

# Experimental Projects at Panchkitta, Comilla, An overview

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## Introduction

In the context of rural development a variety of action research projects have been implemented to identify their feasibility. The experiences provide manifold materials to discuss the relation between framework and strategic menu. Both factors influence each other. In particular, it seems to be of interest whether or not the former as foundation could behave flexibly to embrace the diversity of the latter. For instance, it is evident that Comilla model in the 1960s and 1970s achieved agricultural development by way of infrastructural improvements and modern farming technologies<sup>1</sup>, the limited success, what is called, in replicating the Comilla model at the national level is worthy of lesson to re-think the relation between the above mentioned two factors in consideration of locality as entity at the starting point of JSRDE project in Panchkitta village.

Meanwhile, keeping such four principal perspectives as institution, linkage, farming technology, and off-farm job of JSRDE in mind<sup>2</sup>, several pictures of rural development have been sought. Action projects, thus, in Panchkitta have been implemented so as to identify the optimum canvas (viz. functional/flexible quality) as the framework and paints (viz. organic combination) as the menu. In particular it draws attention as well as interest that Panchkitta lies in a certain point of extension of the Comilla model. What the Comilla model has stocked in the experiences of the population of Panchkitta could be perceived to be given condition whenever new developments are introduced by JSRDE Project. Therefore, much efforts have been made to avoid vicious repetition of unsuccessful activities experienced so

<sup>1</sup> Herein, the infrastructure includes physical, organizational and administrative aspects.

<sup>2</sup> These key words were identified at the Workshop on Mid-Term Review of Joint Study on Rural Development Experiment Project held on December 7th and 8th, 1993 at RDA, Bogra.

far. Even though a project was repeated along popular needs, JSRDE Project has tried obstinately to introduce something new in both processes of planning and implementation. Intangible capability building rather than physical success is paid attention to. Table 1 shows which of the four principal perspectives the major action projects place focuses respectively. Apparently, the four perspectives are correlated rather than divisible.

**Table 1. Action Projects and their Relation to Key Clues**

Project	Institution	Linkage	Farming technology	Off farming
Powertiller	***		**	
Goat	*	*		
Fish-cum-paddy	**	*	***	
Milch Cow	*	**	*	
Seed/nursery	*	*	**	**
Joint-marketing	***	**	**	***

Note) the extent is as follows; \*\*\*: high, \*\*:medium, \*:low.

Hereinafter, the text is based on the suggestive result of monitoring and bitter experiences in the process of planning and implementing action projects along the popular perception. Especially, harmonious and functional relationship has been looked into among cooperative society as externally introduced leadership, community as gram, local government as Union or Thana, and the third party, namely JSRDE project as intervener.

### **Socioeconomic Characteristics of Panchkitta**

Panchkitta is typical of rural village in Comilla region. She belongs socio-economically to Comilla Sadar Thana but administratively to Burichang Thana. Her socioeconomic key indicators are briefly shown in Table 2.

**Table 2. Socio-economic Condition of Panchkitta**

Location 3km to major road* 3km to Union office 16km to Comilla town 28 km to Thana office	Education Facility. primary school in village Maktab in village High school in Union centre College in Union centre Literacy rate 34% for adults
Population & Households Total 1,813 persons 291 households Male 949 persons Female 864 persons Muslim 99%	Landholding (ownership) Landless 21 (7.2%) upto 2.50 acre 254 (87.3%) 2.51 to 5.0 acre 12(4.1%) More than 5.0 acre 4 (1.4%)
Occupation (households) Farming 40% Agricultural labour 18% Service 18% Business 9% Rickshaw 8% Day labour 6% Others 1%	Infrastructure Production : DTW and STW : membership of co-operative 204 households 136 male 80 female 177 children

Note\*: Dhaka-Chittagong road.

The majority are small farms. The arrangement of land tenure does not significantly relieve the disparity of land ownership; small farms occupy 71% of cultivable land, medium farms 20%, and large farms 9%. Green revolution has been brought about by DTW/STW and MVs has transformed cropping patterns. Land use and other inputs have been intensified by introducing MV Boro rice and vegetables. In the recent years, 20% of cultivated area are seasonally used for vegetable cultivation. Dissemination of MV paddy has taken place in around 100%.

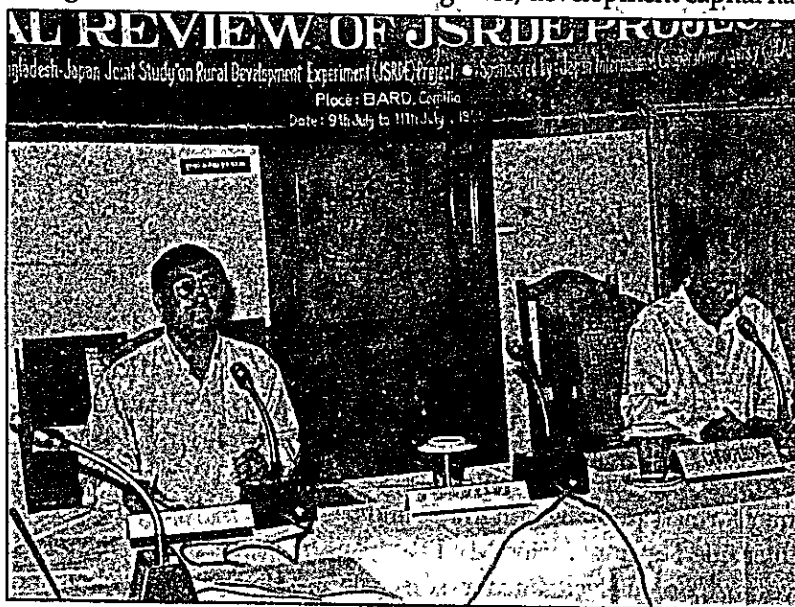
The Cooperative society was initiated in the early 1070s. With an experience of bankruptcy due to mismanagement and misuse of fund

and property<sup>3</sup>, KSS (Krishak Samabay Samity) was re-organized in 1975. Since then four other cooperative societies were established in response to Government policy; children cooperative society (1979), women cooperative society (1980), landless cooperative society (1980), and youth cooperative society (1980). In 1981, in accordance to a programme of BARD (Bangladesh Academy for Rural Development) these five cooperative societies were merged into CVDP (Comprehensive Village Development Programme) cooperative society. Afterwards the members of the CVDP cooperative society have been institutionally provided with training and credit.

### 3. Some Activities in Action Research

#### 3.1 Institution

In Panchkitta the CVDP cooperative society has been a main initiator of involving the villagers in development activities by either way of being individual and collective. At a glance, development capital has



*Dr. M. Solaiman, Director (Admn.) BARD, Comilla is seen to chair a business session and Mr. Mizanur Rahman, Assit. Director, BARD is seen to reply to query of participants on his village report on Panchkitta in the workshop on Final Review of the JSRDE project held from 9th to 11th July, 1995 at BARD, Comilla.*

<sup>3</sup> Being based on the interview with several informants.

been mostly introduced externally through Government programmes and NGO (Non-Governmental Organization) rather than internally through self-finance. Occasionally, the population and the cooperative society have improved intra-village social infrastructure such as Moktab, mosque, and school etc. by bearing the most portion of the cost by means of donation. Construction and repairing of roads linking to neighboring villages and the Union centre, digging and dredging old canals, and tree plantation beside roads etc. were implemented under Union or Thana development plans. Table 3 shows which institution/organization played a key role in each process like initiation, financing, implementation, and coordination/monitoring. It can be seen that the gram itself has a keen interest in development affairs. The CVDP cooperative society appears to be opinion leader enabling to encourage the population.

**Table 3. Role-Sharing in Development activities among Organizations**

Organization role	Cooperative society	Gram	Union/Than	NGO
Initiator	B. C*. D. E. F	A. C. D*. E*. F*. G		
Financing	B. C	A. C*. D E. F. G	E*	B*
Implementation	B	A. C. D. F. G.	B*	E*
Coordinator	B. C	A. C*. D. E.F.G.	B*	

- Note) 1) A: road construction, B: road re-construction  
 C: tree plantation, D: digging/dredging of old canals  
 E: repairing school buildings  
 F: building Moktab, G: building mosque.  
 2) \*: high involvement/participation

Regarding individual economic activities, members of the CVDP cooperative society have obtained such facilities as DTW (Deep

Tubewell) and rice mill which were installed by KTCCA (Kotwali Thana Central Cooperative Association) loan. In addition, such opportunity as credit for income generating activities like goat rearing, cattle fattening, poultry, craft making, fish culture, rickshaw pulling, and other petty businesses have benefitted them. The financial source was owned by KTCCA and other institutions. Some of non-members have also utilized those facilities and credit service of the CVDP cooperative society.

### 3.2 Leadership as Pre-condition

The population perceive that there are several types of leaders covering such aspects as religion, rural politics, youth, women, cooperative society, and society as gram. Their function is not necessarily specialized in certain aspects. Though cooperative leaders are in contrast to social leaders, called Matabbar, it is like being modern against traditional. As a matter of fact, the multiplicity of leadership can be seen among them to some extent (Table 4) and has resulted to reduce the possible conflict by taking social leaders into the cooperative society. Due to development activities over years cooperative leadership tends to surpass social leadership.

### 3.3 Forming a Village Committee

Organizing a receiving/coordinating body must be a key process to materialize latent energy. To observe the entity of organizations ranging from institution to group from the viewpoints of both width and depth of participation is suggestive to identify the quality of comprehensiveness. The village-level organizations in Panchkitta can be classified as below.

**Table 4. Classification of Village-level Organizations.**

Participation	Wide	VC (JSRDE) CVDP (BARD) KSS (BRDB)	Cohesion Loose
	Narrow	Target Groups (NGOs etc.)	Tight

The width can be measured by the number of members. The depth means the extent of cohesion of the organization. The more practical and clearer the objective/motivation is and the more informal the formation, the smaller is the organization as a group and the transaction cost. The voluntary cohesion, accordingly tends to be impropotional to both the width of participation and the institutionality.

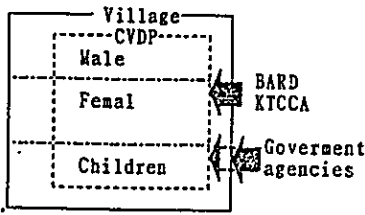
Whether or not the existing institutions must be re-structured depends primarily on the membership ratio of the CVDP cooperative society. In fact, 30% of all the households do not enroll themselves in the CVDP cooperative society due to such perception as unwillingness, lack of capability to make weekly savings, and fear of losing own savings.<sup>4</sup> It apparently results to be hard to expect 100% enrollment. Assuming that a community embraces the population and works as a social body of participation regardless of membership, so JSRDE project proposed to form a VC (Village Committee) as a representation of the community. It is kept in mind that VC is not hierarchically stronger than the CVDP cooperative society and wishes to harmoniously work together with the CVDP cooperative society. Functionally, the VC is a body to coordinate a variety of development affairs as well as action programmes of JSRDE project.

Furthermore, so as to control the monopoly of management by limited leaders and to provide more OJT (On the Job Training) like opportunities of cultivating leadership, JSRDE project has formed sub-committees to administer action projects sponsored by JSRDE project. The sub-committee is also a leading body to link with other institutions inside and outside Panchkitta. As a whole, the structural framework of relevant bodies toward rural development under JSRDE project in Panchkitta can be shown in Figure 1.

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<sup>4</sup> Being based on interviewing all non-member households.

Under CVDP programme



Under JSRDE

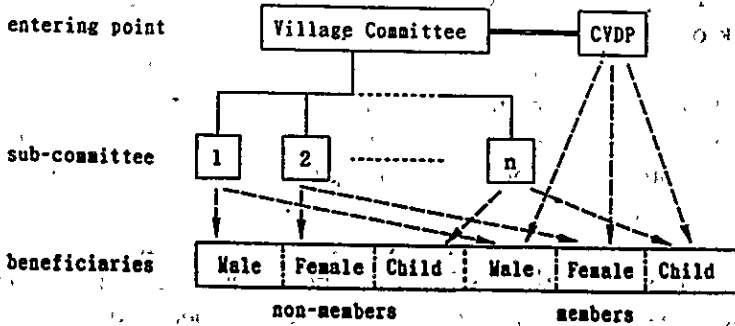


Figure 1. Operating Structure of Programmes in Panchkitta

### 3.4 CVDP Cooperative Society

A committee called "Managing Committee" comprising of 9 elected members manages the affairs of the CVDP cooperative society and is placed as an executive decision maker. Most of them are social leaders and youth leaders with different length of experiences in management in other organizations. As a principle Managing Committee meeting is held once every month. In the first three weeks of the month a meeting is held for male, female, and children members respectively, while the fourth week is reserved to hold a joint-meeting of all the categories of members. Along the 4 layer meetings the consensus can be formed on the basis of reviewing activities and subsequent decisions. However, the actual state of attendance shows the strong leadership of Managing Committee, in other words, their profound dependence on the limited leaders.



### 3.5 Village Committee

JSRDE project has a perception that Village Committee (VC) is a ring where all the population enter without considering membership. Even though all the households join the CVDP cooperative society, it cannot become the Village Committee because the rigidity of membership does not match the vagueness of gram community as foundation. However, as a matter of fact the VC has managed to be comprised of several leaders from both members and non-members of the CVD cooperative society through the positive intervention of JSRDE project. For instance, in the first response to the proposal of JSRDE project all the seven members of VC became members of the CVDP cooperative society. Afterwards, the members were reduced to five persons, namely three members and two non-members of the CVDP cooperative society. Despite that one member joined the CVDP cooperative society afterwards, the consequent imbalance of representativeness have not intentionally remedied yet.

The VC plays a role of filter between a village and the outer world. At the starting point it was proposed that the VC maintain and coordinate linkages with CVDP cooperative society, KTCCA, Union Parishad, nation building departments at the level of Union or Thana and other institutions. The VC members meet once every month to review activities of sub-committees and projects as a whole and maintains records and accounts in cooperation with the CVDP cooperative society. On the other hand, dominating leadership of the VC was undeniably seen in appointing members of sub-committee for action programmes, that was a duplication in membership. So as to maintain programmes, independence from the VC to some extent was tried as a primary intervention of JSRDE project the sub-committee comprised of one VC member and four beneficiaries. Subsequently, it was reformed by the structure of one VC member, two beneficiaries for the year, and two beneficiaries in the future through discussion. The VC is in charge of preparing a plan for undertaking development activities on the basis of popular needs. The proposal was discussed with JSRDE project with a limited budget.

## **4. Linkage with Outer Institutions**

### **4.1 Experiences under the CVDP Cooperative Society**

Before initiation of JSRDE activities at Panchkitta cooperative society played a vital role of linking the society members with outside institutions. In the union coordination meeting (UCM) of CVDP the Managing Committee proposed to reconstruct the old road and old canal, and to install culverts. In this way need based proposals have been made by the MC to the UCM.

It was observed that the Managing Committee took initiatives to establish linkage with BARD, KTCCA and other union level nation building departments as agriculture, livestock, public health, family planning, and cooperative department. But in most cases those were only for the members of the cooperative societies but in some cases for all villagers. It was also observed that all the union level officials visited only the society or performed their duties sitting in the society office without giving attention to all the households. So a gap between the service delivery system of union level government officials and non-members of the society existed.

### **4.2 Trials by JSRDE**

To minimize these gaps the Village Committee decided to attend Union Coordination Meeting with Managing Committee of CVDP to represent the whole community. But during the reporting period, all VC members attended in only one coordination meeting with Managing Committee of CVDP to represent the whole community. Due to non-cooperation of the Union Parishad Chairman, the coordination meeting could not be organized. In 1994, only three meetings and in 1995 only four meetings were held and most of the discussion were on road construction, tree plantation, canal digging and installation of culvert.

### **4.3 Training as a Mode of Network**

Members of the cooperative society attended different training courses provided by KTCCA, BARD and other nation building departments at Thana and Union level. But non-members had a very few chances to attend any training course offered by those institutions.

The manager, his society being a member of KTCCA, used to participate in the weekly training course offered by the KTCCA. This is a regular practice with pre-selected topics. Payments of daily allowances for this kind of training courses are the routine works of KTCCA. Any manager of the member society may or may not attend the training courses. On the other hand, CVDP design and organise some skill development, management and job oriented training courses in order to fulfill the needs of the project proposal of the programme. These courses are designed by the officials of CVDP and resource persons. After designing the training programme dates are fixed and invitation are extended to the village societies under CVDP to send their members to attend this training course. The participants also get TA and DA or honorarium for attending the course. However, it has been observed that during planning and designing the courses the participants have no say, so their needs in those courses may or may not be fulfilled and some time no course is organised according to the demand of the participants, because it depends upon the provision of the project proposal. So it can be said that in all the courses organised by the KTCCA and CVDP, the society members have no role to play during planning and designing and the villagers are not aware of how to plan design, implement and evaluate a training course. To minimise these gaps JSRDE project introduced new types of approaches which is called "bottom up training planning" instead of existing "top down training planning". In this process during implementation of projects the beneficiaries faced different problems. For example, after providing she-goats to the beneficiaries they found some of the goats infected by disease, some goats did not take food and some did not conceive. In the sub-committee meeting, beneficiaries informed their problems and all the members after discussion came to consensus for organising a training course on the solutions of the respective problems. At the same time some other related topics such as housing, feeding, calve rearing and nursing etc. were also discussed as common issues. Sub-committee then discussed the matter with Village Committee. Village Committee and sub-committee jointly proposed to JSRDE project to organise a training course. With the help of District and Thana Livestock office, this training course was organised. In this process of planning, its demand came from the bottom and in it people's participation in every aspect

was high. Other training courses on milch cow rearing and paddy-cum-fish culture project, planning and implementation procedure of training were the same.

But in this type of bottom up planning of training and its implementation procedure a lot of problems were observed, as (i) beneficiaries cannot select topics, (ii) sub-committee cannot individually decide, plan and finalise the training programme, (iii) Village Committee cannot organise the course independently, (iv) beneficiaries cannot make any contact with the officials for organising training course, (v) JSRDE project had to intervene in the preparation of the programme and contact the officials as trainers.

It was observed that when the Village Committee and the sub-committee were informed to contact the officials at first they hesitated to meet those officials as they thought that they had no access to those office. So JSRDE project had to intervene first and then convenors of Village Committee and respective sub-committees visited those office for training arrangement.

In this training process, JSRDE project provided honorarium to the resource persons but no facilities to the beneficiaries as those were provided by the KTCCA and CVDP. Other important feature of these courses were that the trainees made a token contribution as training fees before organising the course. These fees were spent by the convener of VC and sub-committees as transport cost to communicate with the resource persons and refreshment during the courses. All the courses were organised in the village, not in any office of respective departments.

#### **4.4 Impact of the Training**

It is very difficult to evaluate the impact of training before completion of the project, but it is true that the villagers became aware of their real needs. They demanded to organise training course to the sub-committee members to solve some specific problems related to the projects.

Considering the bottom up planning of training it is true that beneficiaries of the projects participate in very primary planning stage focussing their primary needs. This was not done previously. In the

second stage of planning Village Committee, sub-committee and JSRDE project jointly prepared the draft programme, which was also a kind of sharing responsibility to prepare a draft plan by the committee members which had never been done by the Managing Committee member of CVD cooperative society. In the last stage, after organisation of training courses held at the village level, some individual villagers directly contacted the respective Government officials for solving their problems. Such kind of linkage was established between some beneficiaries and nation building departments. But this kind of linkage can help only beneficiaries but not all the villagers. In order to make a wider linkage between the villagers and the nation building departments, the individual will need to propose to sub-committee to communicate with those departments and the sub-committees would try to establish such kind of wide linkage through experimenting different projects at Panchkitta.

## **5. Farming Technology**

### **5.1 Powertiller**

The DTW under the cooperative and four private STWs provide scope for irrigation. The irrigation technology has revolutionised agriculture in the village. Total coverage is 119 acres in Boro rice and 20 acres in vegetable cultivation. Switching on to Boro rice has provided scope to cultivate Aus rice in between Boro and Aman seasons. This necessitates preparation of land within a short time. Besides, Panchkitta farmers are cultivating vegetables in some other plots throughout the year without keeping the land idle. Now the cropping intensity is 254%. For plantation of crop one after another mechanical ploughing of land saves time. Many small farmers and landless sharecroppers of the village do not have bullock power and they find it uneconomic to maintain a pair of bullock. They thus hire bullocks from the large farmers which is generally available only at the later part of the season. Again, bullock ploughing is costlier than mechanical ploughing. The VC of Panchkitta thus requested the JSRDE project to provide a power-tiller. A power-tiller was thus provided in December, 1993.

A seven-member power tiller sub-committee was formed. It meets regularly in every month to review the use of power tiller. It also maintains records and accounts. Two operators have been trained to operate the power tiller. The operator gets a share out of the gross income of the power tiller as his wage. Upto June 1994 its use has been recorded as 51, 37, 21, 97 acres respectively under Boro rice (93), Aus rice (93), Aman rice (93), and Rabi crops (94). The demand for use of power tiller is increasing gradually. Households having bullock power do not hire the power tiller. Besides, in each season some households hire tractor for land preparation without waiting for the power tiller.

All classes of households especially the landless sharecroppers and small farmers hire the power tiller. Some people from the neighbouring villages also hire it. There is a decreasing trend in hiring bullock for land preparation because of high rate and also limited supply of bullock power in the village. With simple modification, the engine of the power tiller is also used for surface water irrigation and for dewatering of ponds. In 1993 four ponds were dewatered with this engine. The Village Committee and the power tiller committee are now planning to purchase a new power tiller out of the income to meet the growing needs of farmers. Net income from the power tiller was Tk. 9456.60 up to June 1994.

## 5.2 Fish-cum-paddy cultivation

Rice- fish culture programme have been started in the village. A small shallow ditch has been dug in one portion of a bigger paddy plot and the boundary 'ail' of the plot which is raised upto level so that fish cannot go out of the plot during the rainy season. The fish is rearing both in the small ditch as in the paddy field. A five-member committee has been constituted in January 1994 JSRDE project provided a fund as grant for digging the ditch, raising the boundary 'ail', fish feed and fingerlings. The VC distributed this fund to nine farmers as credit who would repay the amount with 7.50% interest in three years. First instalment of the credit was repaid in September 1994. Nine farmers started fish culture in nine plots. A training course was organised for the villagers about fish culture with the

assistance of the Thana Fishery Officer. Training, motivation and demonstration effect of this project encouraged many of the villagers to cultivate fish in their rice fields in future.

### 5.3 Nursery

Cooperative society produced tree saplings, seedlings, and seeds for its members and provide those at a cheaper rate. During 1992-95 gross income from nursery project was Tk. 1720.

## 6. Off Farm Activities

### 6.1 Credit Operation

Capital is one of the most essential input for production in on-farm and off-farm activities. Own capital being scarce, a variety of credit become supplementarily important sources of capital. Except for private money lenders, the CVDP cooperative society at the village level and commercial banks at the Union/Thana level supply formal credit for the population. The CVDP cooperative society has extended credit service to some of landless or assetless non-members. However, it appears to be reality that informal credits have been utilized much and that not a few households have involuntarily utilized loans of commercial banks, which would impose invisible costs to debtors due to lack of capital of the CVDP cooperative society.

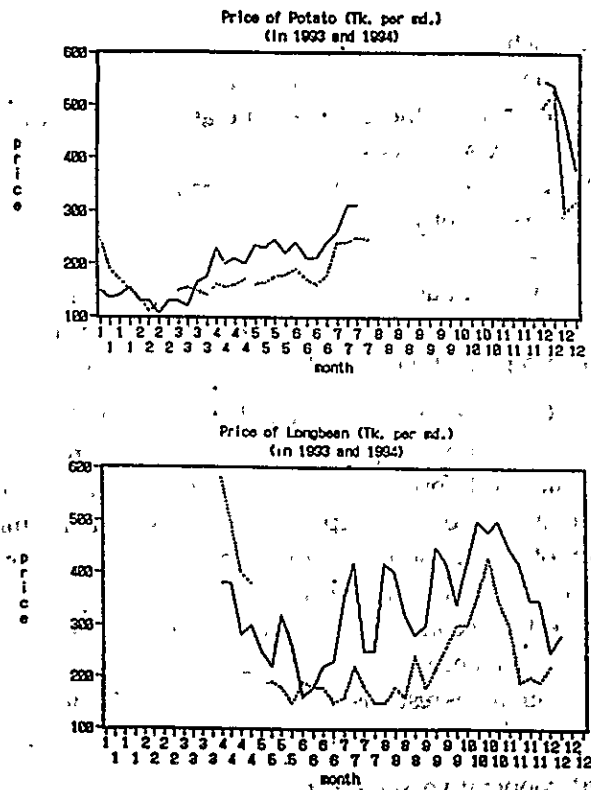
Loans of the CVDP cooperative society have been made available by loans from KTCCA, revolving fund (or seed money) introduced by the CIPS (Community Information and Planning System) project, and profits generated by own enterprises like DTW and rice mill. The contribution of savings and share of the members is not major. The members would individually apply to the society, describing his/her need to invest in economic activities. Through verifying their accountability, the managing committee approves and provides relevant loans. The committee is responsible for encouraging debtors to pay due installments regularly. It consequently ensures the collection of loans.

The CVDP cooperative society thus has enough experiences in multiplying capitals by way of loans. JSRDE project presumes firstly that the VC would utilize a certain amount of development fund as loans. Activities embodied by those loans must be opportunities for

trying new linkages as mentioned above as well as coordinating interests among the population regardless of the CVDP cooperative society membership. The second task appears to be how the VC utilize, namely return the consequent profits of interests to the gram/population rather than increase the beneficiaries of loans. In other words, infrastructural improvements were planned/tried to facilitate by the use of development fund considering complementary financial contribution of the population.

## 6.2 Joint Vegetable Marketing

A suggestive fluctuation of price in terms of month as well as year is seen in Figure 2.



Source: Field survey.

Figure 2. Price Fluctuation of Potato and Longbean at Local Wholesale Market (at Kala Kachau, Comilla)



The similar trend can be identified in other vegetables. It implies that several devices can create chances of profitable business. For instance, earlier shipping could ensure much profitable price. How to bear the consequent higher risk in production and fixing a price, however, is a task to solve. Joint-marketing of vegetables, therefore, was proposed by JSRDE project rather than the VC on a comprehensive experimental basis for the purpose of (1) gaining higher sale-price by better bargaining power induced by scale economy, (2) returning a marketing margin which would be gained by middleman or local wholesaler to producers, (3) bringing up a village-level entrepreneurial body which would establish a linkage with the urban markets and consequently (4) diversifying cropping patterns to ensure higher sale-price.

The reality suggests a limited bargaining power of the scale economy. An earlier harvesting and shipping prior to the peak season results in ensuring higher price. However, the complementary factor to enable the sustainable marketing was not arranged inspite of intensive discussion and motivation. That is, pooling of price and risk fund which compensates a loss at the time when market price is lower than the production cost were placed beyond the consideration because of their deviated interest to profit sharing only. The items (2) and (3) are complementary to each other. Despite JSRDE's plan that some of the development fund could be alternatively used as the risk fund for a while with using a loan from the development fund as working capital for buying vegetables, two villagers have established vegetable business by collecting vegetables from neighboring villages as well as Panchkitta. To be unfortunate, except that the two merchants directly ship to and transact vegetables at major urban centres like Dhaka and Chittagong, there is no difference from the prevailing others in terms of marketing channels and manners: As to the item (4), it is a resultant reaction to the market. JSRDE project conceives as follows. The locally established two vegetable merchants collect the demand information of market and negotiate the condition to gain better price with wholesalers of urban centres. So as to encourage the two merchants to negotiate well, the VC tries to grasp the vegetable supply for the year ensured by the present cropping schedule, (table 5) covering neighboring villages. Then, the cropping patterns could be modified in accordance with the market demand

**Table -5: Kind of Marketed Vegetable and Its Number of Farms by Month (in Panchkitta. 1993 crop year)**

Magh	Falgun	Chatro	Baishakh
Potato (29)	Potato (213)	Long Bean (41)	Long Bean (25)
Pumpkin (4)	Tomato (9)	Pumpkin (11)	Cucumber (9)
Cabbage (4)	Eggplant (8)	Eggplant (6)	Snake Gourd (8)
Long Bean (1)	Pumpkin (7)	Chilli (5)	Bitter Gourd (4)
Tomato (1)	Chilli (5)	Tomato (5)	Eggplant (2)
Mustard (1)	Long Bean (3)	Sweet Potato (4)	Chili (2)
		Sweet Pumpkin (4)	Potato (1)
		White Gourd (3)	
		Snake Gourd (2)	
		Potato (1)	
		Melon (1)	
Jaysto	Ashar	Sharabon	Vadro
Long Bean (52)	Long Bean (37)	Long Bean (22)	Long Bean (19)
Bitter Gourd (17)	Snake Gourd (17)	Bitter Gourd (6)	Bitter Gourd (8)
Snake Gourd (6)	Bitter Gourd (15)	Cucumber (6)	Snake Gourd (3)
Cucumber (6)	Eggplant (7)	Snake Gourd (5)	Eggplant (1)
Eggplant (2)	Cucumber (7)	Kakrol (1)	Raddish (1)
Pumpkin (1)	White Pumpkin (1)	White Pumpkin (1)	Pumpkin (1)
White Pumpkin (1)	Ladies Fingure (1)	Arum (1)	Cucumber (1)
	Kakral (1)		Ribbed Gourd (1)
Ashin	Kartic	Agrahayan	Pous
Long Bean (24)	Long Bean (20)	Cabbage (3)	Potato (85)
Bitter Gourd (10)	Bitter Gourd (9)	Lalshak (2)	Cabbage (18)
Snake Gourd (7)	Lalshak (8)	Bitter Gourd (2)	Raddish (7)
Cucumber (6)	Cucumber (5)	Raddish (2)	Eggplant (3)
Lalshak (6)	Snake Gourd (4)	Potato (1)	Pumpkin (3)
Pumpkin (2)	Potato (4)	Pea (1)	Bitter Gourd (2)
Tomato (2)	Arum (1)	Eggplant (1)	Cucumber (2)
Eggplant (2)	Chilli (1)	Snake Gourd (10)	Lalshak (2)
	Tomato (1)	Long Bean (1)	Sweet Pumpkin (1)
			Long Bean (1)
			Cauliflower (1)

and the consequent production adjustment could be brought about along the better condition of transaction achieved by the two vegetable merchants. In addition with the purpose of the potential test and motivation several demonstration plots of cropping patterns have been introduced in cooperation with the concerned block supervisor of the Department of Agricultural Extension. table- 6

Table -6 : Volume of Vegetables Marketed by Farmers (Panchkitta in 1991, 1992)

Crop season	Aman	Rabi	Boro	Aus
Kind (unit)	(1991)	(1991)	(1992)	(1992)
Potato (md.)	1,002.45	6,545	308	n a
Cabbage (piece)	29,375	3,000+15md	n.a.	n.a.
Raddish (md)	153.2	28	n.a.	n.a.
Bitter gourd (md)	45.2	189.25	346.75	300.25
Lalshak (md)	84	n.a.	n.a.	n.a.
Long bean (md)	59.75	325.5	1,330	712
Cauliflower (piece)	12,650	n.a.	n.a.	n.a.
Pumpkin (piece)	1,715	3,460	250+20md	2,160
Eggplant (md)	18	62.95	109.25	33
Snake gourd (md)	8.25	95.25	274	233.2
White pumpkin (piece)	280	350	815	855
Datashak (md)	39	399.75	n.a.	14.5
Red leaf vegetable (md)	11.5	n.a.	n.a.	n.a.
Chilli (md)	3	34	7.5	n.a.
Tomato (md)	n.a.	18.5	14	15
Cucumber (md)	n.a.	77	376.5	195.5
Kakral (md)	n.a.	4	n.a.	29
Melon (piece)	n.a.	n.a.	160	n.a.
Sweet pumpkin (piece)	n.a.	n.a.	n.a.	1,420

Note: n.a. =Not available.

### 6.3 Goat-rearing

The objective of the programme is to provide she-goat to the landless household the price of which is to be repaid by the allottee in 15 monthly installments along with 7.50% interest. This amount will be used for providing she goat or she calves to more households. By January 1993, 40 she goats have been purchased for distributing among 40 households. JSRDE project provided Tk. 25,000 as revolving grant.

Froty goats were distributed to the landless, and distressed households identified by the goat rearing sub-committee of VC. This sub-committee remains responsible for supervision and distribution of goats to other households in future. The goats gave birth to 45 kids upto June, 1994. Tk. 12,826 was repaid by the beneficiaries. The amount is deposited to a local commercial bank by VC. Each allottee contributed Tk. 2/- with each instalment for formation of a risk fund. This fund will be provided to the allottee in case of death of the allotted she-goat. The VC is planning to reinvest collected money to the other villagers in future in the form of she-goat and she-calf.

A two-days' training course was organised for the allottees about primary health care of calves and goats, house, feed and different aspects of goat rearing, with the assistance of the Scientific Officer, Artificial Insemination Centre and District Livestock Office, Comilla. Forty beneficiaries attended the course. After the training course it was observed that most of the beneficiaries were motivated in adopting new knowledge of stall-feeding, house cleaning and taking services from Government Veterinary Department.



*Goats are being distributed to the beneficiaries at Panchkitta, Comilla under goat rearing programme.*

#### 6.4 Milch-cow rearing

Original plan of VC was to procure a total of five milch cow with project fund and distribute them to the villagers as credit in kind for income generation. After much discussion the plan was revised and 15 calves were procured and distributed to the beneficiaries as loan in kind. It is an on-going activity. The results are yet to be seen.

**Table 7. Action Programmes, Cost and Beneficiaries\***

Name of the Programmes	Total cost (Tk)	Total beneficiaries (No)	Cooperative		Farmer Categories			
			Member	Nonmember	Large	Medium	Small	Land
Power tiller Programmes	62,656	Total=252 Panchkitta= 142 Outside = 110			NA	NA	NA	NA
Goat rearing Programmes	25,000	40	21	19		17	8	15
Fish-cum paddy Programmes	31,590	9	7	2	2	5	2	-
Milchcow rearing Programmes	60,000	13	9	4		4	8	1
Quality seed Programme	8,000	8	6	2	1	5	2	-
Joint Marketing Programme	20,000	2	2		1	1		
<b>Total</b>	<b>2,07,246</b>	<b>72</b>	<b>45</b>	<b>324</b>	<b>4</b>	<b>32</b>	<b>20</b>	<b>16</b>

\*For Further information appendix can be seen

### 7. Some Lessons from Action Projects

#### 7.1 Reassessment of Institution

JSRDE project has managed to form a VC that represents a gram of Panchkitta by embracing all such subjects as group body, and institution as well as villagers as individuals, after experiencing resistance of the CVDP cooperative society regarding inclusion of a few representatives from non-members in the VC. Their

emotional conflict appears to be based on the confidence cultivated through development activities so far by the name of cooperative society. Eventually the VC has resulted in a committee that comprises three functionaries from the CVDP cooperative society and two functionaries from others. The similar problem also arose at the time of proposing a sub-committee under the VC. The concerned members were firstly the CVDP managing committee members and the VC members even with a few duplication. It is feared that whatever is the name of a committee, membership remains within a few people and they hold the decision making authority. Therefore, JSRDE project intervened and restructured, for example, a sub-committee by comprising one VC member, two beneficiaries, and two non-beneficiaries, after tough negotiation with the CVDP cooperative society.

Lessons we learnt through implementing the VC in Panchkitta could be summarized as below:

- (a) An appropriate organization/body in a village may not always represent a *gram* community. The farmer sometimes weakens the solidarity of *gram*. It would be best that the *gram* community itself would be a comprehensive organization. But it can not be expected due to it being inexperienced. If being perceived a kind of organization, the *gram* community must be flexible enough to embrace any other organization and groups that exist in the village.
- (b) Institution when built is often authorized by the relevant Governmental body. It has resulted in a limited unilateral access to a certain organization or group. What is the worse, due to easy excess, almost all the departmental field staff utilize the institution only. It has caused the evil of deviation in various aspects. A *gram* of popular participatory community, therefore, should be institutionalized with a trusted leadership of VC which is designated to act as a bilateral coordination body of village affairs.

(c) For outside world the VC is an entrance door to the *gram* community, and for the villagers the VC is an exit to encounter the outside world. The VC as a ring will be given an authority to contact the outside world when it is institutionalized. The VC should better be trusted so that even when certain organizations or groups are approached by external agencies, the received information/resources could be fed back to the VC with a popular authority rather than an externally given authority.

## 7.2 Credit as Self-reliance

In Panchkitta, credit (loan) services are operated using fund made available from both internal and external sources. The fund must be perceived as a common trust fund or a development fund for the *gram*. The related management and supervision works are better to be committed to the *gram* to some extent. Unlike loan programmes of commercial banks, the interests generated by operating loans to the villagers can be circulated back within the village at an interval of certain years. For instance, they can be utilized for improving small rural infrastructures of common concern/interest along intra- and inter-village coordination. They are however, supplementary resources and the development budget of local Government must be firstly ensured by the tax revenue and play a role of motivation. What is important is an actual feeling that such resource as tax and interests paid by villagers are returned to their living needs. This may be justified by several realities.

- (a) By empirical principle and for risk averting the larger credit goes to the rich and the smaller to the poor. This has enlarged economic disparity between the two classes.
- (b) It is not easy to avoid without reserve keeping the interests of loans inside the village. The entity of a organization that takes care of loan operation with low interest capital is important.
- (c) The widened disparity could be compensated to a certain extent by investing the interests in such public goods as

infrastructure while loan beneficiaries are increased by way of capital increment.

#### 8. Conclusion

Experiences of JSRDE project in Panchkitta show that Village Committee is a key institution of village community. It flexibly coordinates and involves the population in development activities and also maintaining linkages with nation building departments at the Union level as much as possible. As far as being accompanied by a certain authority, groups and organization established by name of institution building had better be conceived to be under the umbrella of a *gram* community. Not cooperative society but *gram* as a community is the first entity. The latter is not necessarily lying on concentric circles of cooperative society. Under the prevailing rural atmosphere there is a tendency that the cooperative society only has premature and ironically surpassed *gram* community. So that the VC could qualitatively catch up with a community, the available information and resources must be commonly shared through the VC as a convergent node, presuming the restructure of linkages between *gram* and Union at least. The VC itself, furthermore, is required to keep in mind the importance of experiences in managing the common interest such as infrastructure and trust fund. In order to remove a hindrance of becoming a leader, it is important that the trust fund generates profits through loans and ensures reasonable management of the VC.

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**Appendix: Outline of Action programme in Panchkitta**

Project and its budget (Tk.)	Beneficiaries and its breakdown (persons)						
	Cooperative society			landholding			
	total	member	non-member	large	medium	small	handless
Power tiller (62,656)	252*						
Goat (25,000)	40	21	19	0	17	8	15
Fish-cum-paddy (31,590)	9	7	2	2	5	2	0
Mich (60,000)	13	9	4	0	4	8	1
Seed/nursery (8,000)	8	6	2	1	5	2	0
Joint-marketing (20,000)	2	2	0	1	1	0	0
<b>Total (207,246)</b>	<b>324</b>	<b>45</b>	<b>27</b>	<b>4</b>	<b>32</b>	<b>20</b>	<b>16</b>

Note \*: including 110 beneficiaries of neighboring villages.

# Experiments at Austodona Towards a Model for Rural Development in Bangladesh

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Md. Mazharul Islam\*\*\*

## 1. Introduction

Immediate economic gain is one of the core desires of the villagers in Bangladesh, as they have diversified needs, most of which are not fulfilled as expected through many efforts for rural development implemented so far.

The people of Austodona are not exception to that. They had a long desire of sinking DTW for winter crop cultivation as there was no other device to bring out water from underground<sup>1</sup> to irrigate their winter crops. From our experiments it reveals that DTW was not the acute need of the villagers. In spite of that test boring of DTW was done from the project to find out the feasibility of the DTW in that village.

The positive result of test boring created the eagerness of the villagers to install a DTW with financial assistance from the JSRDE project. However, due to a limitation of the project budget, the installation could not be materialized. Then as the alternative needs in farming of villagers without DTW, that was the change of cropping sequences was emerged as a hidden need of villagers which let the villagers cool down the fever for DTW.

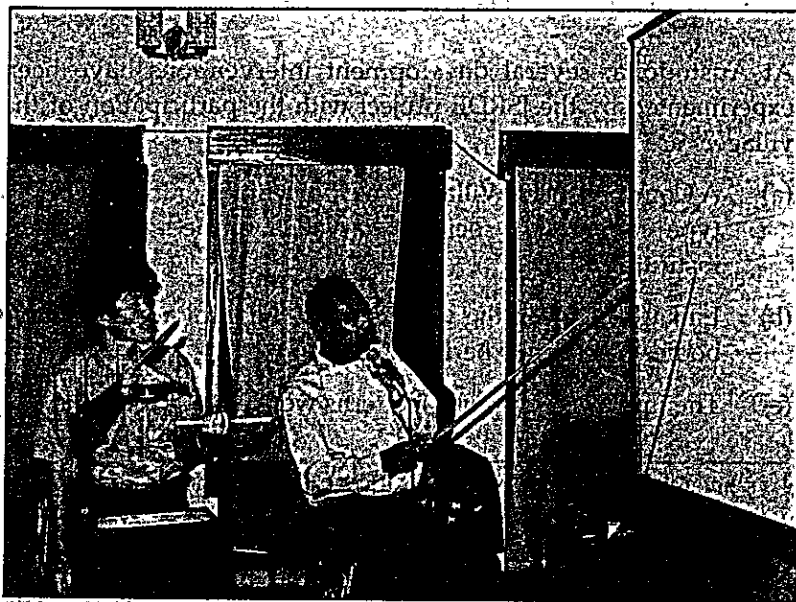
At present, strong demand for DTW is not found any more among the villagers. Why the villagers had earnest demand for DTW then. Perhaps, the expectation or the assumption that the JSRDE project would assist the finance of DTW installation created the desires for DTW in the village.

<sup>1</sup> There is no scope for surface water irrigation at Austodona.

\* JICA, \*\* BARD, \*\*\* BRDB.

We wonder if the project would have financed DTW installation, we could fail to identify that the hidden need of improving cropping pattern which is one of the real needs<sup>2</sup> of villagers.

This episode helps us to understand that economically oriented programmes with easy financial assistance to the beneficiaries tend to hide the latent but real needs and effects feasible in a village. At first, needs should be identified with the assumption that there is no external fund available and the programmes are to be planned in such a way that the villagers can carry out by themselves. It is very important for rural development planners and practitioners to identify every piece of dormant resources such as human, technologies and materials in a village first of all, then to mobilize those resources for development. For sustainable development, incentives through easy financial assistance from external resources should be put aside or last.



Mr. Kichiji Yajima, Long-Term JICA expert, JSRDE project and Mr. Swapan Kumar Dasgupta, BARD, Comilla are jointly presenting the village report on Anstodona, Comilla in the Workshop on Final Review of the JSRDE project held from 9th to 11th July, 1995 at BARD.

<sup>2</sup> Here, real need is the need which the villagers can meet by themselves financially and managerially. In this sense, the demand for DTW was not a 'real' need because of financial and managerial inability of the villagers at that time. This demand may turn into real need in future.

The village has a good road linkage but in respect to Bariura Thana centre it is a remote village for any contact with the thana level offices. Comilla-Chandpur highway passes by the southern side of Austodona. A feeder road links the village with the highway.

In the past there was no mentionable development effort at Austodona by any of the Government organizations (GOs) or non-government organizations (NGOs). Austodona was one of the less developed villages in Comilla district.

So far, villagers themselves initiated several efforts at different times, to set up village organizations like Youth Welfare Society, Cooperative Society<sup>3</sup>, Village Society, etc. for the development of the village. But none of those could sustain because of managerial inefficiency and lack of support from GOs or NGOs. Dormant desire for development of the villagers has been resumed with the initiation of the JSRDE project activities.

At Austodona, several development interventions have been experimented by the JSRDE project with the participation of the villagers are as follows :

- (a) A Comprehensive Village Development Programme (CVDP) type cooperative society<sup>4</sup> has been formed as a village institution.
- (b) Linkage between the villagers and the local administrative bodies has been experimented.
- (c) The improved cropping patterns were introduced.

<sup>3</sup> In Austodona, a farmers' cooperative, which failed because of mismanagement by the then manager, was informally formed in early 1980's.

<sup>4</sup> CVDP has been implemented by GOB (BARD and RDA) with the aim of total village development [Obaidullah :1993]. However, actual operation of the cooperative at Austodona is much different from the original CVDP type cooperative. Although, the cooperative was registered as an Austodona Comprehensive Village Development Cooperative Society Ltd., this name has been amended later as Austodona Village Development Cooperative Society Ltd.

- (d) A mutual financing association<sup>5</sup> has been emerged through experience of the cooperative.

This report aimed to analyse the experiences of four interventions mentioned above leading to a model for rural development in Bangladesh.

## 2. Four Basic Approaches

### 2.1 Institution

According to motivation by the JSRDE Project, a cooperative has been formed as the village institution at Austodona for development and registered by the TNO office in Barura as a CVDP type of cooperative. In the context of Bangladesh, development oriented institutions are usually formed on the basis of consciousness of the class or functional groups<sup>6</sup>. Such institutions cover only part of the villagers and excludes other villagers from the development activities. For example, poor farmers and resource poor female or male are the target of BRDB cooperative approach<sup>7</sup> and NGO informal groups approach<sup>8</sup> respectively in a society where the rich and the poor are neighbours. BRDB and NGOs both control decision making regarding to resource allocation and use for development.

On the other hand, the cooperative of Austodona covers people from all the strata of the village. Its membership remains open to all, both male and female, rich, poor and landless, and adults and children<sup>9</sup>. It can be said that the Austodona cooperative adopted

<sup>5</sup> A mutual financing association is not a separate institution at present but it accumulates share and savings deposit of the members and disburses that money among the members again as credit within the preview of the cooperative. It is hoped that if it succeeds and expands in the future it may turn into a mutual financing association.

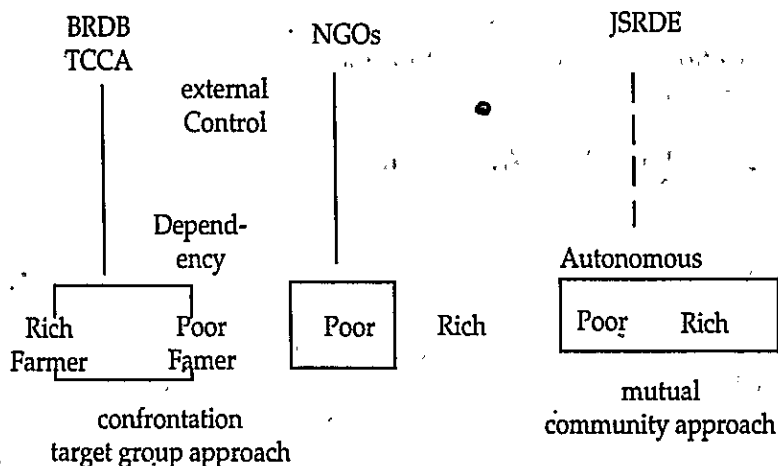
<sup>6</sup> Functional groups are occupation-based, problem-based, purpose-based and so on.

<sup>7</sup> Two-tier cooperative system (innovated by BARD), one at the village level (KSS, MBSS and BSS) and the other at the thana level (TCCA as Federating body)

<sup>8</sup> Female and male groups formed by NGOs in the rural area attributing no legal status to the groups are termed as informal groups.

<sup>9</sup> As a rule, membership is open to all in the village. But, the ex-chairman of the defunct cooperative is not allowed to be a member because of the mismanagement.

the community development approach<sup>10</sup> (Figure-1). Further, Austodona cooperative acquired the authority of decision making



In a village the rich and the poor are neighbours.

Figure-1. Formation of Institution of BRDB, NGOs and JSRDE

regarding resource allocation and use has become autonomous<sup>11</sup> in conducting activities because of free from dependency on the external capital (Table-1).

Table-1. Comparison between BRDB-KSS and Austodona JSRDE Cooperative

Indicators	BRDB-KSS	Austodona JSRDE Cooperative
Average Coverage of Households	35	73(96 %)
Average Number of Members	35	139
Cash Capital	-	Tk. 1385
Formation per Household		
Dependency on External Credit	All	Nil

<sup>10</sup> The approach that addresses total development of a community and all of its members may be termed as the community approach.

<sup>11</sup> As the cooperative of Austodona has no lower, upper, vertical or horizontal tier, it is independent in decision making process on its activities and hence it is autonomous in nature.

## Activities of Austodona CVDP Cooperative

The JSRDE Project has expected that through the CVDP cooperative rural development in terms of economic, social and common interest programmes would be implemented in the village.

In spite of the expectation of the JSRDE project, from the very beginning the objective of cooperative's interest has been to look into the benefit of economic activities and operation of own business. The expectation of having a DTW from the GOB subsidy pulled the villagers in a cooperative as members. The cooperative has been operating several small programmes such as small credit, rickshaw loan, poultry and land mortgage by the own capital of the cooperative, that is share and savings of the members, etc.

Weekly meetings are held regularly with the attendance of the members on every Saturday evening. Share and savings are collected every week. Managing committee (MC) meeting is held when required.

In order to improve the situation of the cooperative, management training of MC members of the cooperative and a few business oriented programmes have been implemented with the financial assistance of the JSRDE project.<sup>12</sup>

However, in a sense it is not too much to say that most of the cooperative business have shown some problems and failed to attain the expected results.

The training for cooperative management has hardly shown any improvement of the management because of lack of interest among the members to manage the cooperative better.

Management of power-tiller, fish culture and other joint business have never been practised in the village community and so faced problems of mismanagement.

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<sup>12</sup> Nine members of the managing committee were given a cooperative management training at BARD. Pond fish culture was demonstrated with collaboration with Thana Fishery Department, Barura, and a power tiller has been lent to the cooperative to strengthen the foundation of the cooperative.

Only small credit which is common practice in the village society for individual's income generation from the own resources of the cooperative has shown better management and loan realization by the cooperative.

Almost all households (96%) of Austodona have become members of the cooperative. However, attention of members and activities of cooperative have been centered on benefit oriented economic activities. Programmes of social development and common interests have never been taken care of with much importance and implemented through activities of the cooperative.

To add to its economic activities, the cooperative is involved in the JSRDE project linkage programme<sup>13</sup> and it maintains information and service linkage with union parishad (UP), Nation Building Departments (NBDs) and NGOs of Union and Thana level. The cooperative collects development information and disseminates to the villagers with assistance of the JSRDE project.

From the experience of Austodona cooperative, the results of JSRDE implementation may be understood by following points:

- (a) It is obvious that some customs or norms in the village pushed all the households to join the cooperative. Only economic interest is not enough to motivate the villagers to join the cooperative.
- (b) In the field of economic activities there are a few people who work for the interest of others. Therefore, joint business directly operated by cooperative could not work well, because of inherent weakness of joint business like lack of sense of responsibility and management skill of manager and mismanagement by the cooperative in other way. In addition, business of cooperative is often confronted with interest of individual entrepreneurship among the members.

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<sup>13</sup> 'linkage' programme is aimed to link up vertically and horizontally between the local administrative bodies and the villages for coordination and information dissemination.



- (c) Under the cooperative sponsored by GOB, existing complicated system hinders the growth of cooperatives in many cases and close-door accounts system often causes mismanagement and embezzlement of the fund of cooperative. In order to avoid these problems, simple management system and open information of accounts have been pursued at Ajustodona.
- (d) Since the village institution was formed as a cooperative, economic activities have dominated the objective of the cooperative activities. The cooperative covered almost all households. However, common interest could not be geared up. Problem was that every activity so far tried has become economic interest of individual and no attempt to identify common interests has ever been made in the village.
- (e) A mutual financing association emerged from the operation of the small savings and credit programme implemented by the cooperative may show the possible way of sustainability of the cooperative. It may show the way to innovate existing cooperative into mutual financing association because traditional credit system, that is usurers still exists in rural area [Maloney :1988].

At present, to ensure better management, the cooperative practices some new regulations which have been learnt through the experience of the project, are as follows:

- (a) Just one resident member per household is eligible to be the decision making member of the cooperative. But anybody may be incorporated as the shareholder and savings member of the cooperative. It has been done though amendment of bylaw of the cooperative.
- (b) The cooperative does not borrow money from the external resource for the economic activities both for the individual and the cooperative itself. It operates credit out of its own fund.
- (c) The cooperative will not be directly involved in own joint-business establishment but facilitate and support individual's

business establishment for investment, employment and income generation.

- (d) The cooperative is to support economic activities of members who is a resident of Austodona.
- (e) To avoid conflict and grouping in the community the cooperative does not follow any election method to select the MC members. Selection should be well discussed among the villagers.

### **Future Prospect of the Austodona cooperative**

The cooperative has already covered 96 % of households of Austodona. Apparently, it seems that the cooperative has become a community institution of Austodona. But their participation for the community development activity and even for the activities of the cooperative has remained very low. It seems that villagers have not yet understood the objective of community development.

The question that is faced whether the cooperative can play the role of a village institution for total development, not only the economic activities but also for social activities of common interest.

To avoid the confusion and misunderstanding among the villagers, functions and works of the cooperative should be simplified and clarified so that the villagers can manage and maintain the cooperative well and ensure its sustainability.

### **2.2 Linkage between villagers and the Local Administration<sup>14</sup>**

In rural Bangladesh many villagers have been suffering from poverty not only of 'economic poverty' but also of 'information poverty' [Zijp : 3]. 'Linkage'<sup>15</sup> and coordination among the local

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<sup>14</sup> In this report, local administration means administrative function of NBDs both at union level and thana level and union parishad.

<sup>15</sup> 'linkage' between local people and the Local Administration consists of several sectors, such as infrastructure, income generation, improvement of living condition and relief in rural area. Infrastructures are both construction and maintenance of roads, canals, schools, hospitals, markets and so on. Income generation includes technology transfer, extension of improved varieties, training and loan disbursement. Improvement of living condition consists of health and hygiene, family planning, education and so on

administrative units both horizontally and vertically are almost missing and invisible to the villagers at union level. Therefore, most of the villagers are left Under the condition of 'information poverty' which badly discourages people to realize own needs and to participate in planning and development activities.

In order to get rid of these obstacles, 'linkage' programme was carefully planned by the JSRDE project with three objectives. First, 'alleviation' of 'information poverty' and encouragement of people's participation for self development. Secondly, delivery of supports and services relating to rural development available with Thana level NBDs in collaboration with concerned NBDs and South Payalgachha UP. Thirdly, establishing a 'mechanism'<sup>16</sup> of the 'linkage' at Union level with existing manpower posted at the Union (Figure-2).

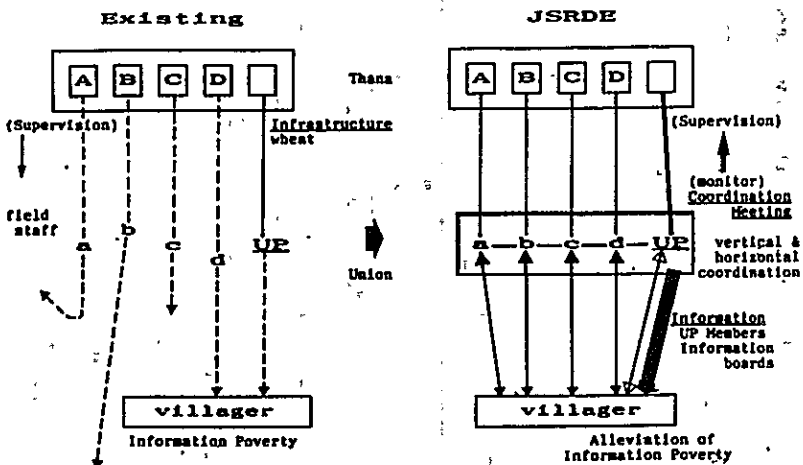


Figure-2. Comparison of The Coordination in Union Level

<sup>16</sup> Here term of 'mechanism' means software or manuals for operation of 'linkage' system.

Table 2: List of NBD field workers at #14 South Payalgacha Union

Sl No	Designation	Sex	Department	Jurisdiction	Present address	Education	Activity (assigned)	Type
1.	Block Supervisor	M	Agriculture	Ward-1(7 villages)	P Union	S.S.C	ASS advice & consultation to farmers, survey & report	seeking
2.	-do-	M	-do-	Ward-2 (6 villages)	-do-	S.S.C	-do-	-do-
3.	-do-	M	-do-	Ward-3(4 villages)	-do-	S.S.C	-do-	-do-
4.	Field Asstt. V	M	Livestock	4 Unions (10 villages)	Barura, Comilla	H.S.C	Branch office, vaccination, treatment, advice & consultation	wait/seek
5.	Field Asstt. AI	M	-do-	several Unions	-do-	H.S.C	AI center, AI, advice & consul in/on, etc.	waiting
6.	Asstt. Fo	M	Fishery	Thana (15 Unions)	P Union	H.S.C	loan, advice & consultation, survey & inspection of fishing	wait/seek
7.	Asstt. HI	M	Health	2 Unions (40 villages)	Debrai, Comilla	H.S.C	inspection of HA's work, coordination of HA,	wait
8.	Health Assistant	M	-do-	Ward-1(7 villages)	Sadar, Comilla	H.S.C	FP, Primary Health Care, advice & consultation, survey	seek/wait
9.	-do-	M	-do-	Ward-2 (7 villages)	Laksham, Comilla	H.S.C	-do-	-do-
10.	-do-	M	-do-	Ward-3 (4 villages)	Shahrest, Chandpur	S.S.C	-do-	-do-
11.	FPJ	M	Family Planning	P Union (18 villages)	P Union	B.Sc.	inspection & coordination of FWA's work	-do-
12.	FWV	F	-do-	-do-	-do-	S.S.C	Union FWC satellite clinic, coordination, advice & coordination	waiting
13.	FWA	F	-do-	Ward-1 (3 villages)	-do-	S.S.C	satellite clinic, Jigastha (question), promotion of FP	seek/wait
14.	-do-	F	-do-	Ward-2 (4 villages)	-do-	S.S.C	-do-	-do-
15.	-do-	F	-do-	Ward-2 (6 villages)	-do-	S.S.C	-do-	-do-
16.	-do-	F	-do-	Ward-2&3 (4 villages)	-do-	S.S.C	-do-	-do-
17.	-do-	F	-do-	Ward-3(1 village)	-do-	S.S.C	-do-	-do-
18.	Union Social Worker	M	Social Welfare	3 Unions (4 groups)	Barura, Comilla	B.A	supervision of groups, loan (distribution & realization)	waiting
19.	Asstt. Edu O	M	Education	3 Unions (60 villages)	-do-	B.A /B.Ed	school committee, supervizing	waiting
20.	Mechanics	M	PHE	3 Unions (79 villages)	-do-	n.a	band tube well repairing, survey and consulting	seeking
21.	Asstt. Co O	M	Co-operative	Thana (15 Union)	-do-	B. Com	auditing of Government registered cooperative	waiting
22.	Inspector	M	ITCCA	3 Unions (41 samity)	-do-	H.S.C	supervising of cooperative, loan (distribution, realization)	-do-
23.	Union Leader*	M	VDP	P Union (18 villages)	P Union	Class B	tree plantation, FP, group forming etc.	seeking
24.	Union Leader*	F	-do-	-do-	-do-	Class B	-do-	-do-

\*Not NBD field worker, (employee & volunteer)

Asstt. Assistant HI, Health Inspector, FPJ, Family Planning Inspector, FWV, Family Welfare Visitor, FWA: Family Welfare Assistant, USW: Union Social Worker, Edu: Education

O: Officer, F: Fishery, AI: Artificial Insemination, V: Veterinary, Co: Co-operative, ITCCA: Thana Central Cooperative Association, VDP: Village Defence Party,

S.S.C.: Secondary School Certificate, H.S.C.: Higher Secondary Certificate, B: Bachelor

Barura Thana: 15 unions and 243 villages (mauza), 59, 714 acres

South Payalgacha Union: 18 villages (mauza) 3,219 acres

Source: Authors interviews and survey (Dec. 94)

## Present Situation of Service Delivery in the Local Administration

At Barura Thana centre, Thana Development Coordination Committee (TDCC) meeting is held regularly with attendance of Member of Parliament (MP), all UP chairmen and all officers of NBD at Thana level at the first week of every month. As a regular schedule, each NBD holds weekly or monthly meeting with attendance of all its staff at Thana centre. It seems that coordination between NBD and UP has been well implemented.

In South Payalgacha Union, 24 personnel of 11 NBDs are discharging their duties under direct control of the officer of each department of thana centre, (Table-2). It can be said that number of NBD staff posted in the union is sufficient to carry out their duties and service delivery.

UP Chairman of South Payalgachha Union regularly attends the TDCC meeting and it seems that he gets in touch with the Thana administration. Sometimes, UP members act as an informant on some activities of UP to limited villagers.

As described above, the system of the Local Administration, somehow seems to retain some function in Barura Thana centre. However at present response and participation of the villagers to development activities are not at the expected level. Thus the villagers are deeply trapped in poverty in rural Bangladesh.

At the same time, NBD officers of Barura Thana centre face some difficulty to supervise their staff who are working at union level.<sup>17</sup> At the UP, neither information exchange between UP and NBD staff nor significant role on rural development assigned to UP

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<sup>17</sup> NBD staff working in rural area is under direct control of the NBD line agencies at thana centre. However, many officers at Thana centre admit that proper means of supervision of the staff are not yet systematized. Only Health and Family Planning department has the posts of an Inspector to supervise its staff - Health Assistants (HA) and Family Welfare Assistants (FWA) respectively.

have been observed<sup>18</sup>. In the village, not only NBD's performances but also NBD staff are almost invisible and their accountability seems almost absent<sup>19</sup>. Reality is that most of all the villagers stay beyond the boundary of information of NBD. Only a few villagers get limited service, but most of others get nothing from the Local Administration and NBD.

Therefore, it can be said that lack of horizontal and vertical 'linkage' of both coordination and information of the local administrative system is the main cause of 'information poverty' which prevents villagers' to participation in development activities.

### **Implementation of linkage programme**

Main components of linkage are coordination meetings both at UP (Union Parishad Coordination Meeting, here in after UPCM) and at Austodona (Village Coordination Meeting, here in after VCM) and information dissemination to the villagers through information boards. Participants of UPCM are NBD Union level personnel, UP members and a few village representatives, and the participants at VCM are NBD field staff assigned to Austodona and village representatives (Figure-3).

UPCM and VCM held twice and once a month, and both TRDO and ARDO, BRDB coordinates UPCM and VCM respectively. Procedures of both the meetings are as follows :

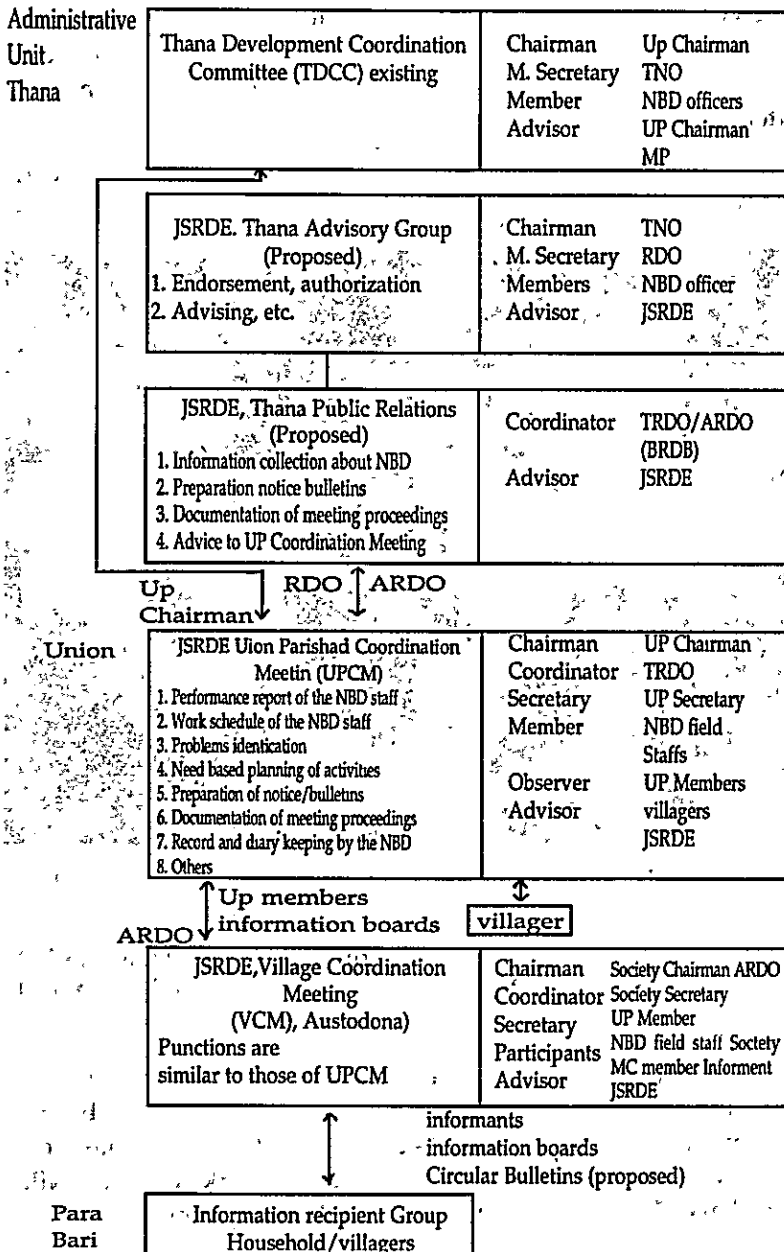
- (a) Review of the minutes of last meeting and follow-up,
- (b) NBD staffs' presentation of performance report and tour and work programmes of the next month concerned to the union and information relevant to rural development,
- (c) Discussion of problems identified by the participants, and so on.

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<sup>18</sup> UP is kept outside of most of all the development works carried by NBDs. Only a few cases of contacts between the NBD staff and UP have been observed in South Payalgachha Union.

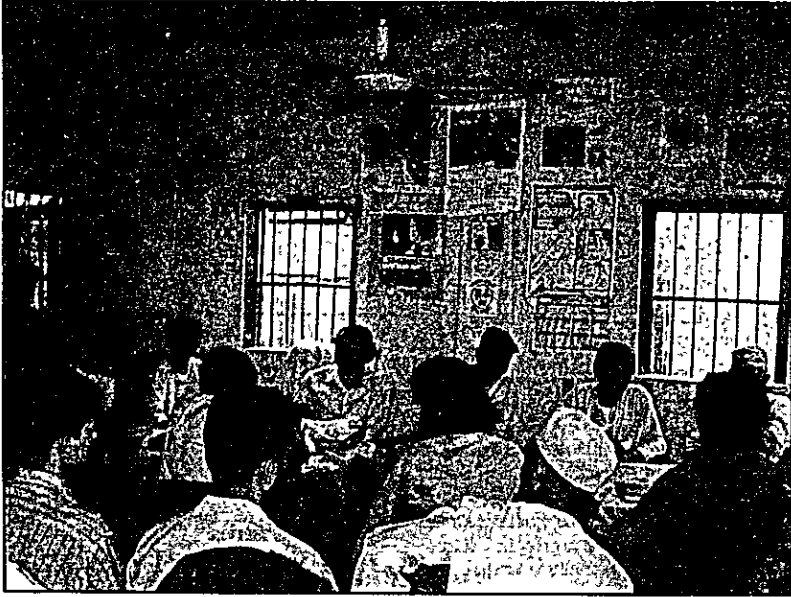
<sup>19</sup> Only a few staff of Family Planning and Health Department regularly used to visit Austodona once or twice a month and no other NBD staff visited the village before. It is not difficult to say that other villages have almost similar situation like Austodona.

Figure-3 Framework for JSRDE Linkage Austodona



BRDB is assigned to collect rural development related information from Thana level and to present before the members of UPCM and VCM. Proceedings of both the meetings are written by BRDB-TCCA inspector with assistance from JSRDE and typed and cyclostyled by the TCCA to be distributed among the attendants of each meeting.

UP member of concerned ward conveys advance tour and work programmes of NBD staff and different information to the villagers.



*A scene of the Union Coordination Meeting which is held at South Payalgacha Union Parishad, Barura, Comilla under linkage Programme being experimented by JSRDE project*

At the same time tour programme compiled by BRDB and JSRDE Project are put up as bulletins on 18 information boards by the UP chowkidars.

Through practicing the 'linkage' model information dissemination through coordination meeting and information board, communication among NBD staff, UP and villagers has been improved. Number of visits and quality of works done by NBD staff have already been improved and become more visible than



before (Table-3). Consciousness about importance of information and coordination has gradually been developed among participants of the coordination meetings.

**Table-3. Change of Accessibility by NBD at Austodona**

	Before JSRDE	JSRDE Linkage
HA	*	**
FWA	*	**
BS	0*	*
VFA	0*	*
AFO	0	**
DPHE	0*	**
TCCA	0	**
HA :	Health Assistant	
FWA :	Family Welfare Assistant	
VFA :	Veterinary Field Assistant	
AFO :	Assistant Fihary Officer	
0 :	not seen	
* :	few times	
** :	several times	

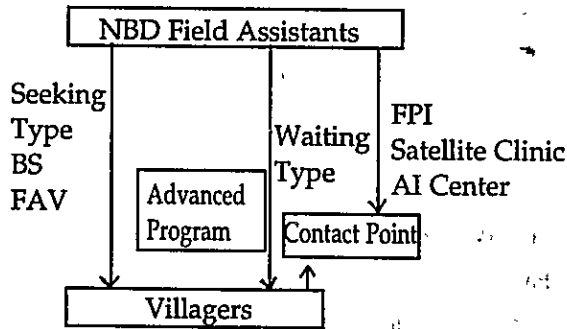
Results of 'linkage' programme seem to be positive and encouraging. Some NBD staff already inform his or her advance tour programme and negotiate the programme with UP members at the coordination meetings. UP members have begun to convey information to the villagers. They seem good to be the conveyers of information to rural area. Information poverty has been reduced to a considerable level.

### Findings

In regard to access of the villagers to the services as supplies of NBD field staff can be grouped into two types, one is 'seeking' type and the other is 'waiting' type (Figure-4).

On the works of 'seeking' type, the staff, such as Block Supervisor (BS) and Veterinary Field Assistant (VFA) travel to villagers under their jurisdiction to provide services and supplies. On the other hand, the works of 'waiting' type, i.e. staff of EPI of Health, Satellite clinic, Family Welfare Centre (FWC) of Family Planning (FP) and Artificial Insemination (AI) Centre of Livestock, wait for those who need their service at the scheduled.

Figure-4. Work Type of NBD Field Staff

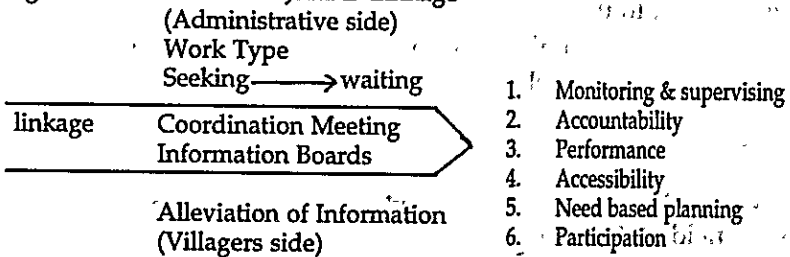


place and time.<sup>20</sup> If the work of 'seeking' type is transformed into 'waiting' type, the burden of works of NBD staff could be reduced and more efficient support service could be delivered to the villagers with present number of NBD staff.

JSRDE 'linkage' can so far be, summarized as follows (Figure-5)

(a) Both UPCM and VCM provide opportunity of development coordination horizontally and vertically in rural areas. Local

Figure-5. Mechanism Of JSRDE 'Linkage'



<sup>20</sup> Work types are classified from the point of view of NBDs. In case of classification by that from the villagers, naming of 'seeking' and 'waiting' may be reversed. Works of 'seeking' type keep more responsibility on planning and carrying out of duties on the discretion of staff than those of 'waiting' type.

- people can be motivated and mobilized to participate in the development by the support services, information and so on which will be delivered through the 'linkage' system.
- (b) UPCM may change NBD's working mechanism from 'seeking' type to 'waiting' type and reduce work burden of NBD staff (Table-4).

**Table-4. Comparison of Work Type of NBD Field Staff**

	Seeking	Waiting
Advance Information	few	many
Schedule	low	high
Performance		
Accountability	low	high
Accessibility	low	high
Supervision	low	good
Work performance	low	better

- (c) Both regular information sharing and face to face dialogue by NBD staff and UP members will create some sort of monitoring system and accountability.<sup>21</sup>
- (d) UP will play an important role in rural development as cross road of information about support service and infrastructure. UP members can work as a conveyor of information to the villagers. In future, local village leaders may be involved in information delivery system as informants.
- (e) Alleviation of 'information poverty' will promote villagers to find out the needs and to participate on self development activities.

<sup>21</sup> UP members and local leaders can observe the work of NBD staff, each departmental heads of Thana NBD can ask about work of the staff from the members and the local leaders. This will work as a system of supervising as well.

### 2.3 Effort for the Introduction of Environmentally Sustainable Farming Technologies

Many villagers at Austodona are investing in sending relatives to be employed abroad rather than in farming (Table-5).<sup>22</sup> It is needless to say that Austodona is from the point of view of socio-economic aspects a village which depends on income from off-farm rather than from Agriculture.

Table-5. Income from off-farm Job at Austodona

Working Place	person	families	monthly remittance
Abroad	21	18	n.a
outside Austodona	41	—	—
Around Austodona	27	45	Tk. 70,000/
Total	89	63	n.a.

Source: JSRDE, December '94

Upto recent days, "Broadcasting Aus (B Aus) - Transplanting Aman (T Amon) - Fallow" was the main cropping sequence in Austodona. Rain and surface water, if available in due time, has been the water source of farming. Most of farm land remain fallow in dry winter season.

However, due to scarce opportunity of off-farm income in the village, it is easy to think that agriculture still dominates the opportunities of providing employment and generating income.

To innovate system of agriculture, two completely different types of approaches emerged at Austodona, one was Environment Reformative Technology (ERT) of the villagers and the other was

<sup>22</sup> 21 persons of 18 families work on abroad and 68 persons of 45 families work with in the country in off-farm jobs, such as service, rickshaw pulling, pedlary, handicraft making and so on and getting income. Monthly remittance from off-farm job mentioned above to the village stands at around 70,000 Taka.

Environment-Adaptive Technology (EAT) of the JSRDE project.

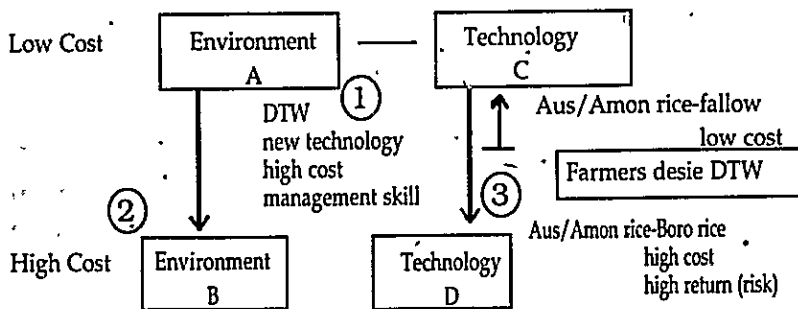
### Environment Reformative Technology (ERT)

The technology of DTW-which the farmers wanted was due to the fact that they wanted to reform environment of farming drastically from dry field to wet paddy field in dry season with installation of DTW, a quite new technology at Austodona. Then it would have enabled them to cultivate modern varieties of Boro rice and rice production would have increased.

This type of technology can be called as Environment Reformative Technology (ERT). This requires not only large economic investment in terms of initial cost and running cost both of the farmers. It also needs managerial capability of the farmers both in terms of management and operation of new facilities (Figure-6).

The result of test boring and water analysis of ground water showed that water layer and the quality and quantity are moderately good for rice cultivation. It lies about 150 meter deep in the village. Considering the subsidy to DTW from the Government, the cooperative prepared a scheme for DTW irrigation as one of the cooperative's business.<sup>23</sup> After knowing about suspension of subsidy to DTW by the Government, the villagers came to the

Figure-6. Environment Reformative Technology (ERT)



<sup>23</sup> It was believed that salinity in ground water would damage crops and good harvest could not be expected in the village. Then villagers have never tried to use ground water for irrigation.

JSRDE project and asked for financing the scheme.<sup>24</sup> Since the JSRDE project could not provide any budget for the DTW, the scheme instantly came to a deadlock.

### Implementation of Farming Technology Programme

In order to shift villagers' attention from DTW to other attractive schemes and break the deadlock, several farming technologies such as micro irrigation, cropping pattern innovation etc. have been tried by the JSRDE project in collaboration with the Austodona cooperative.

Alternative farming technologies suggested by the JSRDE project require relatively low input and moderate management skill compared to DTW.

From the careful study, following observation may be noted:

- (a) Austodona was mainly a mono crop (rice) producing village.
- (b) local variety (LV) Aus and Amon rice production in a traditional way was dominant.
- (c) Production of cash crop, i.e. vegetable and fruits was very negligible.
- (d) Land is not properly utilized, for example, nursery of Aman rice locating on relatively high land remains fallow for several months after seedlings are removed.
- (e) Cultivation of late varieties of LV rice both Aus and Aman prevents early cultivation of Rabi crops. Early Rabi crop cultivation enables farmers to use less irrigation water.
- (f) Ground water can be used to supplement any irrigation with careful management because salinity may not be so high as the villagers believe.

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<sup>24</sup> The DTW scheme requires not only huge initial cost to purchase and sink tubewell but also requires sophisticated skill of operational management both in water distribution and management.

To change the cropping pattern from "B Aus - T Amon - Fallow" to "B or T Aus - T Aman - Rabi crop", the JSRDE project tried demonstration farm of various Rabi crops in October 1993. For avoiding risk of the farmers, they were not directly involved in the programme.<sup>25</sup> However, the JSRDE project provided some seeds and seedlings of vegetables free of cost to those who showed interest in the demonstration plots (Table-6). At the same time,

**Table-6. Comparative crop diversification At Austodona**

Crop	Before JSRDE	JSRDE 94/95
MV Rice	*	***
MV Wheat	**	***
MV Banana	0	***
MV Soyabean	0	**
MV Potato	0	*
MV Cabbage	0	*
MV Cauliflower	0	*
MV Radish	*	**
MV Kankon	0	*
MV Pakchoy	0	*
MV Sunflower	0	*
MV Watermelon	0	**
LV Chilli	*	***
LV Mustard	*	**
LV Pea	*	**

Source : JSRDE

0 : not exist

\* : exist, very little

\*\* : exist, moderate

\*\*\* : exist, many

cultivation of early varieties of modern variety (MV) Aus and MV Amon were promoted among the villagers by the JSRDE Project<sup>26</sup>.

<sup>25</sup> Newly introduced crops at Austodona are soyabean, HYV rice, banana, pumpkin, kakrol, arum, watermelon, potato, peas, tomato, pakchoy, cauliflower, cabbage, radish, etc.

<sup>26</sup> Before the JSRDE project activity, most of the land used to remain fallow during 'rabi' season. whereas in 1994-95, 18 types of 'rabi' crops and vegetables in 19.75 acres of land and six hundred HYV banana saplings have been cultivated by the villagers. Out of the coverage of 19.75 acres, HYV wheat and rice were in 9.67 and 1.90 acres respectively. The rest 8.18 acres were under other 16 types of crops and vegetables.

Since the lack of irrigation facility was understood as one of the obstacles to crop diversification, seven pedal pumps were experimentally installed by the JSRDE project in order to demonstrate the prospect of supplementary small scale irrigation in the winter of 1994 and 1995.<sup>27</sup>

Initially response of the villagers and the cooperative to the vegetable demonstration seemed very discouraging. However, after observing the good result of the demonstration, some neighbouring farmers have gradually started cultivating crops and vegetables first with the seeds provided by the JSRDE project and subsequently with their own purchased ones.

A few farmers have started cultivating several kinds of nitrogen-fixing crops, such as soyabean, motor (pea) and musur dal (lentil) etc.<sup>28</sup> This legume cultivation already brought good harvest of Aus rice in the next year.

During and after irrigation with pedal pumps no serious defect and problem was seen to be caused by salinity in both crops and soil so far.<sup>29</sup>

The JSRDE project intervention causes some kinds of social change among the villagers. When goats damaged vegetables in the demonstration plot, pasturing goats at Austodona was immediately forbidden and the news was spread to all the villagers by the cooperative.

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<sup>27</sup> Crops were irrigated with 'saline' ground water by the pedal pumps. Field of potato and watermelon was irrigated twice and three times respectively during cultivation. Other vegetables were regularly watered twice or three times a week. Boro rice field was irrigated 19 times by the pedal pumps from February to May 1994.

<sup>28</sup> 250 kg of soyabean seed was sold by the cooperative and six acres of land was under soyabean cultivation by about 20 farmers in the winter of '94.

<sup>29</sup> The pumps irrigated 2.59 acres of land during 'Rabi' season, 1994-95. Out of 2.59 acres, 1.05 acres were under wheat, 0.54 acre was under HYV boro rice. Other crops like potato, radish, tomato, sunflower, chilli, watermelon, etc. were cultivated in the rest of the land. Total production of rice was about four aunds on the plot, that is about 40 maunds per acre.

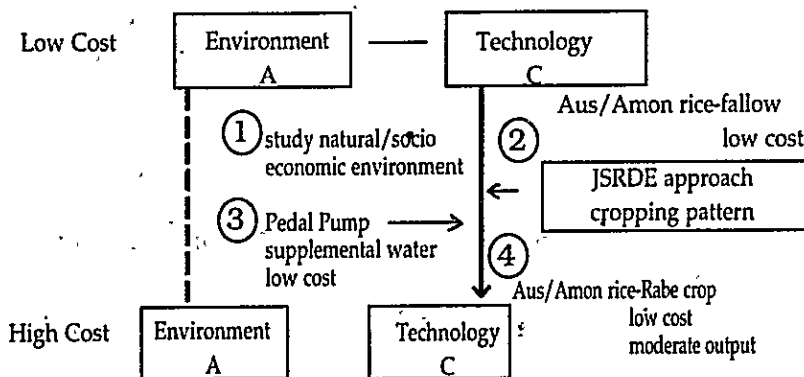


## Environment Adaptive Technology (EAT)

Crop-diversification technology introduced by the JSRDE project is free from drastic reformation of farming environment, it consists not only of minor innovation of the cropping pattern but also adaptation of cropping pattern to the existing environment.

Figure-7. Environment Adaptive Technology (EAT)

This technology can be called Environment Adaptive Technology (EAT) (Figure-7). EAT requires moderately low input and it enables farmers to implement with their own cost and will. It is easy to



### Procedure of EAT

1. Study natural and socio-economic environment
2. JSRDE approach (cropping pattern renovation)
3. supplemental irrigation (Environment A not reformed)
4. renovation of farming technology (cropping pattern sequences)

assume that sustainability of EAT will be better than that of ERT.

### Findings

Environmental condition in winter is dry and very little water for

- 30 Initial and operational cost of pedal pump is very low compared with that of DTW, farmers can afford by themselves. That is why managerial sustainability may become high.

agriculture was available at Austodona. Boro rice cultivation requires sufficient irrigation, but Rabi crop cultivation requires a little quantity of supplementary irrigation. DTW irrigation can be classified as the technology which change the environment drastically with higher input. On the other hand, supplementary irrigation with manual pedal pumps brings minor changes of the environment and both initial and running cost is comparatively low.

It is obvious that sustainability of ERT is very low at Austodona, because farmers' ability of finance and operation of the DTW is still low and marketing system of farm products has not been developed as yet. Therefore, the JSRDE Project has suggested EAT as alternative approach to the farmers. A few farmers have already practised EAT.

From the experience of the JSRDE, ERT and EAT are observed as follows :

- (a) EAT needs comparatively low initial and running cost than those of ERT.
- (b) Requirement of managerial ability of operation is much higher for ERT than for EAT.
- (c) Production under ERT may be higher than that under EAT. Therefore, ERT depends on the larger market to dispose of huge products. Products of EAT remains moderate most of which can be sold in the local market.

That is for all input market dependency and managerial ability under ERT are quite high, economic risk under ERT is very high. However, those under EAT remains low or moderate and the farmers can individually operate EAT without depending on external sources. Because of free from dependency on external resources, sustainability of EAT will remain higher than that of ERT (Table-7).

Therefore, it is our learning that when new technology is extended EAT technology which can be implemented with low cost and

low economic risk should be applied first. If ability of management and budget provision is improved among the farmers, then application of ERT should be considered as the next alternative option.

**Table-7. Comparative Table of EAT and ERT**

	Environment Adaptive Technology (EAT)	Environment Reformative Technology (ERT)
Input (cost) initial/running	Low	High
Output/return	Moderate	High
Management ability	Low (moderate)	High
Economic risk	Low	High
Market dependency	Low	High
Sustainability management	High	Low
Sustainability soil fertility	High	Low (fragile)

#### **2.4 Promotion of off-farm Investment and Employment Opportunities for Income Generation**

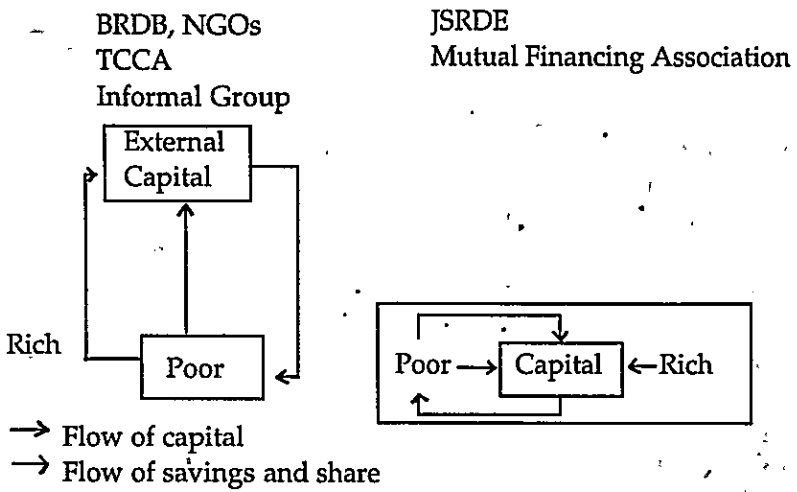
As a financing institution<sup>31</sup> Austodona cooperative supported income generation activities like small business, handicrafts making and so on of the individuals from the capital accumulated through small scale savings and share deposits of the members. It is obvious that both financial and managerial sustainability of the mutual financing association is higher than BRDB-KSS type cooperatives because of less dependency on external financing and simple management and decision making-systems (Figure-8).

Capital flow from BRDB and NGOs to the poor for economic development made the beneficiaries highly dependent on the

<sup>31</sup> see 2.1 footnote 3.

external resources and authorities. Those capital flows back to the hands of the external agencies. Such dependency may be the cause of low level of sustainability of the system.

Figure-8. Capital Flow and Sustainability of BRDB, NGOs and JSRDE



In case of the cooperative of Austodona the rich and the poor have been accumulating their own capital for economic development through thrift deposit and utilizing the capital as a financing association. The capital is flowing from the rich to the poor (Table-8).

Table-8. Comparison of BRDB, NGOs with JSRDE

Indicators	BRDB-KSS, NGOs	JSRDE Austodona
Financial dependency	high	Low (Autonomous)
Capital formation	external	internal
Authority (decision making)	outside	inside
Sustainability	high	low

**Off-farm Income Opportunity at Austodona**

As possible ways of off-farm income generation, employment in service, self-employment and production related employment have been sought by the JSRDE project and the cooperative at Austodona. No effective programme of off-farm income generation could be suggested till now.

Out of the total population of 507 on June '95, 21 and 68 persons are employed abroad and within the country respectively. At Austodona 15 persons are self-employed as vendor, own rickshaw puller, artisans etc. These information indicate that off-farm income opportunity is very limited at Austodona. For this reason the villagers always seek job outside.

Handicrafts production is generally mentioned as one of income resource in the rural area. However, any tradition to make handicrafts does not exist at Austodona, only four women trained before joining present families at Austodona have skill of making handicrafts. Since Austodona is situated far off from market, the villagers have hardly showed direct eagerness to promote handicrafts production in the village. Products by the women is usually sold one by one in the village or nearby market by their husbands. They regularly face problems about marketing and finance.

On the other hand, the cooperative has sought the ways of investing its capital accumulated from shares and savings of members at a point of time. Then to fulfil the need of both the cooperative and the poor women, provision of small credit to those who are poor and has skills to make handicrafts was suggested to the MC by the JSRDE project.

It was rather easy for the cooperators to understand the benefit that can be derived by the loan disbursement programme because of familiarity of the members with the encouraging impact of the rickshaw and poultry loans which have already been issued to the members. Then small scale credit programme has been accepted

and became one of the important activities of the cooperative. Initially loan was disbursed to a poor woman who can make fish net then loans were disbursed for bamboo craft and mat making, small business like vender and fish business etc. without any hesitation.

#### Performance of the small scale credit

The cooperative society distributed TK. 1,68,770 as loan to 67 beneficiaries (female 35%) in 93 loans for poultry rearing, fishing net making, thin mat making, trading, bamboo craft making, fish trading, rickshaw pulling, employment abroad, repairing of own rickshaw, household expenditure, farming, purchasing text books, shop keeping, previous loan repayment and purchasing land. These are direct or indirect rural economic activities (Table-9).

The cooperative society realized TK. 83,800, and TK. 28,590 as principal and service charge, respectively from the beneficiaries during the reporting period. There is no overdue instalment of principal or service charge of the loans upto June '95.

It has been estimated that 41 credit beneficiaries, of TK. 75,470 (45% of total disbursement) in 67 loans (a few beneficiaries took more than one successive loan) generated a net income of TK. 4,06,730 and employment of 8,143 man-days. Out of the total net income TK. 3,69,760 (90%) was consumed and TK. 36,970 (10%) was saved by the beneficiaries. By using these savings as capital 32 beneficiaries have been financially self-reliant in their respective activities i.e., they have been able to continue that specific income generating activities by their own capital. (Table-10)

**Table-9. Impact of Credit by the Cooperative during July 1992 to June 1995**

Sl. No.	Purposes of loan	Number of beneficiaries	Number of loans	Amount of loan disbursed in Tk.	Realization of principal in Tk.	Realization of dividend in Tk.	Net income generated by the beneficiaries in Tk.	Consumption of the net income by the beneficiaries in Tk.	Capital formation by the beneficiaries out of the net profit of in Tk.	Employment generated in man days	Number of self-reliant beneficiaries
1.	Poultry rearing	14	17	5100	5100	1095	7685	4565	3120	641	11
2.	Fishing net making	1	3	450	450	30	330	180	150	112	1
3.	Thilo mat making	3	4	2000	2000	290	1720	1650	70	100	1
4.	Trading	10	21	16500	9700	1100	87910	81300	6610	2387	7
5.	Bamboo craft making	2	4	2000	1600	150	9690	8500	1190	515	25
6.	Fish trading	3	7	5500	4050	375	75550	74250	1400	1180	2
7.	Rickshaw pulling	8	11	43920	35900	12975	223745	199315	24480	3208	8
	Total	41	67	75470	58800	16015	406730	369760	36970	8143	32

Note: Eight hours work involvement is one man-day.

**Table-10. Performance of Life Insurance Society**

Sl. No.	Purposes of loan	Number of beneficiaries	Number of loans	Amount of loan disbursed in Tk.	Realization of principal in Tk.	Realization of dividend in Tk.	Net income generated by the beneficiaries in Tk.	Consumption of the net income by the beneficiaries in Tk.	Capital formation by the beneficiaries out of the net profit of in Tk.	Employment generated in man days	Number of self-reliant beneficiaries
1.	Poultry rearing	14	17	5100	5100	1095	7685	4565	3120	641	11
2.	Fishing net making	1	3	450	450	30	330	180	150	112	1
3.	Thilo mat making	3	4	2000	2000	290	1720	1650	70	100	1
4.	Trading	10	21	16500	9700	1100	87910	81300	6610	2387	7
5.	Bamboo craft making	2	4	2000	1600	150	9690	8500	1190	515	25
6.	Fish trading	3	7	5500	4050	375	75550	74250	1400	1180	2
7.	Rickshaw pulling	8	11	43920	35900	12975	223745	199315	24480	3208	8
	Total	41	67	75470	58800	16015	406730	369760	36970	8143	32

Table-10. Performance of Credit by the Cooperative for Improving Rural Economy and Life During July 1992 to June 1995

Sl. No	Purpose of Loan	Number of b'ficiaries	Number of loans	Account of loan disbursed in Tk.	Realization of principal in Tk.	Overdue principal in Tk.	Realization of profit in Tk.	Overdue profit in Tk.
1.	Dispatch family member for job abroad	6	6	53500	1500	-	5080	-
2.	To repair rickshaw	2	2	25000	500	-	50	-
3.	Household expenditure	6	6	11000	-	-	3685	-
4.	Support farming	6	6	6300	500	-	-	-
5.	Support education	1	1	1000	-	-	-	-
6.	Support shop keeping	1	1	3000	3000	-	1810	-
7.	Repayment of land mortgage loan	1	1	6000	6000	-	950	-
8.	Purchase of farm land	3	3	11000	-	-	1000	-
Total		26	26	116,800	11,500	-	12,575	-

**Results of the small scale credit operation as a Mutual Financing Association**

Effect of Austodona cooperative as a mutual financing association still could change a little of the situation of off-farm income at Austodona. The interest rate of loan from Austodona cooperative is 20% for 6 months, that is 40% per year, which is higher than



16% per year as charged by BRDB cooperative. But in case of Austodona it is the members who will get back interest against share. Where local money lenders demand 60-120% annual interest, however, villagers can have access to relatively cheaper loan.

The experience of savings and credit programme operated by the Austodona cooperative shows that it can contribute in resource mobilization at the village. In addition, low dependency on the resource of outside guarantees, 'sustainability' of the Austodona cooperative. The performance of the cooperative is somehow and other good so far.

The reasons why the results of Austodona cooperative is better than the existing cooperatives sponsored by BRDB are considered as follows :

(a) Austodona cooperative played the role of a mutual financing association as loan disbursed by Austodona cooperative is totally financed from own resource such as share and savings of members and mainly disbursed to individual economic activities of its members. In case of BRDB-KSS, the existing cooperatives are broadly dependent on finance from external agencies like donors and the banks. It can be said that villagers are practically mobilizing the resources in the village through careful handling of resources by the cooperative.<sup>32</sup>

(b) Austodona is a small village and its size of unit is as same as a Para<sup>33</sup> itself, where people are under some social habit and relation which keep the area free from troubles [Maloney & Ahmed : 76]. At present, the cooperative covers 73 households out of total 76 households, the rest three are households of beggars and the elderly person. It can be said

<sup>32</sup> The cooperative tries its best to select right beneficiaries to ensure security of the villagers' own money.

<sup>33</sup> [Maloney & Ahmed : 76]

<sup>34</sup> The majority of spontaneous groups are really neighbourhood associations, often within the Para (hamlet). There is a sense of Para identity and some corporate functions which have not been adequately discussed in the Bangladesh sociological literature.

to that the cooperative is almost community itself at Austodona. Therefore, some social factors as existing there may be called 'authority of the village society' acted as more effective rules than the rules of the cooperative.

(c) Loanees are strictly limited among the members of the cooperative who live at Austodona and where so called 'authority' mentioned above usually functions well. This ensures guarantee and security of money of both the loanees and the cooperative.<sup>34</sup>

(d) Demand for the loan by its members is higher than its supply capability, because of its easy access to the loan compared to that of the Banks and BRDB-TCCA. Realization of loan is going on smoothly. It has been possible by the cooperative for its right selection of beneficiaries, close supervision and community pressure.<sup>35</sup>

(e) The profit earned by the cooperative are supposed to be distributed partly among the members of the cooperative according to their amount of shares in the cooperative. Whereas, in case of other resources of credit the beneficiaries does not get any profit back.

(f) As the loans are used by the beneficiaries for diversified purposes, including consumption, education, social development it contributed to fulfillment of basic human needs of the members.

(g) There is a positive relationship between capital accumulation and expansion of village economic activities maintain at Austodona which is sustainable.

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<sup>34</sup> In 1980's, there was an informal savings and credit samity which did not last long at Austodona, because of mismanagement of the then chairman-cum-manager of the samity. However, one village leader told that the samity disbursed loans to people who were not members and stayed beyond the boundary of Austodona. This suggests that realization of loan outside its jurisdiction is very difficult.

<sup>35</sup> The cooperative can select beneficiaries rightly because of close familiarity of the villagers among themselves.

### 3.25 Conclusion

The cooperative based on village community has been emerged as a village institution, a vehicle for rural development.

Since the formation, the cooperative has been struggling to extend benefit oriented economic programmes both for individual's and cooperative's income generation. As a matter of fact, attempts of the joint business by the cooperative faced difficulty, could not be successful as expected. Finally, the system of mutual financing association has been emerged through experience of the cooperative and it shows a positive result.

At the same time, farmers started practicing ecologically sustainable and environmentally friendly appropriate farming technology, EAT.

To promote and ensure more development (both economic and non-economic activities) as catalytic agent, the importance of information and support service is understood and accepted by the villagers. Then the programme linking up the villagers with the local administrative bodies is now under way in JSRDE Austodona.

It is too early to conclude the effect of the JSRDE approach because the villagers are struggling to improve their life style. The effects of the efforts are still a little. However, there are a few positive and explicit signs of improvement. One is that the villagers of Durgapur village, south to Austodona, has formed a cooperative because of demonstration effect of Austodona. Another is that the system and mechanism of UPCM is duplicated and practiced in another UP (Shilmury) in Barura by the decision of TDCC.

Through the experiences of JSRDE project we have learnt:

(a) Linkage may be the key factor for total rural development.

Through this system, village institution can be linked up with UP, NBDs at both union and thana levels and NGOs both horizontally and vertically for both way of communication of information and messages and for technology diffusion and support service delivery. It can be

treated as the link pin for development of the village as per basic approaches of the project.

Therefore, we can recommend that linkage system should be implemented after deep thought at the planning and policy level. A mechanism is to be developed and cooperation and coordination should be established at the upper hierarchy of the Government. Necessary guidance is to be issued and followed up regularly so that linkage can become an effective tool for overall development of the village. Thus, in the process this can be emerged out as a model for rural development in Bangladesh.

(b) The existing cooperative like BRDB-KSS are organized on the basis of target group approach in order to improve rural livelihood through economic activities. However, attempts of the economic activities promotion through cooperative, like joint business by cooperative, has not achieved good results.

The mutual financing association emerged from the experience of the cooperative of Austodona is worthy to be considered. It can mobilize the small entrepreneurship and create the job opportunities with the own resources available. Utilizing the own resources, financial sustainability can be encouraged, thus dependency can be reduced too.

Further, with the proper supervision of the village authority (community consciousness and local leadership), this may be applicable to the existing cooperative in Bangladesh.

(c) Requirement arisen from the villagers seemed to be their real needs. If we respond to that requirement without any consideration, the response of the villagers may seem very positive and the success and rosy picture may be visible initially. But these effects will not sustain longer unless the time is matured for development.<sup>36</sup>

<sup>36</sup> Unless both financial and managerial abilities of the villagers develops, any sustainability is impossible.

We learnt that totally strange technology was hardly to be responded by the villagers, thus leave them to adopt the technology without much intervention.

Then, extension strategies for farming technology are as follows. Firstly, demonstration farm should be set up, and identify needs, will and ability of the villagers. Secondly, it is not necessary to transfer the technology for all. Rather the technology should be transferred to those who really need it and have interest.

At Austodona, initially the villagers accepted the farming technology with the concept of EAT recommended by JSRDE project. The experience from there shows that direct intervention through economic incentives may not work always

- (d) As there is limited scope and potentiality for off-farm activities, for both male and female at Austodona, so avenues and scope for the above works to be found out to neighboring villages and nearby small towns.

Many villagers already have external avenues such as working abroad and services in other parts of the country. At present it can be said that seeking opportunities of works outside the village may create the additional employment of the villagers. New avenues may be added to the village under symbiotic relationship with urban non-farm sector.

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# Experiences of Rural Development in Fanishair Village - An Overview

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## The Village

### 1 Institution

Historically, the basic institution of the rural people is family which extends sequentially upward to Bari, Para, Somaj, Village. The loyalty of the villagers starts from family and then to upper tiers depending on the degree of benefits to be acquired. Traditionally the village matbars/sardars, rural elites, land lords, money lenders etc. dominate the rural decision making process.

In order to analyse the institutional interventions that have been made in the project village, it is probably necessary to know the village first. In the following paras, the village situation is analysed.

#### 1.1 The Project Village

Fanishair is one of the twelve villages of Subidpur East Union under Faridgonj Thana of Chandpur District. It lies in the lower Meghna floodplain. The Dakatia river runs through the northern side of the village. Fanishair is situated in the heart of the union surrounded by Lakshmipur village in the East, South Telishar and Basara villages in the north and Kamta, Subidpur and Bagura villages in the west. It is a medium-sized village in terms of population and area in the Union. It lies about 20 km east of Chandpur city and 12 km north-east of Faridgonj Thana.

The northern side of the village is fairly high land and a community market called Basara Bazaar where two weekly

markets (hat) are held, is situated there. There is a government high school adjacent to this bazar. Further west of the village, the embankment-cum-road of the Chandpur Irrigation Project (CIP) runs from north to south.

Between the embankment and Kamta khal, there is another community market called Kamta bazar where two weekly markets (hat) are held. In addition to the shops, Subidpur Union Parishad office, a post office, a mosque and a madrasa are located in the market area.

This village has an area of 225 acres of which 20% is residential with homesteads (bari), ponds, pools, commuting roads and footpaths. The rest is farm land, mostly lowland around the bari with about 75% being farmed by the villagers. At the centre of the village there is a Government primary school and a mosque.

There are hand tubewells installed in each bari in the village for drinking water with Government aid. Pond water is used for cooking, washing, bathing and kitchen gardening.

Total population of the village is 1,446 with 53% male and 47% female. These people constituted 252 households, with average family size of 6.72. The percentage of children under 15 was 49.11%, whose average number was 3.3 per household. The productive population of 15 and above is 50.89% of which 52.77% are male and 42.77% female.

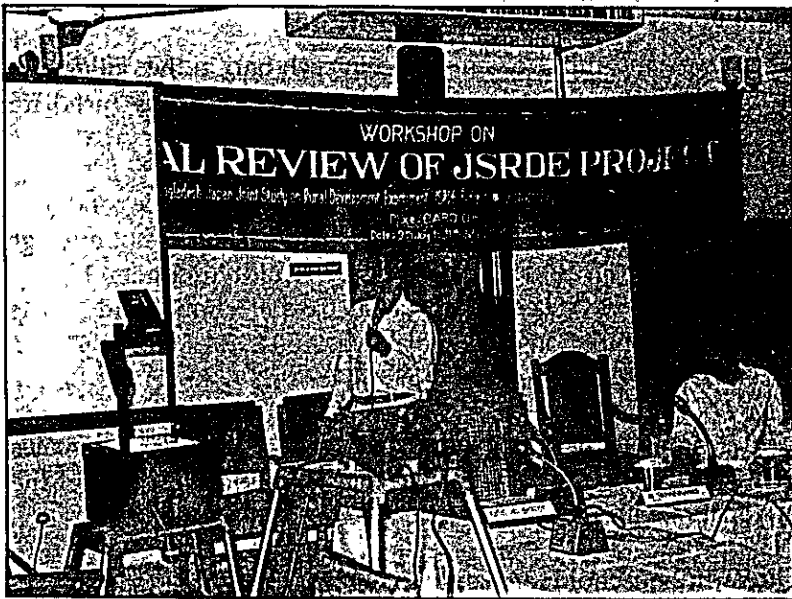
The literacy rate above 5 years of age is 31.1% – 36% for males and 26% for females. The literacy rate is slightly lower than the national rate (32.4%).

The farm households make up 77% of all households and 16% of them are full time farmers. Farmers have adopted a few farm machineries and equipment. Livestock and fishery helped the villagers to earn side income and are sources of protein and animal fat. Cows and bullock also served as draught power for ploughing. No special care is given to livestock and fishery.

The basic cropping patterns are two rice crops in Boro and Aman seasons. In Boro season they usually cultivate HYV and local variety is cultivated in Aman season.

Fanishair village has an area of 225 acres, three-fourth of it are under cultivation. Landholding is very skewed, with bottom 50% households excluding landless, owning as little as 10% of the land and the top 5% households own as much as 30% of the land.

The villagers of Fanishair are engaged in both farm and non-farm activities within and outside the regions. In non-farm activities, population are mostly engaged in manual works, such as day labour, rickshaw pulling, low-ranking Government salaried jobs, pedlary etc.



*Mr. Masudul Haque Chowdhury, Deputy Director, BARD, Comilla is presenting village report on Fanishair, Chandpur in the workshop on Final Review of the JSRDE project held from 9th to 11th July 1995 at BARD.*



Many of the villagers have good knowledge about family planning gained from various sources including mass media, extension agents, advertisements and by observing the contraceptives on sale in the bazar. But they are not willing to adopt the family planning practices. In case of women 24 adopted permanent methods of family planning and 36 adopted temporary methods. In case of males, very few adopt family planning.

## **2. Institutional Intervention**

A rural community has a power structure which consists of small number of powerful men. By virtue of their personal wealth, their followers of violent and non violent supporters, their official political positions and through a complex net of co-operative connections with other powerful men including the Government officers, a small group seem to have obtained a very disproportionate share of power. The rural people of Bangladesh are highly conservative, traditional in their outlook, and economically depressed. It was thus felt necessary to organise the rural people under an organisation which would have popular participation for bottom up planning and implementation with a view to enjoying the benefits of development. There is considerable evidence which suggests an association between the success of participation, development of natural resources and existence of strong institutions at the local level. Local institutions are necessary for a number of reason, including the provision of services (such as credit, agro-inputs), the formation of villagers' capital through savings, the marketing of agricultural products, etc. Local institutions have the potential to increase accountability and equity. Representatives of local institutions help to ensure equitable access to inputs and in the increased access to government officials, improve poor people's ability to respond to injustice and open opportunities of access to political power.

### **2.1 The Village Cooperative**

Considering these facts the Farnishair Comprehensive Village Development Co-operative Society was formed in December, 1992.

The decision to form such a society was taken in a general meeting of all the villagers.

The cooperative covers 217 households out of 252 in the village. It has 580 members as of December 1994. The membership comprises of 299 males, 137 females and 144 children. The children are considered as associate members. The Managing Committee consisting nine members which is responsible for overall management of the cooperative.

Their monthly savings rate is Tk. 10/- per member. In addition, all the members are required to pay Tk. 5/- as admission fee. The society engaged three members to collect the monthly savings. As of December 1994, the cooperative has accumulated a total of Tk. 1,54,000 as their own monetised resource.

The general meeting of the society is held once in a month. The managing committee (MC) meeting is also held once a month. In these meetings they discuss various issues regarding the society as well as the village. The monthly meetings are the forums where the scope of popular participation and bottom up planning have been created and practised.

The members of the society selected two persons, one as Chairman and another as Manager on mutual understanding. Both of them belong to the salish group of the village i.e. to the power structure. Even the members of the MC were also selected from amongst the village stratum, in other words from the faction heads of the village. Thus there was no visible change in the decision making process of the cooperative; it followed the old traditional or indigenous method dominated by the power structure. In order to protect the interest of the "influential persons", the MC rarely disclosed the operational records to the members. If the general members would have taken more interest in the activities of the cooperative the MC would become effectively accountable to them.

At the initial stage however, the cooperative was operating smoothly. The villagers had a good expectation on cooperative

activities. They were trying to participate in different activities of the society. The MC was thus under a system of accountability to the general members.

But after a period of time the cooperative started facing problems. The monthly general meeting of the cooperative was not held regularly. Attendance in this meeting was very low. Similar was the situation with the managing committee meetings. In order to activate the society and make it more accountable to some appropriate authority, a by-law was prepared and approved by the co-operative department.

The society was registered with the co-operative department in 1994. It thus came under the supervision of the said department and BRDB. Though a savings account was opened in the Bank in the name of the cooperative, but transaction was not done regularly. The Manager kept the cash in hand. The external accountability of the co-operative in the form of annual audit and supervision by the co-operative department and BRDB could not bring the society on the track. Only about one-fourth of the members were registered with the co-operative department. Thus resources of the majority of members remained outside supervision and audit which have not yet taken place.

The cooperative started its credit operation with the savings of the members. It has disbursed Tk. 1,96,000 on two occasions. About 14% of the credit money has not yet been repaid by the members of cooperative, particularly by the members of the Managing Committee.

Thus the members of the cooperative lost their interest in the cooperative society and about 250 members withdrew their savings from the society fund. Thus it could not develop as an institution of bottom-up planning with popular participation. The lesson was that the accountability of the society to appropriate authority was not working effectively.

## **2.2 Village Development Committee**

At present the cooperative activities are moribund. Observing this situation in the cooperative society the project personnel and the villagers started to think about developing an alternative village development unit at the village level which would have effective accountability to the nearest local bodies. Both have come to a consensus to form a Village Development Committee. This committee was formed in January 1995. The Village Development Committee (VDC) consists of 15 members. The members of the VDC selected two persons, one as Chairman and another as Manager on mutual understanding. From every Bari one member is represented in the committee. The meeting of the VDC is held once in a month to discuss various problems of the village and also to make a village development plan. The field staff of nation building developments (NBD) also attend the VDC meeting on occasions to discuss their activities within the village area.

## **3. Linkage**

The investigation conducted in the first phase of JSARD project revealed that (1) there is an institutional discontinuity between local administration and village, (2) no suitable saucer exists for administrative service in the village. In order to address those problems and establish continuity of linkages at different stage, the following measures were taken.

### **3.1 Union Development Programme**

For reflecting the villagers needs in local administrative work it would be better that Union development programme be planned at Union level through discussion with the representatives of all village development organisations in a union. In case of Subidpur union a Union Development Committee (UDC) has been formed as a link institution between village and the Thana. The VDC is treated as a rural development unit in Fanishair village. All kinds of information from NBD at Thana level come to the VDC through union coordination meeting organised by the UDC. The VDC acts as an information receiving unit and takes necessary action according to the information received. Union Development

Committee, which is composed of representatives of Farishair gram (F gram), adjacent two grams (T gram and L gram), Union Chairman and Union members in the three grams, was established in March 1994. But at that time, the function of the committee was limited as mediator and co-ordinator for planning and implementing the fish rearing programme in 175.1 acres ring levee and for delivering the services of Block Supervisor and Livestock Inspector. While monitoring the service delivery of Block Supervisor (BS) which was co-ordinated by the Union Development Committee and delivered to three grams it was noticed that villagers were not so much interested in the services of BS, that the information and services supplied by BS had not been effectively delivered. Apparently therefore, programmes primarily planned by central Government does not necessarily contribute effectively for activating local economy or for improving welfare condition of an area. Second consideration was that if programmes are made on the basis of the real needs of villagers, there is possibility of it becoming more effective. The issue is, however, its feasibility and contents of programme. A number of questions are related with this, say, what would be the unit base of the programmes to be made, gram or Union; what would be the structure of the Union Development Committee (if the plan is made in the unit of Union), who would co-ordinate the activities at Union and Thana level; whether only infrastructure building is suitable for local level planning, and so on. Although the issue of local level planning is important in rural development, this has been rarely raised in our project. The unit in which some action programmes are undertaken has not considered the questions deeply. The main purpose to establish Union Development Committee, union development programme and attend Thana coordination meeting is to directly address these issues by means of monitoring the action programmes.

In February 1995, union development programme, which was considered as a local level plan at union level, was planned under the Union Development Committee and at the same time, all activities of administrative officials at union level were designed to be delivered to the three grams under the coordination of the Union Development

Committee. The decision on every programme is roughly made in the meeting of the Union Development Committee; but the decision in detail is made by each sub-committee established on the basis of every programme when the occasion demands, for instance, like fish fry committee for fish fry nurturing programme. These sub-committees with union level official is of major importance to run the programme. In case of "suppling fish fry for enhancing pisciculture" programme, three villagers selected from three grams purchased spawn numbering approximately three lakhs and nurtured in nursery ponds with technical assistance of Thana fishery field assistant. Technical support of union level officials is indispensable to go on with union development programme. Block Supervisor, livestock field assistant, health inspector have been working for planning and implementing the programme of "introducing new varieties of poultries" and "delivering some frequently used medicines", respectively. Union level officials, however, have original assignments given from central government. Some of their original assignments are included into Union development programme, or information on their original assignments is delivered to village by means of information board setup in every shomaj of the three grams. For example, vaccination for poultries and livestock by livestock field assistant was included in "introducing new varieties of poultry" programme, and the schedule of vaccination in each shomaj was approved in the meeting of Union Development Committee and was informed by means of information board. The service of the BS, which is his original task, is included in "introducing and diffusing commercial vegetables and useful tree" programme and his visiting date to three grams is notified through the information board. BS has been carrying out his original task, giving technical advice to farmers, while working for union development programme. On the other hand, union level officials who are not involved into Union development programme in this period, also attend the Union Development Committee meeting and their programmes in villages, for instance, field visit schedule of family planning field assistant, were informed by means of information board. The function of Union Development Committee is not only to plan and implement Union Development Programme but also to co-ordinate the services delivery by union level officials.

BRDB is involved in planning and implementing union development programme as co-ordinating organisation. BRDB's Union Inspector is assigned to write monthly progress report on every union development programme which is to be submitted to TRDO to be presented in the Thana co-ordination meeting. The progress report in February and March has already been presented in Thana co-ordination meeting held in March and April.

The Union Development Programme prepared for February, 1995 - June, 1995 as shown in the following table-1 was implemented satisfactorily. The UDC finding the success of the UDP, prepared another UDP for the period from July, 1995 to November, 1995 as shown in table- 2:

Table - 1: Union Development Programme (Feb. 1995 – June 1995)

- a) Introducing and diffusing commercial vegetable (ginger, kackrol) and useful tree (papaya) programme
- b) Introducing new varieties of poultry (cock, hen and duck) programme
- c) Delivery of Thana information
- d) Delivery of some frequently used medicines
- e) Supply fish fry for enhancing pisciculture
- f) Technical support of Thana fishery field assistant for fish rearing programme in 175.1 acres ring levee
- g) Road construction.

Table - 2: Union Development Programme (July-November, 1995)

- a) Introducing new varieties of poultry (cock, hen and duck) birds.
- b) Delivery of Thana information
- c) Delivery of some frequently used medicines.
- d) Road construction
- e) Construction of bamboo bridges
- f) Tree plantation programme
- g) Poultry development training programme
- h) Technical support of Thana Fishery Assistant for fish rearing programme in 175.1 acres ring levee and also monitoring.

### 3.2 Thana Coordination Meeting

It is desirable and rational also that the Union Development Programme be examined at the Thana level for mutual understanding, sharing of responsibilities by the NBDs, information dissemination by them, readjustments in the plan if necessary and inter-union coordination. This arrangement is seen as horizontal and vertical linkages. The linkage system take the advantage of the Thana co-ordination meeting in which all Thana level officials take part for discussing the union development programme. In the meeting held on 28th March, the union development programme (Feb. 1995 - Jun 1995) was proposed by TRDO and was approved by all Thana level officials including TNO. In the meeting held on 27th April, the progress report was read out by TRDO and was approved by all Thana level officials. As written above, TRDO has been serving as co-ordinator and link man at Thana level in co-operation with TNO, and at the same time represents BRDB as required by the terms of the projects.

### 3.3 Thana Information Programme

The Thana Information Programme was started in January, 1994. Since the introduction of Union Development Programme it became its component. The Inspector of the BRDB collect information about the service delivery of the NBDs on monthly basis. The Inspector then hand over the copies of the information to the secretary of the UDC and the Secretary attach these copies in all information boards. In this way the villagers come to know about the availability of services and supplies delivered from the Thana NBDs.

Rough sketch of the linkage model can be seen in the following figure (Figure-1)

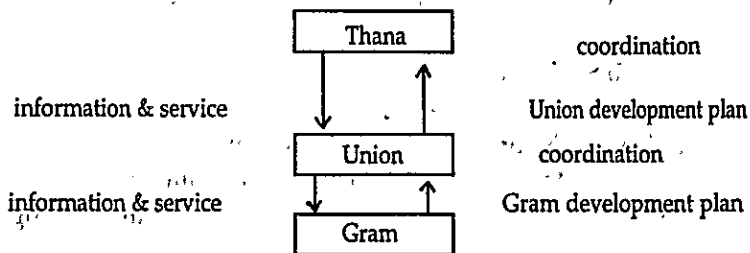


Figure -1 Rough sketch of linkage model



The evolution of the linkage system can be systematically described as follows:

- Co-operative Society at village level with poor accountability to BRDB and co-operative department at Thana level.
- Village Committee with reasonably effective accountability to local body (UP and UDC)
- Union Development Committee (UDC);
  - a) Union development plan - a consolidation of village development plans.
  - b) Representation in the Thana Co-ordination meeting to put forward the needs of the villages, i.e. the village and union development plans.
- Thana Co-ordination Meeting
  - a) Presentation of village reports and their needs.
  - b) Collection of information of services and supplies of the NBDs.
  - c) Dissemination of the information down to the grass-root level.

The broad structure of the linkage system can be seen in the following table (Table -3)

#### **4. Farming technology**

##### **4.1 Description of Technologies**

The technologies tried under the project are based on the practical experience to make it a sustainable one. Description of the technologies may be found in the following paras.

Most of the land in Bangladesh is classified as deltaic in large scale geographical point of view. In medium scale geographical view point, however, geographical environment as well as hydrological environment differ in every area. Corresponding to it, existing agricultural system, local technology and innovative technology which are recommended to be extended in an area, differ in every area accordingly. Agricultural development has

Table 3. Broad structure of linkage model

	Physical set-up	Coordination	Function
Thana	Thana development complex (existing)	Thana coordination meeting (existing)	Coordination on information and service delivery Make and implement Thana development plan on the basis on Union development plans
Union	Union development complex (New) Notice board	Union development committee (New) Union coordination meeting (New)	Coordination on information and service delivery Make and implement Union development plan on the basis of village development plans
Ward	Contact points for service (New) 2 points for each ward		The place to deliver services
Gram		Gram committee (New) Para (soma) meeting	Make village development plan The place wheres information is given
Para or Soma	Notice board		

Remarks: The idea of "physical set-up" came from the activities of Daskhin Chamuria and Austodona site.

generally been considered as making the way of introducing and extending innovative technology. Because most of innovative technologies are at the same time alien technologies for farmers in an area, technologies take root by way of conventionalising process of these alien technologies. In this paper attempts are being made to analyse mainly the following two points. First, it is that giving some findings for formulating conventionalising process of innovative and alien technology by means of actually chasing the process through some field experiments. Secondly, it is that to consider what kind of agricultural technology is appropriate for agricultural development at village level in the deeply flooding area of the old Meghna estuary flood plain. The deeply flooding area of the old Meghna estuary flood plain is selected as the place where our field research and field experiments are conducted, in other words, project area. It is believed that to consider the agricultural development at village level, it is necessary to look deep into the conventionalising process of alien and innovative technology and to search for its process making use of the conventionalising stages into agricultural extension programme of local administration.

Innovative technologies cover all aspects of agriculture, paddy, vegetables, fish, fruits and poultry. In this field experiment, special emphasis was given to fish cultivation. Because it can make use of the location specificity of the project area where land submerges deeply for a long duration in rainy season. Relatively large portion of lands in the village (80 to 90%) of the project area are marshes. In spite of these favourable condition for pisciculture, the area in which pisciculture was actually undertaken is less than 10 per cent of total village area.

The following methods were adopted to make experiments and analyse it. First, a broad area survey was conducted to identify local technologies which were practised in small area. Secondly, some innovative technologies were introduced in the project villages in the form of demonstration plot in cooperation with village organisation and officials of Government department to search for the possibility to conventionalise it. Then, some technologies, which were considered to have conventionalised were

extended with the help of village organisation, Union development committee and concerned Government department.

These field experiments have been made as one of action programmes under JSRDE project. Adjacent three *gramis*, namely Fanishair, Telishair, Lakshipur villages in Subidpur east Union, Faridganj Thana are the places of these pisciculture experiments.

The objectives of the experiment are to :

- (a) develop fish production in the village area with the participation of village people;
- (b) introduce a new type of land use system that would be acceptable to the villagers;
- (c) disseminate modern fish culture technology to the villagers;

#### 4.2 Pisciculture Programmes

##### 4.2.1 Introduce paddy cum fish cultivation in small polder

The cooperative society was involved in preparing the plan and to operate the programme. JSRDE field staff and trained person of the co-operative society were responsible to implement the programme. The society selected two polders on contract basis. The area of the two polder was 1.85 and 1.50 acres respectively. The Managing Committee was responsible to take care of the project.

Four thousand pieces of fish fry with 6-8 cm long were released in each polder. Due to heavy rainfall the embankment of 1.5 acres polder was broken down making room for the fish fry to flow away with flooding water to the adjacent pond. The cooperative could not continue fish culture in this area. In another polder (1.85 acres), the fish fry grew to about 30 cm. long at maximum. The fish fry that grew 15 cm. and above were sold to traders after harvesting, while those who grew less than it were released to other ponds operated by the co-operative. The profit earned from this pisciculture was taken by the cooperative.

Landowners of these two polders who observed the pisciculture in the year 1993, was motivated to fish culture by themselves.

They cultivated fish in these polders in the following year i.e. 1994.

#### 4.2.2 Pisciculture in Leased Ponds

Initially, the idea of pisciculture in leased ponds was offered by the JSRDE project staff. Later the society discussed the plan in its general meeting and the MC took the initiative to implement the programme. The cooperative took five ponds on lease, two to be used for the fish nursery scheme. The cooperative also took decision to repair the banks of individual ponds to make them physically suitable for pisciculture. The members did some works voluntarily to save the fund of the society including logistic supports.

Pisciculture in leased pond was a programme of the society. The Managing Committee of the society managed the programme. Its main objective was to increase the income of the society to be shared by the members. Thus the village institution was responsible for its maintenance.

A total of 12,800 fish fry from fish nursery was released in the leased ponds. The fish was harvested and sold to the fish traders. The cooperative earned 29,000 taka from the programme.

This programme has a good impact in the village area. The villagers have learnt modern fish culture technology from this programme. Now they are trying to practice this technology in their own ponds.

#### 4.2.3 Fish Nursery

Two of the leased ponds were used to develop the fish nursery programme. The programme was implemented in May, 1993. Fish spawn was collected from private hatchery and reared them upto fingerling size. Different types of fish species, namely *Ruhi* (250 gm), *Mrigal* (500 gm.), *Katla* (125 gm.) and Bighead (125 gm) have been released in these ponds. The village cooperative society managed this programme. The fingerlings were sold to the local

villagers at a subsidised rate to encourage them for fish cultivation. All kinds of cost was met up by the JSRDE project.

Another fish nursery project was implemented with the help of JSRDE project in the year 1994. Fish seed was reared upto fingerling size. Six ponds were leased by JSRDE project from the village pond owners for this purpose. These ponds were leased for one year at a cost of Tk. 18,000. The field staff of the project were directly involved in the implementation of the project. Different types of fish species were released in these ponds, namely *Carpio* (4,75,000), Bighead (3.5 kg), Silver Carp (1 kg.), etc. at a cost of Tk. 79,885. About 7.5 lakh fingerlings were produced in those ponds. These fingerling were produced for the big fishery project of JSRDE and they were released in that project accordingly. Some of the fingerlings were given to the Fanishair cooperative society's fishery project.

The project was initiated as an experiment to ensure easy availability of fingerlings in this area. It can be said that the project is successful to a great extent in this regard. This type of nursery programme is under implementation in the current year also.

#### 4.2.4 Fish Rearing in Medium Size Ring Levee

Survey made during the first phase of the project (JSRDE) pointed out the need of a medium size ring levee with a view to demonstrating better and suitable land use system in the deltaic area. In fact, the villagers themselves tried to prepare such a plan in 1986 by constructing embankment using the CARE road. Considering these facts a fish culture programme in medium size ring levee was initiated by the JSRDE project in 1994. The land area under this project is about 175.1 acres. It is surrounded by a road constructed by CARE. The project area is composed of lowland (160.4 acres), six ponds (4.04 acres), twentytwo *dobas* (1.41 acres), twentytwo *gors* (2.40 acres), and one canal (6.50 acres). The three villagers namely, Fanishair, Talishair, and Laxmipur are the owners of these land and water bodies. The area is frequently

affected by flood and during the rainy season the farmers cannot cultivate the land. The water bodies can be used as a shelter points for the cultivated fish species. The low land consists of 728 plots owned by 238 landowners. The fish fingerling produced in the nursery ponds were released in the project area on 30th June after the water depth in lowland increased. In all, 8,43,000 fish fingerlings of five varieties were released in this area. From the middle of October, as the water depth in lowland started to gradually decrease, fishes started gathering in ponds, *khals*, *dobas*, *gors* and canals. The fishes were harvested from these water bodies during the month of October-November, 1994.

A Union Committee was formed under the chairmanship of the UP Chairman for supervising and coordinating the project activities. The Union Committee was formed with the representatives of each village organisation. The Union Committee and JSRDE project jointly operated the pisciculture project. All issues about pisciculture of the area were supposed to be discussed in the committee meeting. Though late in framing the union committee, its role was found to be very necessary. This committee ultimately gave birth to the development of Union Development Committee (UDC).

The initial investment and production costs for implementing the experiment was borne by JSRDE project.

Decision on how to harvest and how to sell the matured fishes were made by the fishery committee, a sub-committee of Union Committee. Fishery committee consisted of two delegates from each village and the Secretary of Union Committee. This fishery committee supervised and monitored the fish harvest and marketing process.

The project though could not earn any profit, had a good demonstration effect in this area. The people are motivated for fish culture. Union Development Committee decided to implement the pisciculture in 175.1 acres polder in the form of joint share system. They have already completed the preliminary works. It

was observed that about 13 small scale polders have been prepared for fish culture in the year 1995. These 13 small scale polders belong to the three villages, namely Talishair, Fanishair and Laxmipur. The following table presents a brief cost and return of different kinds of pisciculture experiment.

**Table 4 : Cost and Return of Different Kinds of Pisciculture Experiments**

Indicators	1.85 acres pisci.		Gor pisci. culture	175.1 acres pisci. culture	2.8 acres pisci. culture in Talishair
	1st year	2nd year			
Production cost :					
Fish fry	2,845	2,500	9,090	124,009	8,200
Feed	-	-	-	-	700
Labour cost	510	600	1,950	35,212	400
Harvesting	1,060	525	690	9,036	600
Drainage	700	1,500	4,750	3,042	700
Night guard	-	-	240	5,800	-
Sub-total	5,115	5,125	16,720	177,099	10,600
land rent	2,000	-	7,150	212,510	4,800
Initial invest.					
Earthfilling	440	-	28,670	2,670	-
Culvert	800	-	1,850	13,360	-
Grand total	8355	5125	54390	426	15400
Gross income	21,904	7,393	38,500	155,204	23,500
Net income :	1,3549	2,268	-15,890	-271,435	8,100

Remarks : Net income = gross income - (initial interest / 15 ). The durable years of embankment and culvert is considered 15 years.



**Table - 5: The regulation established by Union Development Committee on the pisciculture experiment in 175.1 acres polder**

**Distribution of net income**

- a) After the funds for preparing the next year's programme is saved in a bank, half of the rest of the net income is to be distributed to landowners and the rest to be distributed to the representative organisations in the shomaj of the three *grams*.
- b) If the experiment fails, JSRDE project would pay the amount of compensation to landowners.

**The cost of implementing the experiment and its share of villages**

- c) Out of the overall costs for implementing the experiment, all costs for constructing a bamboo bridge, which is a part of embankment, is to be borne by the villagers.

**Land rent, etc.**

- d) Estimating the gross income received from the fish catch in the preceding years in every pond, *gor, kua, doba*, the same amount of money would be paid to the landowners as land rent.
- e) Some farmers used to harvest fish naturally grown in the canal. No compensation is to be given to such farmers. But, they would be given priority to be employed as night guards and wage labour for the experiment.

**Others**

- f) If someone steals fishes, he would face trial at Union Parishad and Tk.1,000 is to be imposed as minimum amount of fine.

**4.2.5 Fishery Training Programme**

Before initiating the fishery programme in the village two members from the Fanishair cooperative received training in a private hatchery for two weeks in Comilla. The cost of the training was met from JSRDE project. The trainees from the village were selected by the members of the cooperative in its general meeting. The trained personnel were involved in fishery programme.

### 4.3. Other Programmes

#### 4.3.1 Livestock and Vaccination Programme

The main objectives of this programme is to link villagers with the Thana level nation-building departments for getting services, to create awareness among the villagers about importance of vaccination, and to reduce the rate of mortality of cattle, goat, and poultry birds. The Thana Livestock Field Assistant has already informed about his village visits schedule through the Union Committee meeting for the villagers. He has been visiting the village according to his schedule regularly to vaccinate poultry birds and cattle heads. A good demonstration effect has been observed in the local area. The other adjacent villagers are also taking the initiative for getting services.

#### 4.3.2 Demonstration Plot

The existing system of setting up demonstration plots by the Block Supervisor (BS) is that one demonstration plot is set up in one Union which has little or limited positive effect on the villagers. Therefore, a plan was drawn to set up road side vegetable demonstration plots in five *somaj* with the help of the BS. The idea behind this was that the villagers would come in touch with the BS and would be able to see by themselves the demonstration plots.

Out of five *shomaj*, only three *shomaj* could set up demonstration plots. The UDC could select the site of vegetable demonstration plots in only two areas. Later the UDC supplied seedlings of papaya to villagers at a moderate rate. The villagers received the information about vegetable growing, but they did not utilise the services of the BS. Once again it establishes the truth that 'the horse can be taken to the river bank, but it cannot be forced to drink water'. Thus "introducing and diffusing commercial vegetables (ginger, kakrol, etc.) and useful tree (papaya) programme" could not draw the interest of the villagers. The VC thus could not effectively utilise the services of the BS. However, the linkage with agriculture department at Thana level was well

established and the villagers could know in advance where and when the BS and other related personnel would be available for services and supplies.

#### **4.3.3 Banana Demonstration Programme**

Banana cultivation is not uncommon in the countryside, but cultivation of improved banana on commercial basis is almost absent in the whole Faridgonj Thana. The project thus started with the following objectives :

- i) To demonstrate the economic viability of banana farming to the villagers.
- ii) To establish a linkage between the villagers and the concerned Thana level nation building department.

Banana demonstration programme was started in Fanishair village in the year 1992. Faridgonj Thana Agriculture Office was implementing this programme with the help of JSRDE project. A village farmer gave his plot for demonstration. Owner was responsible to take care of this programme. A total of 150 saplings of sagar variety were brought from Dhaka and planted in a plot of 0.15 acres. All the necessary inputs like fertilizer, insecticide, etc. were supplied from Faridgonj Thana Agriculture Office. The Thana Agriculture Officer and the Block Supervisor have been visiting the project and providing technical services.

The results of the banana cultivation was satisfactory. The land owner earned a handsome amount of money from this plot. The land owner has been continuing this project by himself. The villagers were also taking interest in banana cultivation. Some villagers have already collected banana saplings from this plot for cultivation. The project has established a healthy linkage between the Thana Agriculture Office and the village people.

#### **4.3.4 Small Ring Levee programme**

A small ring levee project was initiated in 1993. Four types of lands - high, medium, low and small ponds formed the ring

levee. Its management was under JSRDE project. The field staff of the project directly supervised the activities. Except pond area, sugarcane, different types of vegetables, rice and fruits were cultivated in other three kinds of plots. Fish was cultivated in the pond area. High land was used as vegetable seedbed. Seedlings were sold to the villagers. All kinds of logistic supports were arranged by JSRDE project.



*A villager is seen taking weight of green papaya which was produced in the levee of the medium size ring at Fanishair, Chandpur.*

This programme had a good linkage with Thana Agriculture office. The Union Block Supervisor (BS) visited this area every week and gave necessary advice on agricultural aspects. The produce of this programme were sold to the villagers. This programme had a good demonstration effect on vegetable cultivation in the surrounding areas. Some villagers became interested to cultivate cauliflower, cabbage, tomato and collected seedlings from seedbed.

#### 4.3.5 Duck and Poultry Rearing Programme

"Introducing new varieties of poultry (cock, hen and duck) programme" has been considered in the UDP as a promising programme. The draft making committee discussed with the Livestock Field Assistant (LFA) about the programme. They decided that initially demonstration farms were to be set up at *bari* level. The LFA would go round the *baries* to inoculate the poultry birds as a preventive measure. High-yielding poultry birds were supplied to the demonstration *baris* at half of the marketing price. While working for this UDP, the LFA gave his departmental services to the villagers. He inoculated cattle, hens and ducks while taking care of the demonstration *baris* in three *grams* (villages), namely Fanishair, Telishair and Laxmipur. The *bari* demonstration farms have started showing positive results. Many villagers have already approached the UDC to have new varieties of poultry birds and ducks at half of the market price. The UDC has a plan to take up the matter in their next plan. However, time has not yet come to evaluate the programme, because the programme is a recent one.

#### 5. Off Farm Activities

The scope of off farm activities depends on many factors, e.g. good communication system, linking the village with the growth centres, power supply, information net work, etc. The village lacks good communication system, power supply and to some extent flow of information. In order to address those problems, some initiatives have been taken by the project. In order to develop the link roads within the village some earthworks were undertaken where landless labourers were employed. The society advanced loans to its members to start small trades.

The society has a plan to start rice husking mill, oil mill if electric supply is made to the village. This will also provide employment opportunities. Government has a plan to establish a good net work of link roads through the village to facilitate trade and employment. JSRDE project has taken initiative to link the village with the power supply network of Pally Biddut Samity. Through

this project an information network has been established and it is expected that this will facilitate the rural poor to get information of employment opportunities. Besides, quite a number of people of the village are already employed in the growth centres and cities as service holders and in business.

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#### **8.2.4 Discussion on the papers**

After presentation of the papers the participants including village representatives, Field Staff actively participated in discussion through questions, comments and putting suggestions. The following features of the villages came to light.

- I. **Panchkitta**
  - (a) Through this project active participation in the decision of development of the villagers in all stages planning, implementation, monitoring and evaluation is ensured.
  - (b) Project interventions in power tiller, goat rearing, milch cow rearing, paddy-cum-fish culture, quality seed cultivation and joint vegetable marketing was dominant, rather villagers contribution is not so much visible.
  - (c) Linkage with union parishad is tried but effective response is not received.
  - (d) Through occasional training programme villagers came to know about a few of the NBD staff. Regular visit by them is not ensured.

## II. Austodona

- (a) Establishment of linkage of village cooperative society with union parishad and NBD staff is established through village and union coordination meeting.
- (b) Alleviation of information poverty is being done through news bulletin and notices; schedule of visit by NBD staff is ensured by Information Board in conspicuous places of the village and different location within jurisdiction of the union.
- (c) The service delivery by the NBD staff has been effective, efficient and frequent.
- (d) New crops i.e. vegetables, soyabean and improved variety of paddy has been introduced.
- (e) Small scale irrigation is more feasible than DTW irrigation.
- (f) Cooperative society in the village are not functioning as per expectation due to lack of understanding and motivation among the villagers.
- (g) Small credit is contributing to raise the assetless villagers to the level of self reliance.

## III. Fanishair

- (a) Paddy-cum-fish cultivation in the ring levee of different sizes become popular through fish cultivation in the big ring levee through project intervention. Farmers of adjacent areas are cultivating fish in their levee through joint effort.
- (b) Small infrastructure can be built by project intervention and participation of the villagers.
- (c) Dhaincha is cultivated for using as green manure.
- (d) Vegetables cultivation in the embankment of paddy field has become popular.
- (e) Cooperative society has become defunct due to management problem.

- (f) Linkage is being tried through union coordination meeting and attending meeting of the TDCC. Moreover, information is collected through Inspector of TCCA, BRDB, cyclostyled proforma and set in the notice boards of Fanishair, three adjacent villages and union parishad.

### **8.3 Business Session-3**

#### **8.3.1 Formation of groups and preparation of group reports**

Ms. Saleha Begum, Project Director, JSRDE project took the Chair. Mr. Haruo Noma, General Manager, JSRDE Project discussed on the division of groups and highlighted the assignment of the group through an outline which was prepared earlier. Then the participants were divided into four groups. These are Group A, B, C and D. The group sat in 4 different rooms. In those groups participants from all categories were included. After detailed discussions the groups prepared group reports on the four Basic Approaches of the JSRDE project.

### **8.4 Business Session-4**

#### **8.4.1 Presentation of group reports**

The session was Chaired by Mr. Mokbul Ahmed Chowdhury, Director (Administration), BARD, Comilla. Mr. Md. Mazharul Islam, Mr. Swapan Kumar Dasgupta were rapporteurs. The following group reports were presented in the session:

#### **GROUP - A**

#### **Establishment of Village Institutions for Rural Development**

##### **(a) Types of Group**

##### **i) Comparison between informal and formal :**

The group thinks that both formal and informal groups have their advantages and disadvantages. The cooperative has official recognition and acceptability. It gives some sort of security image to the general



members. Cooperative rules and regulations sometimes stand on the way of flexible functioning. On the other hand, Village Committee has no legal recognition, but it has greater flexibility. The Village Committee should have some form of constitution; it should be based on simple rules and acceptable to the general villagers. The group feels that the Village Committee should have a Managing Committee with representation from different socio-economic strata and other groups (women, youth). The Village Committee should be for two years. The Managing Committee should be formed on a democratic basis. The Managing Committee can form sub-committee as and when necessary for specific activities.

Regarding the type of Village Institution, the group consensus is that there should not be a single rigid institution for all villages. The type of village institution, either formal or informal, should be decided by the villagers themselves according to their choice.

**(b) Village Leader**

**i) Comparison between traditional and new :**

The traditional leaders are still predominant, but new leaders are emerging. These new leaders are young educated youths. Political party affiliations affect village leadership and sometimes create conflict among villagers. In case of common interest activities of the groupings do not create problem and they generally agree to cooperate in such activities. There are some opportunist leaders who sometimes try to create problems. Such problems are overcome by other leaders through group action:

**ii) Relationship of leaders with villagers**

There has been changes in the relationship between leaders and villager. Previous authoritarian form of

relationship is giving way to more informal relationship between leaders and villagers. The leaders also need to accept that change in order to keep and develop their leadership position as they have some political aspirations. Regarding a question as to how the village leaders make the selection of beneficiaries e.g. in case of distribution of loan, it was said that a priority list of the needy beneficiaries was made based on some criteria e.g. those who own upto .50 acre of land. It was also expressed that in few cases some compromises had to be made to select some persons who do not fulfil the criterion but such compromises had to be made to avoid troubles.

iii) **Contribution of leaders in development activities**

The village leaders make their contribution in rural development roles e.g. disseminator of development information to the villagers, ventilator of the problems of the concerned village and villagers to higher authorities at Union and Thana levels and also to Hon'ble M.P. in one case, through leadership role under JSRDE project, etc.

(c) **Unit of Rural Development**

The unit of rural development should be that unit which has a community feeling as well as a definite geographical boundary and which is manageable as an unit for rural development. A Para or a Gram which fits in to this definition should be the unit of rural development. Households should, however, receive due focus in development activities and in measurement of performance of development activities.

(d) **Recipient of benefits**

All the three groups - Lower, middle, and upper - are recipients of benefits.

All the three groups more or less are benefitted from "Common interest" activities. It is not possible to quantify the relative extent of benefits received by the beneficiaries of the three groups from the economic activities. Special focus on the lower group is considered necessary. In two areas efforts are being made to create a fund for the poor to help them to meet crisis situations. Creation of such fund is considered essential.

**(e) Mode of service and information delivery system**

The modes of service delivery are through the personnel of nation building departments, mostly based at the Union level and through NGO. More effective linkages need to be established between village and higher levels for having regular and more effective service delivery. Modes of information dissemination should be informants and notice boards. These modes should be continued by the village institutions even after the withdrawal of the JSRDE project.

**(f) How to motivate villagers to bear the cost of development as beneficiaries**

Some systems are already there to mobilise local resources to certain extent. The methods of resource mobilisation are however, variable e.g. through direct contribution out of the profits of the economic activities. It is, however, recognised that motivational encouragement are needed to create awareness about the need for more local resource mobilization.

**(g) Findings**

- i) Both formal (cooperative) and informal (village Committee) village institutions are operating in the project villages. While Village Committees are operating in 2 villages, Village Cooperatives are working in 3 villages (in one village namely Panchkitta, both the cooperative and the Village Committee Co-exist). Informal community development organisations are more in number than formal ones.

- ii) All the five reports do not provide specific information on the nature of village leaders i.e. whether they represent the traditional or the new type. Some reports, however, indicated that they are traditional village leaders or matabbars.
- iii) Interest rates charged by different village institutions ranged from 7.5% to 60% per annum. This points to the fact that very different interest rates, some rather high, can be decided by community development organizations set up on some principles. These divergence in interest rates warrant consideration, particularly in order to examine the possibility of lowering down the interest rates which are on the highside.

**(h) Sustainability**

Sustainable village institutions are essential to continue the development activities. For achieving sustainability, the group feel the following will be necessary :

- i) Active, honest and competent leadership. Adequate and appropriate provision of training is needed.
- ii) Seed capital to create a development fund along with local resource mobilisation.
- iii) Development of managerial competence and provision of necessary training for that.
- iv) Village Institution should function in a participatory and transparent manner with a system for accountability.
- v) Official recognition of Village Committee to interface with other development agencies at Union and Thana levels;
- vi) An institutionalised system should be set up by the government for creating effective linkages between village institution and higher level structures i.e. at Union and Thana.

- vii) BRDB may be the catalyst agency after the withdrawal at JSRDE project. Concerned officials of BRDB need to be imparted appropriate training on community development and on other required fields.

### **Group- B**

#### **Strengthening of Linkage Among the Village and Local Level Institution and Government Line Department for Rural Development**

The group members discussed in detail about the experiences which are being implemented for the linkage system. In the discussion status of linkage problems and feasible procedures were highlighted. On the basis of above experiences the group made following draft suggestions which may be considered by the participants of the workshop. If they agree these issues can be recommended as a framework for efficient rural development in Bangladesh.

- a) Chairman of the Union Parishad will preside over and coordinate the activities of the project at Union level. All the staff/officials of nation building departments will attend the coordination meeting. The meeting will be held in union office but it may be arranged in the village on test basis.
- b) All nation building department will appoint/provide their staff/officials at Union level where there is no staff.
- c) Government will give responsibility to Union Parishad Chairman to coordinate/maintain liaison with nation building departments.
- d) As per Government decision, Chairman of Union parishad will supervise/monitor the activities of nation building departments at Union level. Staff of Nation Building Departments will be accountable to the Chairman of Union parishad.
- e) TRDO will call/serve notice for coordination meeting of union level and all staff of nation building departments will attend the meeting.

- f) Government will have to establish office at Union level for nation building departments like TTDC. Until establishment of office at Union level, Government will provide incentive to the staff for attending the meeting.
- g) An Inspector of BRDB will be posted at Union level and his designation is to be modified. He will act as Secretary of the Coordination meeting.
- h) An ARDO will be posted at thana level for liaison and coordination of the linkage system at Thana. He will motivate the villagers to be involved in different development activities. He will take responsibility to mobilize resource from/to villages for development of minor infrastructure and preparation of need based planning.
- i) Village leader and Union Inspector will maintain notice board at Union /Village level to disseminate information for the villagers. The NBD staff will maintain diary to keep record of their all types of activities both personal and officials.
- j) Under the leadership/Chairmanship of a public representative an Advisory Committee will be formed at the Thana level where TRDO will act as Member-Secretary of that committee. The Committee will meet quarterly. This committee will work as problem solving authority between the departments.
- k) BRDB office at Thana level will be used as Service Centre. Two other service centres will be established at a fixed place in the ward level.
- l) Villagers will be involved in the planning process of development of minor infrastructure and they will also prepare project proposal.
- m) Villagers will be motivated to pay their tax, participate in construction of minor infrastructure by subscription or voluntary labour and some interventions from the external sources.

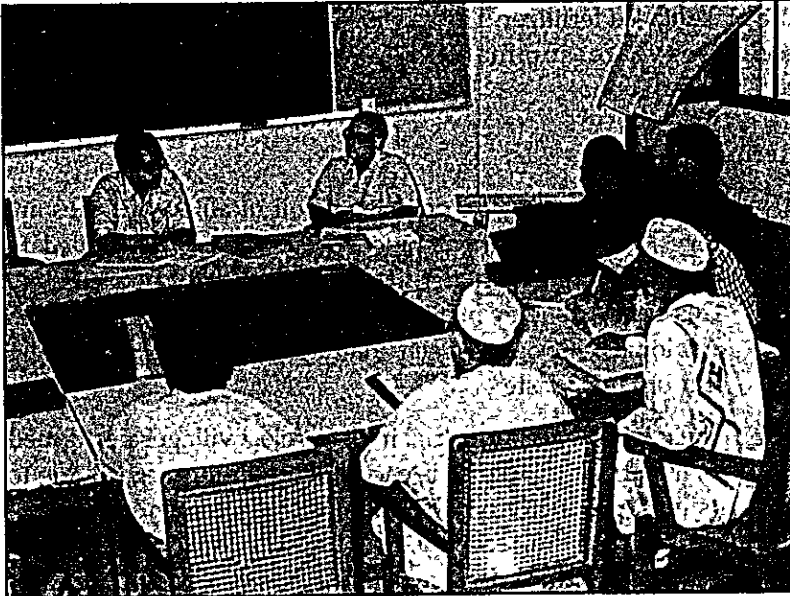
## Group-C

### Farming Technology

Technology refers to the combination of knowledge, inputs and management practices which are used together to productive resources to gain a desired output. (ILEIA, 1991). It is a design for instrumental action that reduces uncertainty in the cause effect relationships in achieving desired outcome. The technology may be Biological, Chemical, Mechanical and Cultural.

The objective of use of technology is to raise the productivity of land, labour and different enterprises like crop, animal and fishes in the production processes. It is an instrument that can upgrade the quality of life of human being. The technology not only brings benefits but it also causes adverse effects in the production systems.

Utilization of technology for the benefit of human being is a difficult task. It requires a strong institutional framework for the dissemination. However, some of the technologies have got



*A scene of group discussion in the Workshop on Final Review of the JSRDE project held at BARD, Kotbari, Comilla from 9th to 11th July, 1995. Mr. A.K.M. Obaidullah, RPC, JSRDE project and Mr. Maula Bakshia, Joint Director, BRDB are seen with other group members.*

universality and can easily be accepted by the individuals. The Bangladesh agriculture has already experienced a good number of technologies in recent years, which have been able to raise the productivity of crops of which some of the technologies are improved. This imported technology may sometimes create the problem of availability. The JSRDE project addressed this issue of both locally available and environmentally sound technology in its five sites namely Aira, Daskhin Chamuria, Panchkitta, Austodona and Fanishair. In the Bangladesh farming environment, specially the crop environment, the soil suffers from organic matter depletion. This has created a great concern in raising the productivity of crops. As most of the soil of Bangladesh contain less quantity of organic matter than the requirement of the normal crop growth, these resource should not be allowed to deplete. There should be arrangement in Farming Systems and crop management for its continuous replenishment for sustainable fertility and productivity. The JSRDE project also addresses to this issue in terms of green manuring, compost making and the use of balanced fertilizer. The activities of JSRDE project in farming technology are summarised below with conclusion and recommendation.

### Recommendations

- a) As the organic matter content of soil of all the villages are very low, management practices should be developed to enrich the organic matter to sustain productivity of the soil. This can be done by manipulating cropping pattern, addition of biomass through green manuring, compost, cowdung and organic waste.
- b) The cropping patterns trial in the project villages performed well. Farmers response is encouraging in this regard due to its high productivity. Therefore, it is recommended that on the basis of the recommendation No.1 the cropping trials may be conducted as a demonstration across the Agro-Ecological Zones.



c) The homestead gardening tried in different project villages indicate that farmers are very receptive of cultivating different species of vegetables for consumption and sale. In order to meet up the nutritional requirement of farm family, year round cultivation of vegetables in the homesteads should be done. A programme on vegetables cultivation should be undertaken in a wider scale.

Meher Saghar, an improved variety of banana has created a great impact on the farming community of the project villages. This technology has already been diffused to other farmers due to demonstration effect. But there is a limitation of adequate stock. It is, therefore, recommended that this technology should be disseminated to other areas by the concerned personnel.

d) The technology so far tried with poultry and livestock have created considerable enthusiasm among the farmers but in most of the cases the technologies could not be sustained as such, particularly in case of poultry. However, sheep and goat were tried as an income generating activity for the poor farmers. This activity has brought considerable effect on income generation of the poor farmers. It is recommended that suitable breed/variety of poultry should be made available to farmers. The income generating activity with sheep and goat should be extended to other villages of Bangladesh.

e) For obtaining quality breed of dairy cow artificial insemination programme should be strengthened and extended to areas where this service is not available.

e) Every village has got sufficient scope for seasonal cultivation of fish in the *dobas*, ponds and rice fields. The JSRDE project experience revealed that the unutilized water bodies could be efficiently utilized by cultivating different species of fish. Therefore, it is recommended that programme should be undertaken to cultivate fish in this unutilized water bodies.

f) The power tiller managed by the village committee/society

- has a good effect on the preparatory land tillage for its timeliness and ploughing quality. Farmers have keen interest in this technology. But very recently power tillers of VC has started facing competition from privately owned power tillers. Therefore, it is not wise to maintain power tiller by the village committee where the demand is already fulfilled by the villagers themselves. It is better to recommend that the private ownership of power tiller should be encouraged.
- g) The demonstration conducted in different sites has created interest among the farmers for the different technologies. Many farmers are practising the technology. It is, therefore, recommended that a mechanism should be built up in the village level.
  - h) Over and above there should be strong institutional base for the services delivery and technology transfer.

#### Group D

##### Loan Operation

- (a) Loan is required for the creation of off-farm activities. Village institution is the agent to explore loans for off-farm employment as well as its realisation. Both formal and informal groups may be formed to obtain credit for reinvestment. Loans from inside the group may be encouraged. Loans may be granted both in cash and kind.
- (b) Constraints of accessibility to the resources by villagers are illiteracy, credit information gap, complicated procedures in getting credit.
- (c) Opportunity inside and outside the village:
  - Inside the village
    - i) Construction of roads can increase the number of rickshaws and vans.
    - ii) Setting up Rural Industry

- iii) Scope can be created based on village survey reports
- iv) Skill development training may be provided to the unemployed youths
- v) Agro-based or cottage industries may be set up
- vi) Agriculture may be made more productive and income generating.
- vii) Scope of small trade, shop keeping, pedlary, trade; joint marketing, nursery business may be explored.

**Outside the village**

- i) Village institution or Union Parishad can bring information of employment to the notice of villagers.
  - ii) By making feasibility studies, scope of work may be explored.
  - iii) Scope of employment may be generated by contacting outside industry.
- (d) Potential contribution of Rural Infrastructure
- i) Electrification may lead to set up small business, factories, trade etc.
  - ii) Physical infrastructure, like post office, market, road construction can generate employment.
- (e) Role of Women in Off-farm Activities
- i) Sewing/Tailoring
  - ii) Work in garment factory
  - iii) Rice processing, food processing etc.
- (f) Regional Variation
- i) Due to variation in physical, economic, social and environmental conditions, scope and potentiality of off-farm employment will vary.
  - ii) Strategies need to be framed based on the availability of resources and socio-economic environment.

- (g) Findings
  - i) Due to construction of roads, bridges, culverts etc. the number of rickshaws, van etc. has increased.
  - ii) The development of rural market has generated some off-farm job opportunities in some places.
  - iii) Post office has increased savings.
- (h) Sustainability
  - i) Self employment through individual initiative is more likely to be sustainable.
  - ii) Employment generation must be attempted-keeping the marketing potential and location specific situations in view.
  - iii) If the credit fund is internal, activities are more likely to be sustainable.

#### 8.4.2 Discussion on the Group reports

After presentation of the group reports the participants took part in the discussion. After discussion the following issues were identified.

- a) Types of village institution i.e. formal and informal would be decided by the villagers.
- b) Relationship among traditional and new leaders are to be made for development of the village.
- c) There may be political factionalism, but in case of common interest of the villagers there is no clash.
- d) Official recognition of the village committee is essential.
- e) Managerial competence of the village leaders are to be developed.
- f) Focal point of linkage should be the Union.
- g) Linkage and service delivery through union parishad should be encouraged.

- h) Union Development Centres may be established.
- i) Chairman of the Union Parishad should be the pioneer of the Union coordination and service delivery system.
- j) BRDB officials - Union Development organizer will provide the secretarial support to the Chairman
- k) At the Thana level URDO/ARDO will coordinate the project activities.
- l) Minor infrastructure may be constructed through participation of the villagers.
- m) Service centres may be established at ward level.
- n) Biological technology with chemical technology may be considered.
- o) Mechanical and cultural technology also should be taken into consideration.
- p) Farming technology should be environment friendly.
- q) Feasibility of off-farm activity are to be studied.
- r) Rural industries may be established.
- s) Avenues of employment of the villagers outside the locality is to be explored.
- t) Rural infrastructure can create scope for employment in the rural area.

## 9. Concluding Session

Dr. Salehuddin Ahmed, Director General, BARD was the Chairperson of the session. Mr. Masudul Haque Chowdhury and Mr. Mizanur Rahman did the job of rapporteurs. On the basis of the group reports and issues identified the following recommendations were formulated which was presented by Ms. Saleha Begum, Project Director, JSRDE Project in the session.

## 9.1 Recommendations of the Workshop

### Institution

- a) In a big village para is more cohesive social unit which is tied by common interest, having more social and economic interactions, and demarcated by clear physical boundary. It should be considered in developing viable institution at the grass-root level. In case of small village the unit of rural development may be the village and institution may be developed accordingly.



*Ms. Saleha Begum, Project Director, JSRDE Project is presenting the draft recommendations of the workshop on Final Review of the JSRDE project in the concluding session of the Workshop which was held from 9th to 11th July, 1995 at BARD, Comilla.*

- b) Para or village institution can be developed according to the consensus of the locality to put up their plans and programmes to upper tiers.
- c) The institutions at the grass-root level must have an operational manual which will clearly define the terms of reference of the institutions, its relationship with other

institutions in the village and functions of other Nation Building Departments and institutions.

### Linkage

- a) In course of working with the villagers and the Thana-level officials to develop an effective linkage with the local administration services, it was felt that there should be a Union Development Centre (UDC) with personnel to take care of the delivery of services at Union-level. Grass-root institutions will send their representatives to Union Coordination Meetings. Union Parishad Chairman will be the coordinator in the Union Development Centre.
- b) BRDB may be the catalytic agent for the above linkage system and one staff may be recruited to work at the Union-level.
- c) The departments which have no Union-level staff, should recruit the same for the Union of the concerned project area.



*Dr. Salehuddin Ahmed, Director General, BARD, is seen to preside over the concluding session of the workshop on Final Review of the JSRDE project held from 9th to 11th July, 1995. Prof. Yoshihiro Kaida and Ms. Saleha Begum are seen beside him.*

- d) Two service centres should be set up in each ward to be located in a school or madrasa, or house of a villager where Nation Building Departments staff will make their services available on a specific day and time to serve the need of the villagers.
- e) Thana-level coordination and linkages will be made through existing mechanism.
- f) People should be motivated to pay their Union tax. The Union Parishad should give preference to take up development work of those villages who have cleared their taxes with certain amount of increased revenue, external resources, subscriptions and voluntary labour. Union Parishad Chairman and Union-level BRDB staff will motivate the villagers to pay tax, subscriptions and voluntary labour.

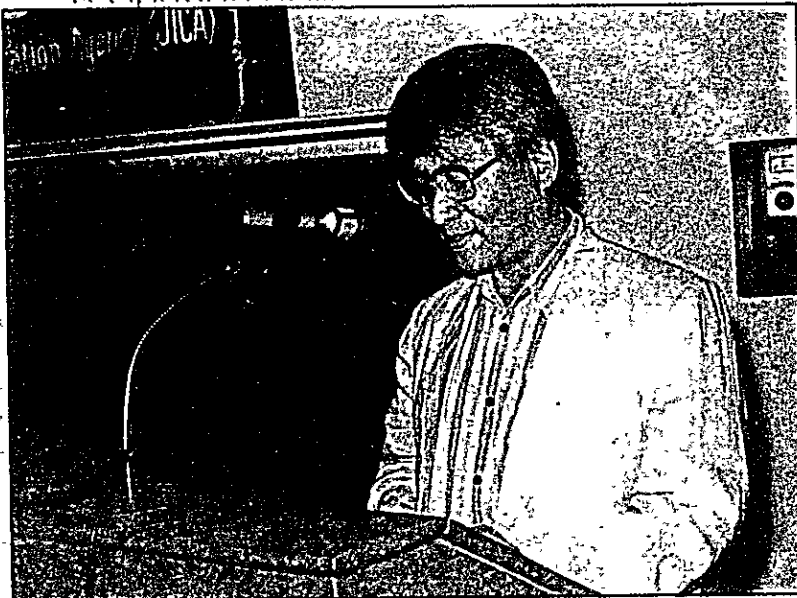
### Technology

- a) Adequate services and supplies to the village-level institutions should be ensured by respective service delivery agencies. The agencies are encouraged to adopt and refine the indigenous technologies available locally among villagers.
- b) Planning and construction of small rural infrastructures may be carried out by mobilizing locally available rural engineering to ensure people's participation from the planning stage.
- c) Homestead gardening should be promoted involving poor rural women. Vegetable production should be tried in kitchen gardens keeping in view the availability of balanced food. Horticulture, poultry and livestock development should be paid attention.
- d) Improved pisciculture should be encouraged.
- e) As the organic matter content of the soil of all the villages were very low, management practices should be developed to enrich organic matter to sustain productivity of the soil. This can be done by manipulating cropping patterns, addition of biomass through green manure, compost, cowdung and organic waste.



### Off-farm Activities

- a) Employment in off-farm activities depends to a large extent on the development of rural infrastructure, like huts and bazars, power supply, roads, bridges, culverts and postal services, etc.
- b) Availability of credit and other services including advisory services should be ensured to generate off-farm activities.
- c) The possibility of setting up micro industries/agro-based industries should be explored in rural areas.
- d) Skill development training to the unemployed youth to develop a professional cadre is necessary for speedy services to the villagers in various fields including livestock and poultry rearing, fisheries, horticulture etc. They will also create new job opportunities for the unemployed youth.
- e) Credit operation from the own and outside sources should be explored for off-farm activities.



*Prof. Yoshihiro Kaida, Japanese Team Leader is delivering speech in the Concluding Session of the Final Workshop of the JSRDE project.*

Prof. Y. Kaida spoke in the session. He high-lighted the necessity of villagers participation in all the stages of development of the village. Bottom up planning for development of infrastructure should be encouraged. Linkage system should be more transparent, streamlined. NBD staff of the locality should be posted in the Union and village level. Farming technology and engineering technology relevant with Agriculture should be suitable with local environment, not a sophisticated one.

Dr. Salehuddin Ahmed in his concluding speech suggested that Manual should be developed including the TOR of the NBD field staff who will be involved in the linkage system of the future project. Institution at the village level should be operational to safeguard the interest of the villagers. He also expressed his desire that BARD should be involved in the future project.

Mr. Haruo Noma, General Manager, JSRDE Project gave vote of thanks to the Chairperson, BARD, JICA and other participants of the workshop.