessarily a time lag before growth in agriculture gets reflected in a higher level of industrial activity? Or is it that the phenomenon of growth in agriculture, confined as it has been only to certain pockets, could not have in any case influenced the aggregate structure of industrial activity? These are issues to which research workers may like to devote some efforts.

Pricing of Agricultural Inputs

The various issues raised in the Rapporteur's report were discussed at length. First, the question of slowing down in the rate of growth in consumption of fertilizers was examined. Some of the participants indicated that the adverse movement in the parity of output prices relative to fertilizer prices might be one of the main reasons. While empirical evidence to support this hypothesis was not readily available, experience in some areas

indicates that the average dose of fertilizers even on progressive farms has either remained static or even declined marginally, largely in response to changes in output/input price ratios. Some participants, however, felt that the demand for fertilizers at the present stage of agricultural development in India was price inelastic and the lower consumption figures were largely a reflection of the lack of availability of fertilizers. Quality deterioration in seeds was also mentioned as a factor responsible for lower rate of expansion in fertilizer consumption. It was observed that after a few years of use the genetic quality of high-yielding seeds tended to deteriorate. The plant breeders, however, do not agree with this view. Perhaps the quality deterioration in seed is largely a result of lack of care by farmers who raise their own seed. Realising the importance of specialised skills needed for production of quality seeds, the farmers in areas like the Punjab and Haryana have already started expressing their preference for seeds supplied by specialised agencies. But, the current margin between the prices of home grown seeds and purchased seeds, at a minimum level of 100 per cent, is too high to promote large scale use of seeds produced by specialised agencies. The need for significantly reducing this margin was, therefore, generally felt. How far is it possible for the seed industry to achieve this? The answer, it was observed, lies in the scale of operations, particularly at the seed processing stage. was felt that considerable economies of scale exist in the seed processing industry and these must be exploited if seed has to become a purchased input like fertilizers and pesticides. The need to take advantage of technology and scale economies for other agricultural inputs was also emphasized.

There was some discussion on the phenomenon of substitution of human labour by mechanical power in some areas. Here again, empirical evidence as to the factors responsible for this phenomenon is generally lacking. But, it was felt that the use of mechanical power is by and large motivated by consideration of timeliness of operations. There was no evidence to suggest that the relative prices of human labour and mechanical power have anything to do with the phenomenon.

In a way the level of discussions on the subject was rather disappointing. It is the impression of this Rapporteur that agricultural economists have not started addressing themselves seriously to the various problems in this area. It is obvious that given the significant rise in the share of purchased inputs, particularly those supplied by the industrial sector, the production, pricing and distribution policies followed by the input producing industries will have a direct bearing on farm costs and consequently on farm incomes. It is time that agricultural economists start taking interest not only in the immediate problems of pricing and distribution of farm inputs, but also the industrial policy frame which conditions the production pattern of such inputs.

SUBJECT III

INSTITUTIONAL CREDIT FOR AGRICULTURE

RAPPORTEUR : S. M. PATHAK*

Having ascertained that individual members of the group have gone through the papers and the Rapporteur's report, the group proceeded to discuss various points that had emerged.

Does credit gap exist as a consequence of adoption of new technology in farm development and farm production ? If so, has it been measured ? What can agricultural economics discipline do to properly measure the demand for credit; in the short run and in the long run ?

The group felt a distinction should be made between potential demand and the effective demand for agricultural credit. The latter having bearing on the structure and the organization which should reasonably be set up by the credit institutions to service the same both co-operatives and commercial banks. The potential demand is usually projected by the planning agencies on certain optimal notions. However, the effective demand would arise out of readiness of the farming community, in general, to adopt the optimal farm development and farm production practices. The well known stages of adoption of innovations in agriculture will be the main pivot in conditioning this effective demand. Though these stages as obtaining in our country have been identified, there cannot be clear-cut demarcation between different types of adoptors which may give some lead to measure the effective demand for credit. It is not only adoption of new technology but the degree of intensity of technology adopted from farm to farm, input to input which may influence the size of the *effective demand.* Where farmers are willing to adopt new technology and are inclined to approach the credit institutions for financial support, the question of eligibility arising out of land ownership/tenancy pattern may, in spite of all the liberalisation in lending practices that has taken place, came in the way of their taking assistance from the credit institution. The group incidentally discussed the criticism that the commercial banks have been financing relatively affluent and larger farmers and felt that perhaps the factors like early adoption, title to property, economic position influenced the flow of credit to them by this institution.

The question of economic viability of farm family unit often stand in the way of the credit institution to meet the demand for credit arising from comparatively poorer section of farming community. Therefore, the methodology evolved to assess the effective demand for credit at micro and macro level should provide for the measurement of various factors which influence the effective demand for credit. A consequential outcome of the use of such methodology can be the identification of certain policy and programme steps

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which policy makers may take to bring closer potential demand and effective demand.

The group discussed in detail whether agricultural economics discipline does have such tool to measure effective demand for credit and it was felt that the discipline does have tools suitable to measure it in its kit. It was also felt that the estimate of effective demand could be worked out with near accuracy for one year to start with. A methodology for long term projection can be evolved out of the experience gained in estimating the demand for one year. The point was raised as to the competence and ability of the credit institutions, like commercial banks and co-operatives to undertake such studies by themselves. The group felt that the commercial banks in the districts where they are to play the role of lead banks should undertake such studies. If need be, they may take the assistance of research institutes/universities.

The functioning of co-operatives in the field of agricultural financing was reviewed. The most distinct advantage which co-operative institutions have is its network down to the village level and they can provide credit services at minimal cost. The group discussed in detail the possibilities of using this network for providing necessary credit support to farmers to meet both short term and long term requirements under dynamic agriculture. The group felt that the resources were not the main constraint with the co-operatives to expand their activities in this field. It was rather the overdues position that made them impossible channels at least for the time being for purveying credit to progressive agriculturists. The overdues position itself was traced to the poor share capital base and poor management. The co-operatives did not have the proper sense of belongingness to the institutions which could have inculcated in them a real sense of responsibility. However, co-operatives have not failed everywhere. A review of co-operatives showed that in agriculturally advanced areas, co-operatives were successful. In these areas commercial banks were also active in financing agricultural sector. Therefore, the group felt that the main concern should now be to consider ways and means to strengthen the institutional credit structure to meet the effective demand for credit of the backward areas which are having potential for growth.

The question of co-ordination between the activities of co-operatives and commercial banks in financing agriculture was discussed. The demarcation of areas, functional allocation between production inputs and infra-structure or service facilities, the basis of working out repayment period, were some of the other observations made by the group. Particular emphasis was made about the organizational limitation of the commercial bank's branch in extending its operation beyond a certain manageable distance and parallel/duplicate financing when it occurred was not only between commercial banks and co-operatives but also occurred amongst the commercial banks. The group discussed the matter of issuing pass books to each farmer wherein the banks can record the advances made to him.

Some misgivings were discussed about the issue of correct types of pass books. The group discussed the problem of bringing entries upto date and the facilities the farmer can enjoy under the present circumstances to obtain the pass book without much difficulty. In the absence of pass book some workable device for the exchange of information between lending institutions in the district can be evolved by the lead bank.

The group also reviewed the experiences of commercial banks in direct lending to primary co-operatives in the States of Mysore, Andhra Pradesh, Madhya Pradesh, Uttar Pradesh and Haryana. While successful operations were reported from Mysore and Andhra Pradesh, the experiences in the other three States were not good. The group also discussed the factors which might have contributed to the success in Mysore and Andhra Pradesh. One of the distinguishing factors was the history and background of the commercial banks involved in this experiment themselves. They had their roots in the rural areas and therefore, it facilitated their operations. Such background was not there with other commercial banks which are involved in this experiment in other States, like Bank of India, Bank of Baroda, Central Bank of India, etc.

The group also felt that besides direct lending to co-operatives, commercial banks should consider financing of co-operative projects, like lift irrigation, custom service units, processing and storage units, etc. The representatives of the commercial banks told that they are financing such projects in a limited way.

The group discussed in detail the problems of financing small and marginal farmers who could be raised to the levels of economic viability. The most important problem was the identification of the small farmers in itself. In this connection, the factors to be identified were generally enumerated as size of holding, environment, farming structure and social status. Supervised credit approach to assist small and marginal farmer was also discussed in this context and it was felt that the farm family should be considered as a unit and activities both on home and farm front should be guided properly. The most important impediment in the small farmers development is settlement of title to land. There was a consensus in the group that the scope and jurisdiction of existing institutions like Small Farmers Development Agency/Marginal Farmer and Agricultural Labourer Agency should cover the above functions mainly, identification, supervision of credit and settlement of land titles. These bodies should be strengthened with adequate powers and with competent trained technical staff if the functions are to be discharged successfully. The National Commission on Agriculture has considered the need for providing integrated agricultural credit service to the small and marginal farmers and agricultural labourers and also the necessity for setting up a separate organization for providing the integrated agricultural credit service to these sections of the population. It has submitted its recommendations in its interim report on agricultural credit to the Government of India. The report is under consideration. The main recommendations of the report

were discussed. The group felt that the approach of National Commission is in the right direction and if these recommendations are accepted and implemented by the Government, the small and marginal farmers will get the needed integrated agricultural credit service.

The coverage of risk offered by the credit guarantee corporation was considered by the group and it was felt that this scheme did create some confidence amongst the commercial banks to finance relatively smaller farmers.

The cost of institutional credit to the farmer was discussed in detail as also the relative cost to him in respect of credit from co-operatives and commercial banks. Commercial banks have adopted varying norms to collection, inspection and other service charges besides interest. In addition to these, the farmer has also to incur expenses at a high rate in executing documents in favour of commercial banks. On the other hand co-operative credit can sometimes be very costly as well. Among other costs, the return which farmer gets on the share capital deposited with co-operatives even under the most favourable circumstances may be 3 per cent less than the interest he pays on the loan which include this amount also. Besides, he has to make thrift deposits often out of the sale proceeds effected through co-operative marketing. Sometimes, the proceeds of sale are credited to his loan account after a month or so and the farmer has to pay the interest to societies for that period also. One of the members of the group conducted a study on cost of co-operative credit to farmer and the findings of the study showed that the actual cost of co-operative credit came at 17 per cent while the interest rate charged was only 9 per cent. The group concluded that difference between cost of credit amongst the existing lending institutions in the field of agriculture may not be significant.

The question of differential rates of interest was discussed in detail. The group felt that unless the span of difference in interest rates is large enough, the impact would not be significant and may pose problems in its implementation. Perhaps, at this stage interest rate itself is not significant part of the total cost of operation and they do give considerable relief to farmer if compared to the rates charged to him by the local moneylenders. The important consideration at present is the availability of credit and services on time and in the form needed by the farmer rather than reduction in the rate of interest. If credit and services are made available on time and in requisite form the farming community would be in a position to increase agricultural productivity to the desired level.