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## **CO-OPERATIVE FARMING EXPERIMENTS IN BANGLADESH: A NOTE ON THEIR NATURE OF CO-OPERATIVIZATION**

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### **ABSTRACT**

This paper is intended to outline the pattern of co-operativization practised in the co-operative farming experiments in Bangladesh. Results of the analysis gave rise to some hypotheses demanding micro-research. It has been pointed out that land reforms seem to be necessary for homogenizing the farm size and tenancy relations in order to ensure equity in returns to land and son-land factors in co-operative farming. Examples indicate that present forms of collectivization prior to mechanization can produce some "indirect" effects through better loan use, easy access input to and extension service, while the size effect on productivity may be non-spectacular or negative due to initial dis-economies. The paper concludes that goal conflicts between heterogeneous member groups can be tackled in the short run by limiting the level of collectivization.

### **I. INTRODUCTION**

This paper will embody preliminary observations on some co-operative farming<sup>1</sup> projects in Bangladesh since 1972- many of which faced operational deadlock only after one or two years of their inception while some others are still functioning. The main focus of this paper will be on certain key issues regarding the nature and degree of co-operativization practised in the experimental cooperative farms by postulating the role of co-operative farming in a long term transformation process of agriculture, the success or failure of which will be determined by the given socio-economic conditions.

The question of establishing a co-operative farming system - be it backed by pronounced commitment of the state to definite national economic and politico- ideological goals or by some private organizations to attain philanthropic and academic results- can not be examined superficially. This is firstly because there is a tremendous gap between the stage at which the farming community of Bangladesh is situated today and the coveted stage the politicians, planners and economists might want the farmers to reach through co-operative farming practices. Secondly, because there seems to exist some tendency not to differen-

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tiate between what can be done or how much modification and change in the existing farming system may be possible under the present circumstances ( in the short run ) and what can be done in a gradual continuum by allowing things to change in the long run. Confusions of this kind arise in the absence of clear guidelines and consequent agricultural policies.

The main objective of this paper is, however, to review the pattern of co-operativization followed in the major experimental co-operative farming projects in Bangladesh. At the start, conceptual issues in the typology of co-operative farming is presented so as to link international experiences to the Bangladesh projects ( Part II ). Part III of the paper gives some historical background to the current efforts in Bangladesh to evolve a co-operative farming based strategy for rural development while in Part IV certain theoretical issues and differentiating characteristics of various co-operative farming groups are analysed on the basis of some pilot projects. A typology has been applied for this purpose. Finally, the paper outlines some of the salient problems in co-operative farming which are both within and outside the domain of the farming community.

## II. CO-OPERATIVE FARMING : AN INTERNATIONAL COMPARISON

A general definition of collective farm, be it called co-operative farm, joint farm or commune, is difficult. Even more difficult is to work out a commonly acceptable typology of the existing models of collective farms practised in different parts of the world, and find out the ones parallel to those under experimentation in Bangladesh.

For purposes of general understanding a collective farm may be defined as a more or less permanent organization of farmers for joint use of land by their common action of various degrees and nature in the real production sphere with a view to achieving economic as well as socio-political goals. The differences in ideological commitments of nations, political identities of their government and related policy objectives in respect of agricultural development makes it, however, possible to work out a typology of different kinds of collective farms around the world. The differences between collective farming systems lie more in their broad socio-economic development goals and related policies rather than in the structural and organizational variables. In fact, the structural and organizational matters are to a significant extent dependent on what policy objectives are stipulated.

Galeski distinguishes the following four types of collective farming ( Galeski 1977, p. 17 ) :

1. Production co-operatives in socialist countries created by what has been termed as deliberate state policies for an ultimate socialization<sup>a</sup> of the whole production and distribution process in agriculture ;
2. Communes as in Israel, organized in strict observance of religious values for attaining radical social objectives ;
3. Collective farms of the cultivators of newly reclaimed lands distributed by government ;
4. Collective farms with a view to gaining economy of scale.

Another genuine criterion for classifying collective farms is to take into consideration the diverse nature of social systems and development strategies the countries concerned follow. Measured by this criterion, one can divide collective farms into two broad groups : socialistic and capitalistic. They correspond to collective farms under directive and interactive systems in Galeski's model ( Galeski 1977, pp. 35-41 ).

In case of the socialistic type of collective farming system, the policy of co-operativization essentially represents a continuation of radical land reforms measures for changing the ownership and tenure systems and thus forms the most important step towards a socialized agriculture within the centrally planned economy. Here land, labour, capital and management are co-operativized in a systematic process of gradual transition from lower to higher forms of co-operatives. A co-operative is considered to be of higher or lower type according to the level of collectivization of land, labour and capital (Ahmed 1977, pp. 33-51).

In capitalist countries of the west, collective activities in farming are pursued under competitive market conditions with a view to lowering production costs and increasing profits through joint use of resources on large scale. Under such conditions farming collectives can be considered as "instruments for rationalisation" in the process of competition,

In the context of developing countries we can not speak of fullscale collective farms but of their proto-types where the degree of cooperativization of land, labour and Capital is still low. The distinction between the socialistic and capitalistic pattern of collective farming is also reflected in the policies of the developing countries for introducing co-operative farming. The developing countries apparently following a socialistic way of development have customarily embarked upon democratic land reform policies coupled with perspective

programmes for the gradual creation of conditions for collective farming. Algeria, Syria, Tanzania, Iraq, and some other countries of Asia and Africa provide examples of phased transition from peasant/individual farming to simple forms of group activities in farming with consequent policies towards an all-out collectivization of agriculture in the long run (Michalski 1976, pp. 5-7).

On the contrary, developing countries following capitalistic type of development strategy apparently do not set any perspective national goals for social transformation through the promotion of production collectives in agriculture. Nor have ideological consideration so far served as an impetus for organizing co-operative farms in these countries. India, Pakistan, Iran, and Tunisia provide examples of this case. Within the limits of semi-feudal or premature capitalistic production relations, the co-operative farms in these countries tend to provide the farmers with some institutional base for large-scale and capital intensive production by joint resource use. It is often complained, may be not without justification, that under pre-capitalist or capitalist modes of production such production collectives usually tend to strengthen the big farmers' enterprises by widening their resource base in comparison with small farmers, tenants and landless people. The attributes of feudal and partly capitalist production conditions make the recent co-operative farming projects in Bangladesh an appropriate object of research to test this hypothesis.

### III. CO-OPERATIVE FARMING IN BANGLADESH

Though fragmentation of holdings and extremely small farm size compelled the governments of the geographical area now comprising Bangladesh to implement policies for land consolidation with a view to raising the operational size of plots, co-operative farming on collective basis was rarely tried until sixties. Mention is, however, made about a joint farming society in the then East Pakistan whose foundation dates back to the time prior to the partition of the sub-continent in 1947 (Digby 1963, p. 53). Unfortunately very little is known from the available literature about the nature of economic activities and the structure and organization of this society.

Co-operative farming in Bangladesh (then East Pakistan) had been until recently results of sporadic government endeavours. Following the initiatives of the Co-operative Directorate in the early sixties, 334 "co-operative farms" were organized upto 1971 with a total number of 11,603 members (East Pakistan 1970, p. 11). The very limited scale of co-operative organization and manage-

ment of the crop production, and the concentration of the economic business as well as these societies almost hundred per centon-crediting and supply activities barely provide any ground for naming these societies as 'co-operative forms'. Only the so-called 'joint farming societies'—one of the three kinds of co-operative farms named by the Co-operative Directorate—resemble a collective farm although by naive standard of the definition. These joint farming societies—accounting for only 2% of the total number of co-operative farms in 1970 (East Pakistan, 1970, p. 5)—were based on consolidation and pooling of member's plots, joint cultivation and common production plan. The harvest was distributed to the farmers in proportion to land after deduction of production costs valued in terms of per unit of crop, usually paddy, at market price.

No exact information is, however, available on the existing number of co-operative farms under the Co-operative Directorate, nor much is known about their functioning as production collectives of farmers today.

The recent wave of experimentation with co-operative farming in Bangladesh is essentially a corollary phenomenon of her independence in 1971 and the subsequent policy changes in respect of national development. Increasing emphasis was given by the government of the new nation among other things to the creation of a 'socialistic economy'. The First Five Year plan laid down the foundation of Bangladesh Government's philosophy of socialistic economy in combination with democracy, nationalism and secularism in the social, political and cultural life. Great importance was attached by the First Five Year plan to the establishment of socialistic production condition in agriculture as one of the basic prerequisites for the socialistic economy (Bangladesh, 1973, pp. 4-8). The government too was relatively persistent in staying toward that objective.

Almost at the same time as the government policy with regard to the reorientation of the country's economy got reflected in various statements of the nation's leaders and as the preparations for the formulation of the First Five Year Plan were under way, there was a growing feeling among the economists, planners and leaders that some concrete approach was needed to implement those policies in agriculture. It was at that time the economists and planners came to the idea of examining the possibility of a strategy for co-operative farming in Bangladesh.

As early as April 1972, a co-operative farming seminar was held at the Bangladesh Academy for Rural Development (BARD), Comilla, to deal with the problems and prospects of co-operative farming in this country. Despite lack of consensus among the seminar participants with regard to the policy issues for co-operative farming in Bangladesh, the functions and objectives of any future

co-operative farms as well as the preconditions for their creation and steady growth can be ascertained from some of the seminar papers. Regarding the objectives behind organizing in future of co-operative farms in Bangladesh, emphasis was given to the following aspects ( Rahman 1972 ; Haque 1972 ) :

- Gradual transition from individual farming to co-operative farming in the whole country ;
- Providing material-technical and socio-economic base for large-scale production, mechanization, intensification and equitable distribution of income ;
- Rationalization of land use by abolishing the existing land tenure arrangement ;
- Creation of employment opportunities through intensification and modernization ( use of irrigation water, chemicalization and HYV seeds ) ;
- Creating conditions for future agro-industrial complexes.

A significant number of the seminar papers dealt with the preconditions for a general introduction of co-operative farms in Bangladesh. Some of them emphasised the need for reforms in the existing land tenure systems, co-operative laws, pricing system and market structure as well as the successful implementation of the Integrated Rural Development Programme ( IRDP ) of the government ( Samad 1972 ). Some others laid stress on political and ideological preparation of the farmers, co-operative leaders and government officials through formal training as well as mass education. A qualitatively noteworthy suggestion was made in the seminar that a "model" especially suitable for Bangladesh conditions should be worked out for step-by-step transition from simpler to complex forms of co-operative farms as was done in the socialist countries (Haque 1972). In view of the need for differential and gradual transition to co-operative farming, the seminar also adopted a resolution calling upon different academic institutions and development organizations to carry out experiments with alternative types of co-operative farming under variable socioeconomic conditions and natural peculiarities.

To such principal issues as property rights of members, organization, management and finance of the farms as well as the distribution of income, the seminar seems to have given little consideration. Yet at least one success of the co-operative farming seminar at BARD has been the quick response of many organizations to its call for conducting pilot experiments with alternative models of co-operative farming throughout the whole country.

#### IV. SOME PILOT PROJECTS ON CO-OPERATIVE FARMING

Within a few months following the co-operative farming seminar at the BARD, a number of pilot projects were started under the supervision of different institutions in the country. Unfortunately the exact number of these projects can not be ascertained. The projects vary from one another according to their modes of organization, management and financing. Two main types described in this section of the paper are : co-operative farms of semi-collective type and share cropping co-operatives.

##### Co-operative Farms of Semi-Collective Type

The Shimla Co-operative Farming Project in Mymensingh under the supervision of Bangladesh Agricultural University, and the Bamail Co-operative Farm in Comilla under the auspices of the BARD fall under this category. Both of these projects were started in 1972 on the basis of partial collectivization of members' land and labour as well as land use. Only parts of members' lands which fall under the command area of the irrigation facilities of the project were brought into the joint pool for the production of *Boro* paddy. Crops to be grown during other crop seasons than *Boro* are cultivated individually. As such they represent a first step towards a full fledged co-operative farm with explicit production function involving all crops to be grown on the pooled lands, and can be termed as semi-collectives. In a society like ours, where the farmers attach high value to individual ownership and freedom of decision making, this kind of semi-collectives with partial pooling of land and labour can be of strategic importance as a model for joint resource use under peasant farming conditions. An added advantage of this type of semi-collectives is their role in preparing the farmers both organizationally and ideologically for an eventual shift to higher forms of production collectives with wider scale of pooling of land, labour, and possibly capital.

Of the two co-operative farms of semi-collective type, the one at Shimla has been continuing its activities till today, although within the constraints arising from socio-political factionalism in village life, and thus it merits attention as an object of effective exercise in search of a model for rural development. On the contrary, the Bamail co-operative farm, founded under the supervision of the BARD with 72 members and 42.26 acres, had to be liquidated after three rice crops on grounds of uneconomic cost/return ratios ( Hussain 1973, pp. 76-79 ).



The Bamail co-operative farm was thus a short lived affair producing no impact of significance as an experimental venture.

In contrast to Bamail, the co-operative farm at Shimla was started with pronounced commitments to a gradual transformation from peasant farming system to a collective one within the framework of a village based organization involving all agricultural and rural development activities. The central idea is to broaden, and also intensify, the development activities around group farming and related joint ventures like cottage industries, husking groups, fish farming groups and rickshaw groups, in order to evolve a model for gradual change from individual farming to a collective village.

With this broad perspective, the Shimla Co-operative Farming project was launched in 1972 initially with 104 members who brought 83 acres of land into the joint farm (Hussain and Ali 1973). By now the number of member has been increased to 155 and the operational size to 100 acres.<sup>6</sup> This slow growth of operational area despite a proportionately higher increase in the membership indicates an increased participation of small and landless members in the joint farm during the recent years.

The organization and management of the co-operative farm at Shimla is vested in an elected executive committee of 12 to 18 members, the number varying from year to year according to operational size of the farm. Besides there are a manager and an accountant, both salaried employes of the farm. For the sake of sound organization of field operations and for inducing some spirit of groupwise competition, the pooled plots are formed into compact blocks, each to be supervised by a block leader. Necessary credit for the farm was provided initially by the Central Co-operative Bank and now by the Sonali Bank.

In the field of mechanization, the farm has under its disposal two deep tubewells and several improvised farm equipments like weeder, thresher and sprayer. Irrigation is carried out entirely by the deep tubewells while about 25% of tilling is done by tractors rented from the Bangladesh Agricultural University. The degree of improved implements use is about 50% in weeding and 25% in threshing (Table 1).

Unlike in peasant farming, the organization for distribution of income in a collectivized farm is much complicated. The question of distribution of income derived from a co-operative farm generally includes the size of total income accruing to members, the proportion to be transferred to co-operative funds for accumulation, and the principle of apportioning the distributable income for

**TABLE 1 DEGREE OF CO-OPERATIVIZATION AND EXTENT OF MECHANIZATION PRACTISED AT SHIMLA, BAMAII AND GURUDASPUR CO-OPERATIVE FARMS**

	Shimla <sup>a</sup> (1978)	BamaII <sup>b</sup> (1973)	Gurudaspur <sup>c</sup> (1974)
Percent of members' farm land brought into the co-operative farm	30	15	60
Percent of the cropping intensity co-operativized	50	40	100
Percent of farm operations done by members	40	20	60
Degree of mechanization (%)			
Irrigation	100	100	70
Land preparation	25	100	NA
Weeding (improved implements)	50	30	NA
Harvesting	00	00	00
Threshing (improved implements)	25	00	00

NA Not ascertainable

Sources : a) Interview with Mr. H. Ali, Officer-in-Charge of the Shimla project, on June 24, 1978.

b) Husain 1973, and interview with Mr. Z. Hussain of the BARD on February 17, 1974.

c) BARD 1972.

land, labour and other production inputs supplied by members. Because of the subsistence type production characteristics of the members, the co-operative farm at Shimla, however, has not been able to maintain a commercial method of income distribution. The total harvest is distributed to members according to land after deducting 10 *seers*<sup>4</sup> of paddy per acre for seed, all operational costs valued in terms of paddy at harvest price, 10 *seers* of paddy per acre for savings fund and 1 *seer* per *maund*<sup>7</sup> of total paddy output for welfare fund.

Lack of fixed work-norms for labour and principles for remuneration to other inputs (work animals and farm equipments) supplied by members and non-members make it difficult to compute the real production costs. This may be also one principal factor responsible for overrating labour supplied by members, both qualitatively and quantitatively, resulting in highly inflated production cost

figures during the initial years of Shimla farm (Husain 1977, p. 7). For the Bamail farm, it represented a problem of colossal magnitude raising the total production cost of Boro on the 49.26 acre farm during the period from December 1972 to June 1973 from an estimated figure of Taka 23,980.00 to an actual cost figure of Taka 63,963.00 (Husain 1973, p. 42). The negative effect of "un-normed" system of valuing labour was, however, minimized to a great extent at the Shimla farm due to a shift from the system of recording the quantity of labour on daily basis to hourly basis. Overvaluing the quantity of labour supplied to the co-operative farm could be thus reduced, although the question of perfectly valuing the quality of labour is yet to be solved.

Directly connected with question of organization of income distribution is the level of distributive justice and equity attained by a co-operative farm. In co-operative farming, equity in distribution of income can be achieved by treating "non-land" factors of production at par with land. This would have probably a negative incentive effect on supply of land for co-operative farming but a positive effect both on the quantity and quality of labour supplied by members. Equity in income apportioning in the sense of equal returns to land and labour is thus in conflict with transition to co-operative farming without prior land reform for homogenizing the ownership pattern so that the income differentials for land may not be too big among members making them a source of conflict.

The reverse effect of land as the only denominator for apportioning income has been multiplied at the Shimla farm by the fact that members do not bring all their land to the co-operative farm. Since only a small part of a member's land is brought into the joint pool, it is obvious that most of his attention and care will be directed towards the operation and management of individual plots. The provision of hired labour at the cost of the collective practically relieves members' obligation to supply own labour to the collective unless they are paid high wages. This causes a low proportionate share of members' labour to the total labour devoted to their individual plots and to that supplied to the collective by non-member labourers (compare Table 1). The situation is a little different in case of Shimla where a large part of the farm operations are done by landless persons who are given the status of associate members having no right to the net profit of the farm but the benefit of getting job opportunities in the joint farm and other enterprises (cottage industry) of the Shimla project.

Economy of scale is often held as an important criterion for the success of a co-operative farm. Under Bangladesh condition, however, it seems to be

difficult to use this criterion for examining the success of a co-operative farm since the question of economy of scale is as much linked with the operational size of the farm as with such factors as production relations of the economy, size and role of factor and product market and more importantly the availability of capital and technology. Even empirical evidences can be marshalled to the support of the assumption that with extremely limited role of market and low level of technology like ours, the size effect tends to be negative indicating higher productivity of land in the labour-intensive small farms than in the larger ones with both labour and technology constraints ( Hussain 1977, p. 331). This may also be valid for Shimla co-operative farm when compared to the neighbouring individual farms ( Husain and Ali 1975, p. 6 ).

Neutral or even negative scale effect at the initial stage should not necessarily represent an argument against co-operative farming. Experiences from Shimla indicate that the initial diseconomies resulting from size-to-technology conflict could be reduced during the years from 1972 to 1976 by an 'indirect' impact of increased operational size on the production improvement through better loan contracts, more productive use of loan in farm modernization and more effective group based planning and agri-extension work ( Husain 1977, p. 9 ). Added to this 'indirect' influence of increased farm size due to co-operative farming are some other positive effects like improvement in production practices, accumulation of investment fund out of compulsory savings from the collective harvest, better loan repayment which is ensured also by compulsory deductions from the harvest. Presumably, the co-operative farm may have also democratized to some extent the social relationships in Shimla village by bringing the farmers together and letting them share the development opportunities ( credit and inputs ) irrespective of size and tenancy category.

It can be concluded from the experiences of Shimla that under conditions of technology and capital constraints the success of co-operative farms of semi-collective type should not be primarily judged by its scale effect. Any collectivization prior to mechanization or part mechanization may, however, produce 'indirect' effects like improvement in rate of innovation, loan servicing, group based planning and extension, and democratization of social relations forms among farm people. Additionally, it may help farmers prepare for still higher of collectives in the future. Positive experiences of Shimla may have made it possible to replicate the model in other areas like Katalshar, Dohakhola and Gopalpur in Mymensingh district.

## Share Cropping Co-operative Farms

Share cropping co-operative farms, like those of Gurudaspur in Rajshahi and 'Nabazoog' in Chittagong provide for some sort of contract between the land owners and their co-operatives ( as tenants ). In some cases a third party is involved, namely the tenants, whereby the co-operatives play the role of subtenant or an intermediary between the land owner members and their tenants.

So far two types of share cropping co-operative farm have been evolved. In case of the first type, a contract is reached between the co-operative and its members ( essentially land owners ) for a period of about five years under which the members put parts of their land under the disposal of the co-operative for joint cultivation of crops at the cost of the co-operative. The harvest is divided equally between the co-operative and the members.

Agricultural operations are carried out by non-members and members, in both cases against wages. The net profit of the farm is derived after deducting 50% of the harvest as necessary production cost from the gross income. Profits of the co-operative farm are partly distributed to the members and partly transferred to reserve and welfare funds.

One of the alternative types of joint farming practices of the former Gurudaspur Co-operative Farming Project of Rajshahi corresponds to the above mentioned type of share cropping co-operative farm ( BARD 1972 ). This project was started in 1972 but liquidated after only two years.

A second type of share cropping co-operative farm involves a tripartite arrangement between land owners, tenants, and their co-operative, the latter performing the function of a subtenant. This model of share cropping co-operative farm was also practised in the above mentioned Gurudaspur Co-operative Farming Project and recently by the Nabazoog Tebhaga Khamar of Chittagong ( Aktaruzzaman 1978, p. 3841, In case of these co-operative farms, the land owners provide land, the tenants labour and the co-operative farm other necessary inputs. The land-owner members and tenants each get one-third of the harvest, while the rest one-third accrues to the co-operative farm for having supplied seeds, fertilizer, equipments and other production inputs as well as for building funds.

A special case may, however, arise as a result of the peculiar organizational method of the second type of share cropping co-operative farm whereby a land-owner member is allowed to operate his own land as "tenant" and thus receives two-thirds of the yields.

Lack of empirical data on costs/returns of crops grown in the share cropping

co-operative farms of Gurudaspur and Nabazoog makes it risky to provide an elaborate judgement on their relative performance in comparison with the co-operative farmers of semi-collective type at Shimla. A comparison of the level of co-operativization of the factors of production in these different co-operative farming projects may be, however, possible on the basis of the available literature (Ahmed 1977 ; Akhtaruzzaman 1978 ; BARD 1972 ; Hamid 1977). The relevant information has been summarized in Table 1.

It is evident from Table 1 that the level of co-operativization of land and labour is higher at the share cropping co-operative farms of Gurudaspur than those at Shimla and Bamail. Participation of small farmers and some landless labourers as tenant members of the co-operative farms of Gurudaspur may have possibly helped raise the members' labour devoted to the co-operative farm upto 65% against 25% for Shimla and 10% for Bamail. Likewise, participation of landowners with better land resource position but labour constraints might have facilitated a higher degree of co-operativization of members' land at Gurudaspur farm ( 60% ), compared to 30% at Shimla and only 15% at Bamail. The complementary nature of resource endowment between the two categories of members—owners and tenants—is also reflected in the higher level of co-operativization of land use at Gurudaspur farm ( 100% ) in comparison with Shimla ( 50% ) and Bamail ( 40% ). This higher figure for co-operativization of land use by Gurudaspur co-operatives may also be attributed to the fact that the cropping intensity is lower in Rajshahi region, thus making a round-the-year management of crops by co-operatives easier than in Shimla and Bamail areas where the cropping intensity is higher, and the crop-mix more complex.

The dependence of members' willingness to combine their land, labour and other inputs on the nature of their relative resource endowment has also been confirmed in a recent case study ( Alam 1979 ) of a co-operative society in Netrokona, Mymensingh. According to that study, member families with larger landholdings but limited family labour and member families with scarcity of land but surplus family labour reported their willingness to co-operate with each other for joint resources use. Varying 'goal patterns' of farmers can be identified by classifying the whole set of their socioeconomic needs on the basis of their heterogeneous resource bases ; and this may be the source of a strong hypothesis linking the complementary and/or conflicting 'goal patterns' of farmers with the success of a co-operative. In order to become a successful organization, a co-operative farm should assume the forms and functions which suit best to members,

complementary goals and tend to reduce the conflicting ones. Apart from contradictions of some other kinds, like rural factionalism, kinship conflicts, etc., the goal conflicts between prospective member enterprises may be examined thoroughly before organizing successful co-operative farming programmes.

#### V. PROBLEMS AND PROSPECTS FOR CO-OPERATIVE FARMING EXPERIMENTATION IN BANGLADESH

In elaborating on the problems and prospects of co-operative farming experimentation in Bangladesh, one is confronted with two key problems. Firstly, micro-level empirical study to establish the hitherto existing assumptions on equity and productivity through co-operative farming, and research on the social costs involved in it, are lacking. Secondly, the experimental co-operative farms are not integrated in any kind of national policy framework, which makes it difficult to assess their use in any nationwide replication in the future.

For our context, the second issue seems to be of crucial importance since it raises the basic question : how will the experimental co-operative farming projects continue, both in the short and long run, with their members belonging partly to a social system\* and partly to an opposite one ? Moreover the co-operative farming projects are quite obviously bound to "swim against the stream" since socially, economically and politically they can not be isolated from the surrounding adverse system as well as the influence of the other sectors of the economy. Clearly formulated state policy with regard to transition to co-operative farming and parallel developments in other sectors of the economy are, therefore, basic preconditions for the success of co-operative farming.

Also keeping in view the percent of members' land, labour and capital brought into the co-operative farm, the extent of total land use (cropping intensity) under the joint farming practice as well as the degree of members' participation in the farm works, a low level of co-operativization in the experimental projects can be easily ascertained (Table 1). This should not necessarily indicate lack of prospect for co-operative farming, rather it indicates that group activities in farm production should be at the moment confined to a desirable extent unless the basic preconditions for full-scale co-operative farming are met gradually by long term policy measures. Confining the collective forms of production activities of a co-operative group with certain aspects, like in Shimla, will likely to reduce the chances of initial conflict situations between members. For example, conflicts

of economic interests between member enterprises, which presumably vary with size and tenure characteristics, are likely to multiply with an increase in the degree of collectivization of land use or members' land and labour.

The differential income effects of co-operative farming on the land owner members and landless members are likely to make them mutually conflicting groups. Problems arising therefrom may be solved by limiting the level of co-operativization as in Shimla or by maintaining the income interests of conflicting groups through appropriate forms of resource pool and distribution of returns as in the share cropping co-operatives, and also by land reforms for making the members homogeneous with respect to tenancy and size relations.

Co-operative farming normally implies a change in the total sociopolitical status of the member farmers as producers, land owners, tenants, and in complex cases also as consumers. By entering a co-operative farm they become *co-operative farmers*, a category completely distinct from individual farmers. Any general introduction of co-operative farms in Bangladesh should, therefore, take into consideration this basic change in the character of farmers as demanded by co-operativization of resources and their use. Such a basic change will definitely involve reforms in the co-operative laws as well as deviation from the concept of traditional co-operation with only circulatory and distributive functions to co-operative forms with explicit production function by maintaining the principle of equitable distribution of incomes.

It follows, therefore, that the introduction of full fledged co-operative farms in Bangladesh can not be an immediate task rather be integrated in a perspective policy framework with slow and steady transition from simpler to more complex and higher forms of collectivization of the means of production and thus keeping pace with the objective conditions at a particular time and place. Given such a policy, the creation of a co-operative farming system will demand certain intermediate steps and forms of co-operatives. These are :

- Development of production oriented multipurpose co-operative societies ;
- Promotion of higher forms of multipurpose co-operatives with joint services and utilities ( machine hire stations and processing facilities ) ;
- Development of semi-collective production groups with partial co-operativization of means of production ;
- Finally, concrete steps towards introduction of full-scale production co-operatives.

Some other relevant theoretical qualifications on the preconditions for co-



operative farming in Bangladesh may be introduced here.

*First* : Both the concept of and rationale behind co-operatives ( with circulatory and production activities) are inconsistent with feudal or semi-feudal production relations. Whatever variable of co-operative farms one may have in mind, socialistic or capitalistic, it has direct bearing on the issue of reforms in land tenure systems, types of farming, entrepreneurship and distribution system in agriculture. Unless necessary agrarian reforms are implemented to abolish feudal ties in the land systems, the newly organized co-operative farms are either bound to succumb to the resistance from feudal pressure groups or fall in their grip as a source of low cost input supply. It is important, therefore, on the part of the policy makers, to confront themselves directly with the issue of land reform before going for continuing with any programme towards the development of co-operative farming (Hamid 1977, pp. 14-15).

Reform measures are also needed to replace feudal and middleman practices in the circulatory sphere (credit, food and agricultural product market, input supply and related services) by streamlining the supply and procurement services of the government or co-operative organisations already existing in the country.

*Second* : When we speak of co-operative farming, usually we have in mind either of the two rationales : (1) economic rationale (scale of operation, modernization and intensification) and (2) social progress (equitable distribution of income and resources) or the both. The first one demands mechanization, concentration of means of production and advance towards scientific-technological methods of farming. Policies for introduction of co-operative farming should take this rationale into account. Of course, there will be also arguments in favour of intermediate technology which is claimed to be suitable under small scale farming conditions. Even if we accept the suitability of such technology, the question will remain : how much collectivization is at all necessary or desirable to suit the intermediate type of technology or vice versa. National and local level policies for co-operative farm development should consider this technological requirement of collective farming which demands thorough examination of the alternative approaches with different time and place variables.

The second rationale brings us to an even more complex question— what should be the criterion for equitable distribution of income from the co-operative farms. This depends on both the degree of collectivization of labour and the deep-rooted "land-owner mentality" of the farmers. So long members' labour can not be fully collectivized, the question of equal returns to land and labour

will remain difficult to solve. On the other hand, the ownership mentality will offer resistance to the acceptance of labour as a criterion for income distribution. However difficult the question of equitable income distribution might seem, it would be easier solved, if at all, by ensuring the right to landed property and significant returns to it than otherwise.

**Third :** Some essential infrastructures are needed to ensure the smooth transition from individual farming to co-operative use of land. Most primary of these are : (1) a legal framework, (2) physical facilities to facilitate the marketing, supply, storage, services and finance of the co-operative farms, and (3) a network of institutions for producing appropriate manpower for the co-operative farms.

Coming to the prospects of co-operative farming experimentation in Bangladesh we can conclude that relatively successful cases like Shimla might provide encouragement, but the conflicts in the production, conflicts in the level of technology in our agriculture as well as the contrasts between agriculture and other sectors of the economy seem to put these experimentations into a dilemma of whether or not. Raising this dilemma, however, is not to deny their importance. Notwithstanding the difficulties in overcoming this dilemma, we can say that, if nothing else, the experiences derived from these experiments can be very useful in knowing the conflicts, preconditions, goals and approaches of future co-operative farming policies in Bangladesh.

The complex conditions prevailing in Bangladesh agriculture with its extremely fragmented and subsistence nature combined with the existence for semi-feudal production relations indicate, however, that such policies for institutional transformation should take into account time factors as well as organizational matters both external to the newly developed co-operative farms and inside them. While any radical decision on the general replication of the present co-operative farming projects will tend to create politically sensitive repercussions on the peasants, a slow and differential approach towards joint input use by limiting the degree of collectivization to a manageable extent may be purposeful in the short run.

#### Notes

<sup>1</sup>The term 'production co-operatives' might be more appropriate here to mean those co-operatives with collective action of the members in the actual production sphere. Since the term "co-operative farm" has been since long popular in this part of the world, this will be used in this paper in the context of Bangladesh.

\* Establishing complete socialistic production relations in agriculture.

3. The Co-operative Directorate names three kinds of co-operative farms namely-- (1) Service Societies, (2) Co-operative Farming Societies and (3) Joint Farming Societies (East Pakistan, 1970).
4. *Boro* refers to that paddy which is grown, generally requiring transplantation, during the period between February/March and June/July.
5. These data have been collected from an interview with Mr. Harun Ali, Officer-in-Charge of the Shimla Co-operative Farming Project, on June 24, 1978.
6. One *Seer* is approximately one kg.
7. *Maund* is equal to 40 *Seers* or 82 *lbs.*
8. It refers to the functional jurisdiction of a co-operative farm which has direct bearing upon the socio-economic and political status of the farmers as producers, property owners and in complex cases as consumers too.

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