

B. REPORT ON AUSTODONA VILLAGE

1. Introduction

Immediate economic gain is the desire of the villagers in Bangladesh, but the materialization of it becomes difficult in many rural development efforts implemented so far, which are not fulfilled as expected. The diversified needs to meet their expectation are also too diversified to be fulfilled.

The villagers of Austodona are not an 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 and no scope for surface water to irrigate their winter crops. From our experiments it revealed that a DTW was not an acute need of the villagers. In spite of that, test boring of DTW was done by 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 limitation of the project budget, the installation could not be materialized. Then as the alternative needs in farming of villagers without DTW, resulted in the change of cropping sequences, then emerged as a hidden need of people and which helped to cool down the of the villagers fever for a DTW.

At present, strong demand for DTW is not found any more in the village. 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.

We wonder if the project would have financed DTW installation, we could fail to identify the hidden need of improving cropping pattern, which is one of the 'real' needs of villagers. Here, 'real' need is mentioned as 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.

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. It is very important for rural development planners and practitioners to identify every pieces of dormant resources such as human, technologies and materials in the 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.

At Austodona, several development interventions have been experimented by the JSRDE project with the participation of the villagers. As the action oriented researches by the JSRDE project are kept on steady progressing, dormant desire for development of the villagers has gradually been resumed.

The JSRDE is sure that the villagers have experienced certain changes in their consciousness.

This report aims to present the experiences of the action oriented research programmes implemented in the village which the JSRDE hopes to lead to a model for rural development in Bangladesh.

2. Austodona Village at a glance

2.1 Physical setting; Location

Austodona is under South Payalgacha Union, Barura Thana in Comilla district. The village is located at about 30 km south west of Comilla town, the district headquarters (hereafter HQs). The distance between the village and the Thana HQs is about 22 km. The Comilla-Chandpur highway lies in about 500 meter to the south. The village is well connected with the highway even in the rainy season. The village has a good communication by road with the Union Parishad (hereafter UP) office and the Thana HQs. There are six weekly local markets (*hats*) and a few corner shops within 4 km radius of the village. (see Figure-1).

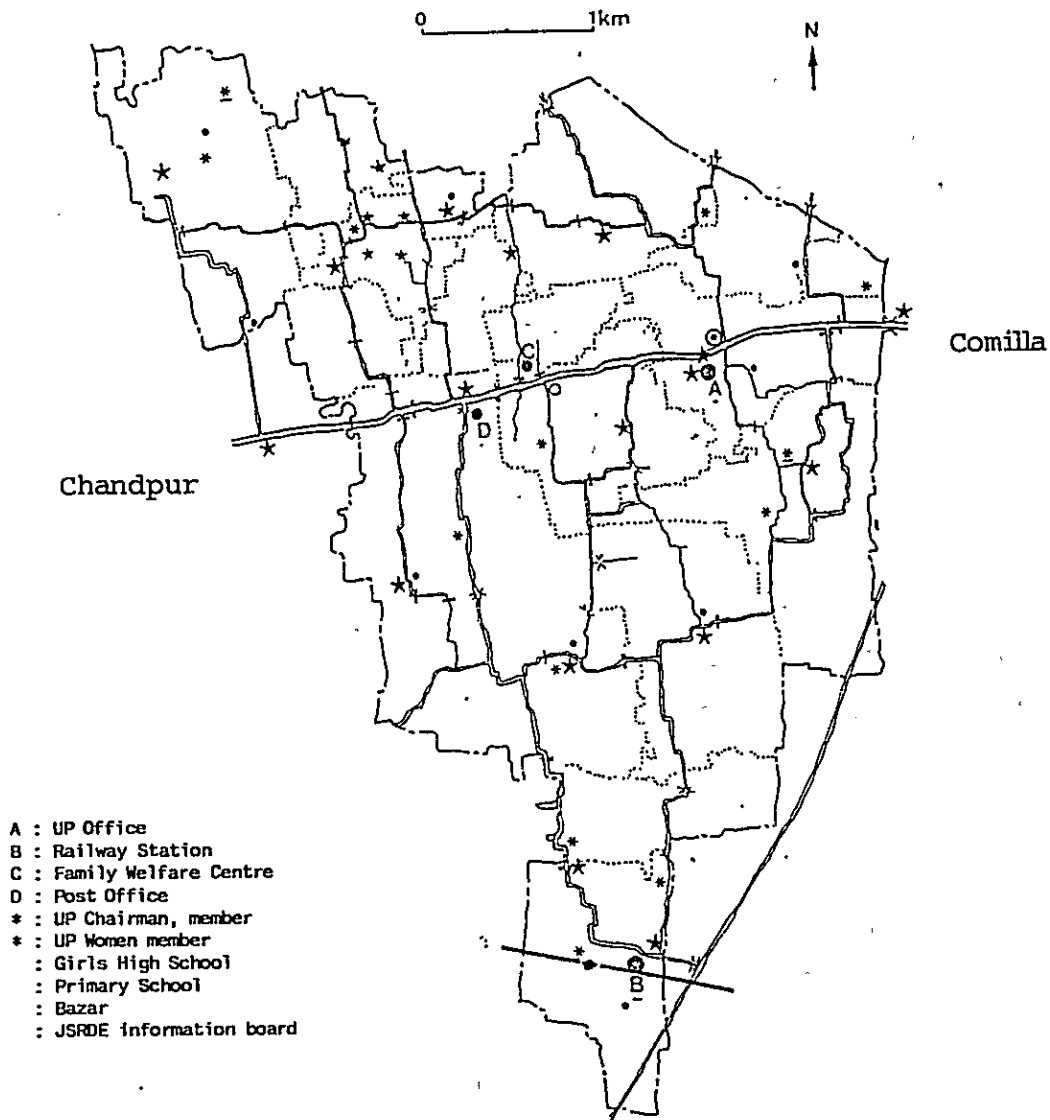


Figure 1 Map of # 14 South Payalgacha Union

2.2 Population

Total population in the village is 507 (male 266, female 241) in 1995. The acreage of land within the jurisdiction of Austodona village (*Mauza*) is 77.3 acres. The villagers of Austodona hold about 85% of total land of the village and the rest of the land (about 15%) held by the farmers who live in nearby villages. As Figure-2 shows, 76 households in 16 homesteads (*Baris*) gather around the centre of the village surrounded by farm land. The village has no sub-unit of settlement and *para*. According to the pattern of settlement, the villagers have developed the certain sociality and sense of belonging. Also there is a certain sense of Para identity and some corporate functions.

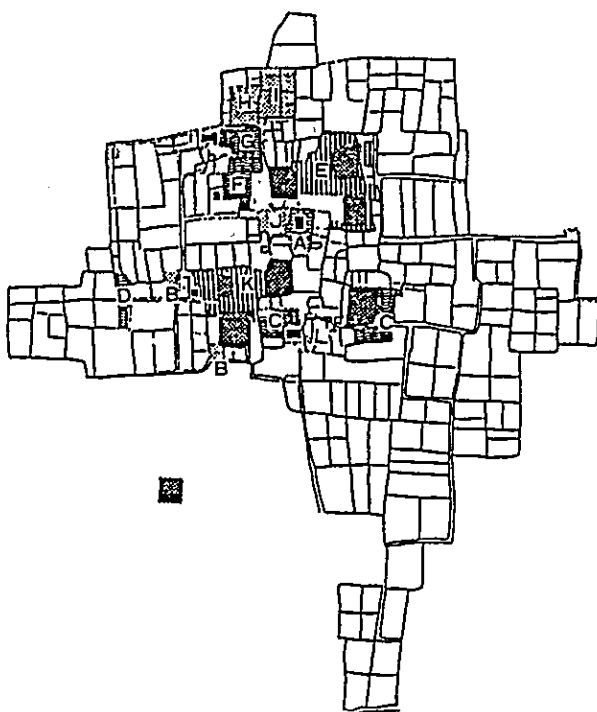


Figure 2 Map of Austodona village

Age group below 15 years old occupies 44% of the total population, from 16-59 years old and above 60 years old is 51% and 5% respectively. Average literacy rate is 35% (male 47%,

female 20%). There are 73 couples eligible for child bearing. Out of these eligible couples, 3 couples (4%) have used permanent contraceptive 40 couples (56%) used it temporarily and 30% of the total couples have not used it at all.

2.3 Economic and Social Condition

Regarding land classification by topography 25% of the total land belong to the high 55% to the medium and 20 % to the low land. As for land use in particular, 13% of the total land is used as a homestead, 4.5% as a garden, 5% covered by ponds and the rest 77.5% as farm land. Located in Tippera Surface, the village is comparatively high above the flood level, thus, there is no scope for surface water irrigation in the dry season. Most part of the high land is used as homestead (Bari Viti) including kitchen gardens and orchards. From agricultural point of view, though groundwater is not considered to be suitable for cultivation because of its salinity, farming in the dry season has not been practiced much.

The pattern of land holding is very uneven. About 11% of the total households cover 45% of the total land. 38% of the households own land up to 0.5 acres, among them 24% households are totally landless who absolutely possess no homestead. About 51 and 7 % of the total households have the land between 0.51-2.50 acres and 2.51-5 acres, respectively.

There are 61 bullocks, 24 cows, 60 goats, about 740 chickens and 200 ducks reared in the village.

This uneven landholding complicate the nature of rural development. Out of the total population of 507, twenty one persons have got employment abroad and 68 persons work in Dhaka and other towns in the country. A large number of villagers are engaged in off-farm jobs such as a vendor, rickshaw puller, and artisans etc. The scarce off-farm income opportunity in the village forces the villagers always to avail the opportunity outside job.

3. Action Research Programmes in the Village

One of the objectives of the JSRDE project is to establish a village institution and a linkage system between a village institution and the local administration.

Under this framework, increase in agricultural production and creation of off-farm job opportunity has been sought. At Austodona the JSRDE project has kept on encouraging the cooperative to act as a recipient institution of the Governmental services as well as an institution which could look into the common interest of the villagers.

The programmes implemented in the village are classified into several components, namely institutional building, establishing a linkage system, practicing environmentally sustainable technology and creation of off-farm income generation. These programmes consist of the cooperative's own programme, the JSRDE's programme and the joint programme of the cooperative and the JSRDE Project. (Table-1).

Table 1 List of the JSRDE's Activities

Programme	Institution	Linkage	Technology	Off-farm	Period (M/Y)
Survey					
Households	*			*	10.92-12.93
Land asset			*		10.92-9.93
Market				**	12.92-11.93
Local govt. & administration	***	***	*	*	8.93-10.94
Institution					
Cooperative office.	***	*			8.92, 11.95
Coop formation	***	*			7.92-
Registration of coop	***	**			7.7.93
Weekly meeting of coop	***	*			10.92-
Training of Managing Committee		**			2.94, 10.94
Linkage	***	****			8.94-12.95
Village Coordination Meeting	***	****			10.94-12.95
Union coordination meeting	***	****			10.94-12.95
Notice board	*	****			12.94-12.95
Newspaper subscription	**	**			11.93-12.95
Coop single programme					
Savings	***				7.92-
Loan	***				12.92-
Rickshaw installment	*			***	10.92-
Handicrafts	*			***	12.93-
Fish business	*			***	2.94-
Joint programme of JSRDE & Coop					
Power tiller lease	*	**	***	*	2.94-10.95
Pond fish culture	*	**	***	**	3.94-12.95
Poultry					4.93-
Tree planting at	**	***			8.95
Union road's side	*	*			3.94
Sanitary latrine	**	*			12.95
Ring culvert at village road					
JSRDE single programme	*	*	***		3.93
DTW test boring	**	*	***		9.93-10.94
Demonstration farm	*	*	***		12.93-
Crop diversification	*	**	***		12.93
Extension of soyabean	*	*	***		12.93-10.94
Introduction of Bogra banana	***	***			11.95
Electrification					

Note: * Limited relation
 ** Medium relation
 *** Close relation

3.1 Institutional Building

3.1.1 Background

In the past, there was no mentionable development effort at Austodona by any of the Government organization (GOs) or non-government organizations (NGOs). Thus, the villagers of Austodona had never experienced any noteworthy development efforts from outside. However, the villagers themselves initiated several efforts at different times to set up village informal organizations like Youth Welfare Society, Cooperative Society of early 1980's, Village Society and so on. But none of those organizations were able to sustain because of managerial inefficiency and lack of necessary supports from the external agents both GO and NGOs.

3.1.2 Organization of the Cooperative

At the Austodona village, several development interventions have been experimented by the JSRDE project with the main focus on organizing a village institution which could facilitate villagers' participation to rural development both socially and economically.

At the first phase of the project (JSARD, 1986 to 1990) we observed that some villagers set up an informal cooperative society which had 76 members. Its main activity was mutual financing which was a sort of arrangement where members saved small amount of money and drew loan at the time of their need.

When the second phase of the project, that is the JSRDE project, started in 1992, we found the cooperative society was not functioning due to the financial mismanagement by a Managing Committee (MC) member. However, some of the previous members were very eager to re-form the cooperative society.

According to the motivation by the JSRDE project, a new cooperative society was formed in July 1992 and later registered under the name of "Austodona Comprehensive Village Development Cooperative Society Ltd." by the TNO, Barura. The society was registered on the 7th July 1993 and affiliated with the TCCA. This name has been amended as "Austodona Village Development Cooperative Society Ltd." and finally renamed as "Austodona Village Development Society Ltd." by the annual general meeting (AGM) held in August 1993.

At the several meetings of the cooperative society, they drew the future plans. In the plan drawn in August 1992, they listed up the targets as follows;

- (1) installment of a Deep Tubewell (DTW),
- (2) electrification of the village,
- (3) registration of the cooperative society,
- (4) construction of a community centre (house),
- (5) collection of savings to create their own fund,
- (6) keeping proper records of meetings.

For achievement of these targets, several sub-committees were formed from time to time under the MC of the cooperative.

3.1.3 Construction of Cooperative Office

In order to encourage the activities of the cooperative, a Cooperative office-cum-community centre was proposed at the meeting and constructed jointly by the cooperative and the JSRDE project.

During the JSARD project a small straw-thatched hut was constructed as the meeting place for the cooperative members. It was destroyed by the heavy storm in 1992. After that they had a plan to reconstruct another hut since they felt the necessity of such a meeting place. When the JSRDE project started in the village in 1992, they took up the construction plan of the meeting room once again.

The JSRDE thought that the cooperative's own office or meeting place would be an important property of the cooperative and the building could be used not only as a meeting place of the cooperative but also as a community centre for the villagers.

In response to the motivation by the JSRDE, one village *Matabbor* agreed to donate 0.02 acre (33 x 26.4 sqft) of land for the office of the cooperative. Then, out of the total cost of Tk. 75,645 for construction, Tk. 50,000 was provided by the JSRDE project and the rest amount, Tk. 25,645 was born by the cooperative in the form of cash, materials and laborers. A building made of brick with tin roof was constructed during August to September 1993.

Since then the building has been used as an office of both the cooperative and the JSRDE project. The villagers are using the building as a meeting place not only for the cooperative but also for some public functions like *Bichar* (court) and so on. After the linkage programme started in September 1994, the building has been used as a service centre where the Nation Building Department personnels (hereafter NBDs) come drops in and meet the villagers. The building has already become a common place for the villagers to sit and talk together about the affairs both of the village and the development as well (Table-2).

**Table 2 Performance of Austodona Society Building
From December '92 to December '95**

Purpose of Use	Nos. of Total Use in Days	Nos. of Total Participants
Cooperative		
weekly meeting	73	1,018
managing committee meeting	44	298
annual general meeting	1	36
special general meeting	2	101
Linkage programme		
village coordination meeting	16	325
visit of NBD field staff	45	45
Community Activities		
village court (shalishi,bichar)	11	356
Ifter party	3	405
marriage ceremony	1	35
Others		
DTW test boring worker	10	150
PBS worker	3	18
Total	209	2,787

The building was renovated in collaboration with the cooperative and the JSRDE in November 1995. The cooperative planned to extend the building by about (6 x 12) sq ft. for the purpose of shop which would be rent out to a villager. The wall and floor plastering were completed. The JSRDE provided Tk. 50,000 out of the total cost of Tk. 62,000 and the rest was borne by the cooperative.

Positively, the JSRDE thought that this brick made 'community centre' was playing an important role in enhancing village consciousness.

3.1.4 Activities of the cooperative

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

In spite of the expectation of the JSRDE project, from the very beginning the objective of cooperative's interest was to look to 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 was operating several programmes such as small credit, rickshaw loan, poultry and land mortgage by the own capital of the cooperative, (i.e. share and savings of the members, etc.)

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

In order to gear up the cooperative's activities management training for the MC members was introduced and a few cooperative's joint business programmes, namely plowing by the power tiller and fish culture in a pond, were implemented with the financial assistance of the JSRDE in 1993. Table-1 shows the joint programme of the cooperative and the JSRDE.

At the initial stage of implementation of the joint business programme, the cooperative and the JSRDE considered those businesses might financially encourage and ease up the cooperative activities. However, at the end of 1994 we found those joint business programmes, jointly borne by the cooperative and the JSRDE, faced some serious managerial problems and could hardly succeed to attain the expected results. Most of the business suffered from heavy loss due to mismanagement. For instance, unnecessary quantity of fish feed, which was not properly applied, was purchased for the cooperative fish culture programme. Some considerable portion of the feed was mismanaged by one of the MC members. In power tiller plowing business, most of its income was not properly recorded in the account book, and false amount of fuel cost and driver's salary, which was much more than actual expenditure was defrayed.

Those mismanagement by the manager and some member of MC, which led to a heavy loss, let the JSRDE and the cooperative finally decide to withdraw any type of the joint business of the cooperative.

The training provided by the project for better cooperative management had hardly shown any improvement.

Through our experiment, we have found out what kinds of factors were responsible for the cooperative's mismanagement of this type. Those were as follows :

- (1) "everybody's business is no body's business",
- (2) it occurred from lack of interest among the members to manage the cooperative society for the benefit of the cooperative as a whole,
- (3) the mismanagement in the cooperative business attributed to the cooperative's closed-door managerial system which usually keeps the other members blind from the cooperative management.

Small Scale Credit

At Austodona only 4 women had skill of making handicrafts. They regularly faced fiscal problems. On the other hand, the cooperative began to think about the way of investing its capital accumulated from shares and savings of members. Then, in order to fulfil the need of both the cooperative and those women, the JSRDE project suggested provision of small credit to those who were poor but skilled to make any kind of handicrafts in the village.

It was rather easy for the members to find the profit derived from the loan disbursement programme. According to the experiences of the cooperative, the members came to know that the given loans for rickshaw purchase and poultry were profitable for both the cooperative and the members.

Prompted by the advice of the JSRDE, a loan was initially disbursed to a poor woman who had skill to make fish net. Observing her performance, loans for bamboo craft making, mat making were taken up. Then, the loans were extended for the small business like pedlary and fish sale business. Thus, the small scale credit programme were gradually accepted and thus became one of the important activities of the cooperative.

The cooperative distributed Tk. 1,68,770 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. The loans thus supported and expanded rural economic activities directly or indirectly (Table-3).

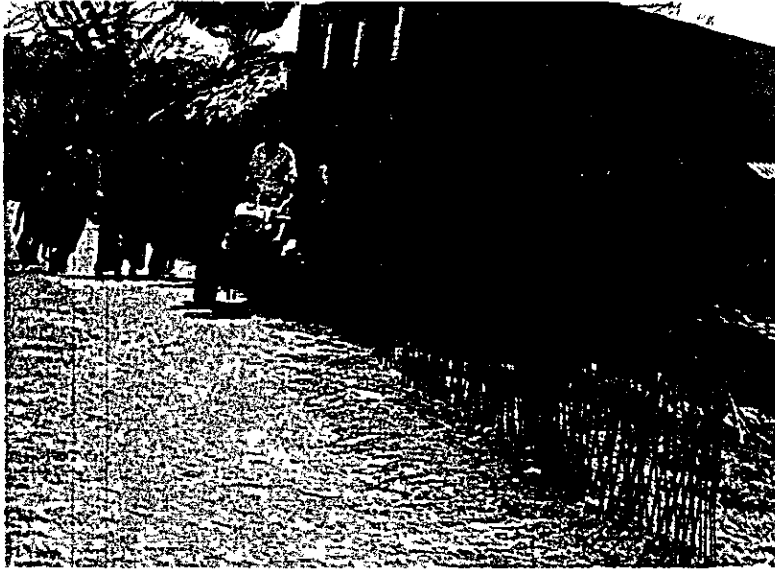


Photo 1 The power tiller of Austodona Cooperative on way to the field



Photo 2 Test boring of Deep Tubewell for Austodona Cooperative Society

Table-3 : Impact of Credit by the Cooperative during July 1992 to June 1995

Sl No.	Purposes of Loan	Number of loanees	Number of loans	Amount of loan disbursed (Tk.)	Realization of principal (Tk.)	Realization of dividend (Tk.)	Net income generated by loanees (Tk.)	Consumption of net income by loanees (Tk.)	Capital formation by loanees out of net profit (Tk.)	Employment generated in man days	Number of self-reliant loanees
1.	Poultry rearing	14	17	5100	5100	1095	7685	4565	3120	641	11
2.	Fish net making	1	3	450	450	30	330	180	150	112	1
3.	Thin 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	2
6.	Fish trading	3	7	5500	4050	375	75650	74250	1400	1180	2
7.	Rickshaw pulling	8	11	43920	35900	12975	223745	199315	24430	3208	8
	Total	41	67	75,470	58,800	16,015	406,730	369,760	36,970	8,143	32

Note : Eight (8) hours work involvement is one man day

The cooperative realized Tk. 83,800 and Tk. 28,590 as principal and service charges respectively from July 1992 to June 1995. There was no overdue installment of principal or service charge.

It was observed that savings and credit were meant mainly for income generation among the members and did show better results and that loan realization was satisfactorily high.

Programmes of the Community Interest

All the households of Austodona became members of the cooperative which included people from all the strata of the village. Its membership remained open to all, both male and female, rich, poor and landless, and adults and children. It can be said that the Austodona cooperative adopted the community development approach which addresses total development of a community and all of its members.

However, at present the attention of members and the activities of cooperative have been centered on the benefit oriented economic activities. The programmes of social development and common interests have never been taken care of with much importance and implemented through usual activities of the cooperative.

In order to include the community interest oriented programme to the cooperative's activities, the JSRDE Project introduced the 'linkage' programme, which aimed to link up vertically and horizontally between the local administrative bodies and the villages, to maintain information and service linkage with Union Parishad (UP), Nation Building Departments (NBDs) and NGOs of union and thana levels. In the 'linkage programme', the cooperative was given a role to collect development related information through the coordination meetings and to disseminate those informations to the villagers with assistance of the JSRDE. For carrying out this purpose, the cooperative appointed seven (7) informants who were selected on the basis of the homestead groups (Baris) in November 1994.

In December 1995, as a first attempt for the community interest programme, a ring culvert was set at the village road by the volunteer laborers in the village. The village leader negotiated with the leaders of the adjacent villages and developed a scheme which could

mobilize voluntary labors in the village. Then, the JSRDE project offered ring culverts to the village. This work was done by the council of the village leaders rather than by the cooperative.

3.1.5 Results and findings of the cooperative

From the experience of the Austodona cooperative under the influence of the JSRDE action research programmes, we observed the following features;

- (1) There are some customs, norms or neighborly relationship in the village that backed all the households to join the cooperative. Only economic interest is not enough to motivate the villagers to join the cooperative.
- (2) In the field of economic activities, there are few people who work for the interest of others. Therefore, the joint business directly operated by the cooperative could not work well. The reasons of failure is lack of sense of responsibility and managerial weakness. In addition, the business of the cooperative is often intervened by the interest of individual entrepreneurship among the members.
- (3) Under the BRDB cooperatives, the existing complicated account keeping system hinders the growth of cooperatives in many cases. The closed-door accounts keeping system often causes mismanagement and embezzlement of the fund. In order to avoid these problems, simple management system has been pursued. A new method of accounting and statement to the members should be introduced.
- (4) Since a village institution was formed as a cooperative, the economic activities dominated the objective of the Austodona cooperative. Though the cooperative covered all the households, the problem was that every activity so far tried revealed economic interest of individual, and a measure attempt to identify common interests.
- (5) A mutual financing system has emerged. Among the cooperative activities, the performance of the small savings and credit has acquired good results. This showed that the possible way of sustainability of the cooperative through operation of loans

with their own fund. It implied a way to innovate existing cooperative into a sort of mutual financing association [Maloney :1988].

At present, to ensure better management, the cooperative was practicing some new regulations which has learnt from the experience during the project period.

- (1) Just one resident member per household was eligible to attend the decision making of the cooperative. In the general meeting the decision making member could only approve budget and other important issues. But, anybody could be registered as a the shareholder and savings member. It has been done through amendment of bylaws of this cooperative.
- (2) Decisions of the cooperative were made in the meeting for which minimum one third of total members' presence was required.
- (3) To avoid conflict and grouping in the cooperative, the cooperative did not follow any election method to select any members of both the MC and the sub-committee. Selection method should be discussed well among the villagers.
- (4) The cooperative did not borrow money from the external source for the individual economic activities. It operated the credit programme out of its own fund.
- (5) The cooperative might not directly get involved in its own business but facilitate and support individual's business activities such as investment, employment and income generation.
- (6) The cooperative supported economic activities of the resident members of Austodona village.

The features of the cooperative in Austodona are summarized as follows. In Bangladesh, one of the most important institution for rural development is a cooperative. It can be mentioned that the cooperatives are usually formed on the basis of the economic class or functional

groups. Therefore, the institutions cover only part of the villagers and exclude other villagers from the development activities. In a village where the rich and the poor are neighbours and the poor farmers and resource poor female or male are the target groups of different units under the cooperative's framework. It is similar to the NGO's informal group approach. This can be called as a segmental approach. Both BRDB and NGOs, as a result of those frameworks, tend to control decision making of a unit cooperative society or unit/group regarding resource allocation for development.

On the other hand, the cooperative of Austodona is a single unit which covers all the strata of the village. Its membership remains open to all. The cooperative has been formed as a single organization at the village level. As a result, the Austodona cooperative society was formed based on the community principle, not on the target group approach. It can be said that the Austodona cooperative adopted the community approach (Figure-3).

The Austodona cooperative thus acquired the authority of decision making regarding resource allocation and a freedom to conduct its activities. The Austodona cooperative is almost autonomous, which has attributed to its independence of the external capital.

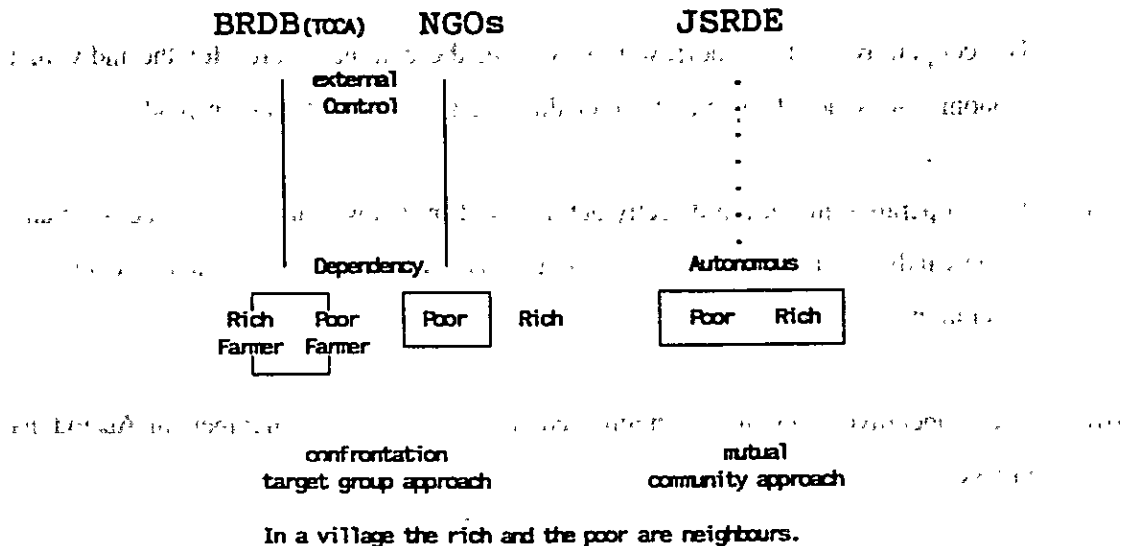


Figure:-3 Institutional Formation of BRDB, NGOs and JSRDE

3.2 : Linkage between Villagers and the Local Administration

3.2.1 Background of 'linkage' programme

In rural Bangladesh, many villagers are suffering from poverty, not only from 'economic poverty' but also from 'information poverty' [Zijp : 3]. At union level 'linkage' and coordination among the local administrative units both horizontally and vertically (stated below) are almost missing and invisible to the villagers. Therefore, most of the villagers are left under the condition of 'information poverty', which seriously discourages people to realize their own real need and to participate in the development activities both planning and implementation.

In order to get rid of these obstacles, 'linkage' programme was carefully planned by the JSRDE with three objectives. These are,

- (1) 'alleviation' of 'information poverty' and encouragement of people's participation for self-development,
- (2) delivery of supports and services relating to rural development available at Thana level NBDs in collaboration with concerned NBDs and South Payalgachha UP,
- (3) establishing a 'mechanism' of the 'linkage' at union level by mobilizing the existing manpower posted at the union (Figure-4).

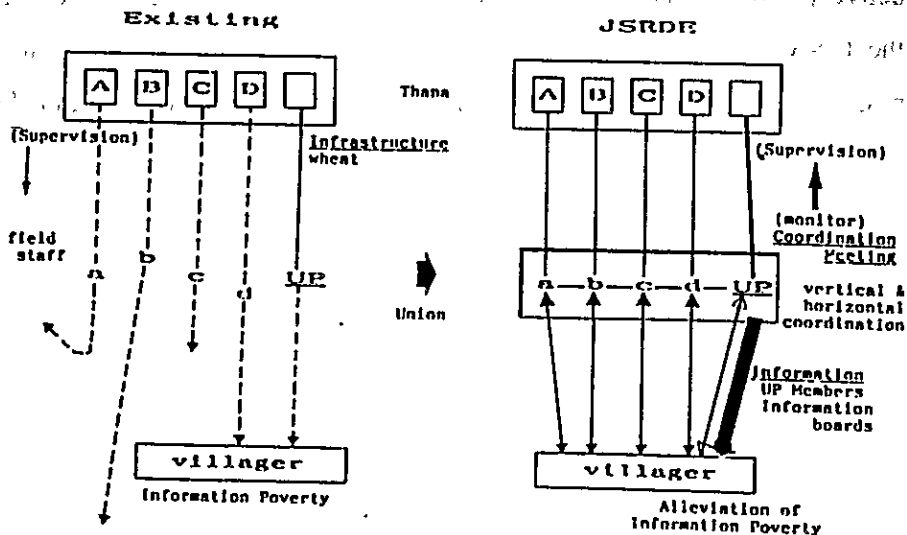


Figure - 4 Comparison of The Coordination in Union Level

In this report, the local administration means an administrative function of NBD both at union and thana levels and Union Parishad. The 'linkage' between local people and the local administration consists of several sectors, such as infrastructure for both construction and maintenance, income generation, improvement of living condition and relief programmes in rural area. Infrastructures include both construction and maintenance of roads, canals, schools, hospitals, markets etc. 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 etc.

3.2.2 Service Delivery in the Local Administration

At Barura Thana HQs, Thana Development Coordination Committee (TDCC) meeting is held every first week of the month with attendance of the local honourable Member of Parliament (MP), all the UP chairmen and all the officers of NBD at Thana level. Each NBD, as a regular schedule, holds weekly or monthly meetings with attendance of all its staff at Thana HQs. It seems that coordination between NBD and UP are going well.

In the South Payalgacha Union, 24 personnels of 11 NBDs are discharging their duties under direct control of the officer of each department of the Thana HQs (Table-4). One can see that the NBD staff posted in the Union are sufficient in number to carry out their duties and service delivery. On the other hand, the 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.

Table-4 List of NBD Field Staff at South Payalgachia Union

Sl. No.	Designation	Sex	Department	Jurisdiction	Present address	Education	Working Type
1.	BS	M	Agri.	Ward-1	P. Union	SSC	Seeking
2.	BS	M	Agri.	Ward-2	P. Union	SSC	Seeking
3.	BS	M	Agri.	Ward-3	P. Union	SSC	Seeking
4.	VFA	M	L-stock	4 Unions	Barura, Comilla	HSC	Waiting/seeking
5.	AIFA	M	L-stock	5 Unions	P. Union	HSC	Waiting
6.	AFO	M	Fishery	15 Unions	Barura, Comilla	HSC	Waiting/seeking
7.	AHI	M	Health	2 Unions	Debidar, Comilla	HSC	waiting
8.	HA	M	Health	Ward-1	Sadar, Comilla	HSC	Seeking/waiting
9.	HA	M	Health	Ward-2	Laksham, Comilla	HSC	Seeking/waiting
10.	HA	M	Health	Ward-3	Shahrasti, Hajiganj	SSC	Seeking/waiting
11.	FPI	M	FP	1 Union	P. Union	BSc	Seeking/waiting
12.	PWV	F	FP	1 Union	P. Union	SSC	Waiting/seeking
13.	FWA	F	FP	Ward-1	P. Union	SSC	Waiting/seeking
14.	FWA	F	FP	Ward-1	P. Union	SSC	Waiting/seeking
15.	FWA	F	FP	Ward-2	P. Union	SSC	Waiting/seeking
16.	FWA	F	FP	Ward-2 & 3	P. Union	SSC	Waiting/seeking
17.	FWA	F	FP	Ward-3	P. Union	SSC	Waiting/seeking
18.	USW	M	SW	3 Unions	Barura, Comilla	BA	Waiting
19.	AEO	M	Ed	3 Unions	Barura, Comilla	BA, B.Ed.	Waiting
20.	Mechanic	M	PHE	3 Unions	Barura, Comilla	n a.	Seeking
21.	ACO	M	Coop	15 Unions	Barura, Comilla	B Com	Waiting
22.	Inspector	M	TOCA	3 Unions	Barura, Comilla	HSC	Waiting
23.	UL	M	VDP	1 Union	P. Union	Class 8	Seeking
24.	UL	F	VDP	1 Union	P. Union	Class 8	Seeking

BS : Block Supervisor

VFA : Veterinary Field Assistant

AIFA : Artificial Insemination Field Assistant

AFO : Assistant Fishery Officer

AHI : Assistant Health Inspector

HA : Health Assistant

FPI : Family Planning Inspector

FWV : Family Welfare Visitor

FWA : Family Welfare Assistant

USW : Union Social Worker

AEO : Assistant Education Officer

ACO : Assistant Cooperative Officer

UL : Union Leader

Agri. : Agriculture

L-Stock : Livestock

FP : Family Planning

SW : Social Welfare

Ed : Education

PHE : Public Health Department

Coop : Cooperatives

TOCA : Thana Central Cooperatives Association

VDP : Village Defence Party

As described above, the local administrative system seems to retain a certain function in Barura. However, at present, response and participation of the villagers to the development activities are not encouraged to the expected level. At the same time, the NBD officers of Barura Thana HQs often face some difficulty to supervise their staff those who are working at union level. In spite of the clear definition of UP's roles on rural development mentioned in the Local Government Ordinance, neither information exchange between UP and NBD staff nor significant role on rural development assigned to UP has been observed at the union level. In the village, not only NBD's performances but also NBD staff are, almost, invisible and their accountability seem almost absent. The reality is that most of all the villagers stay beyond the boundary of information of NBD. Only a few villagers get limited support and service, but most of the 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 are the main causes of 'information poverty' in rural area. This discourages the villager from participation in the development activities.

3.2.3 Implementation of 'Linkage' Programme

Main components of 'linkage' are 'coordination' meetings both at UP (Union Coordination Meeting, hereafter called (UCM) and at Austodona (Village Coordination Meeting, hereafter called VCM), and 'information dissemination' to the villagers through information boards. The participants of UCM are NBD union level personnel, UP members and a few village representatives. The participants of VCM are NBD field staff assigned to Austodona and village representatives (Figure-5). UCM is held twice a month and VCM once a month. Both RDO and ARDO, BRDB coordinates UCM and VCM respectively.

Administrative Unit

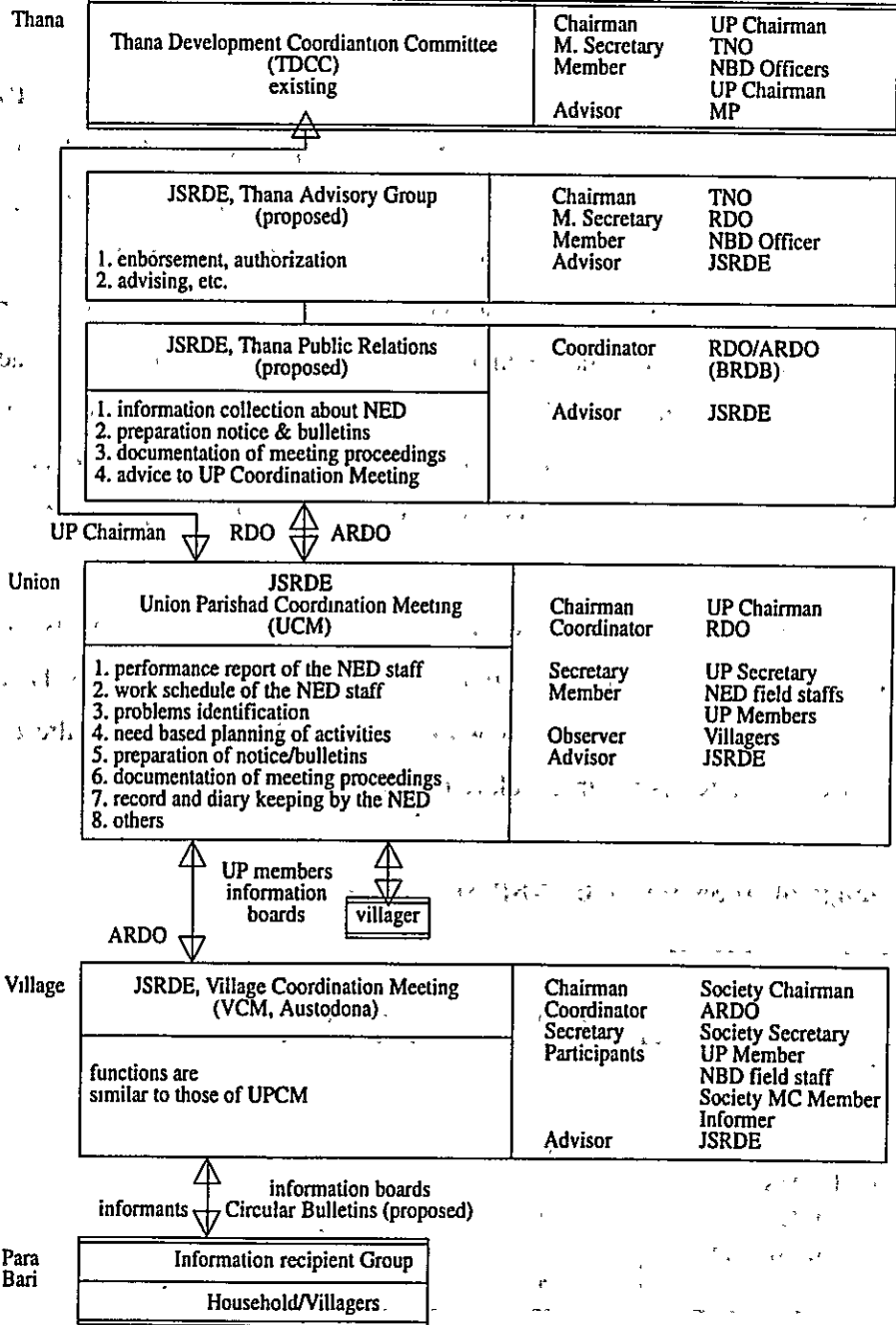


Figure-5 Framework for JSRDE Linkage in Austodona

Proccdures of both the meetings are as follows:

- (1) Review of the minutes of last meeting and follow-up (Appendix-1).
- (2) NBD staffs' presentation of performance report and tour and work programmes of the next month in the jurisdiction of the union and the information relevant to rural development.
- (3) Discussion on the problems identified by the participants, and so on. BRDB is assigned to collect information related to rural development from Thana level and to present it before the members of UCM and VCM. Proceedings of both the meetings are written by a BRDB-TCCA inspector with assistance from the JSRDE project staff. This is typed and cyclostyled by the TCCA, Barura and distributed among the attendants of each meeting. The UP members of the concerned ward conveys advance tour and work programmes of NBD staff and different information to the villagers. At the same time the tour programme compiled by BRDB and the JSRDE project are put up as bulletins on 18 information boards by the UP *Chowkidars* (Figure-1).

By information dissemination through coordination meeting and information boards under the 'linkage' system, communication among NBD staff, the UP and the villagers have been improved. Number of visits and quality of works done by NBD staff have already been improved and become more visible than before (Table-5).

Table - 5 Change of Accessibility by NBD Staff at Austodona:

	Before JSRDE	JSRDE Linkage
Health Assistant	*	**
Family Welfare Assistant	*	**
Block Supervisor	0	*
Veterinary Field Assistant	0	*
Assistant Fishery Officer	0	**
Public Health Engineering	0	**
TCCA	0	**

0 : not seen
 * : few times
 ** : several times

Consciousness about importance of information and coordination has gradually been developed among the participants of the coordination meetings. Results of 'linkage' programmes seem to be positive and encouraging. Some NBD staff already informed his or her advance tour programme and discuss 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 thus has been gradually reduced to a minimum level in the union.

Tree Plantation along UP road

Carrying out the linkage programmes, the 'tree plantation programme along the UP road' was negotiated between UP and the Austodona cooperative.

Community consciousness is uplifted on the basis of some issues of common interest which community has developed under a certain norm or rule.

In the village we often observed that villagers plant saplings of trees every year at their private lands. The JSRDE advised that if the society planted trees in any open space such as around a mosque or along UP roads, it would earn considerable income after a few decades. Then, the cooperative applied to UP for permission to plant saplings along the eastern side of Union road at VCM and UCM. In June 1995 an agreement between the UP and the cooperative was made following the regulations of the Government. According to the terms and conditions of the contract, the cooperative will get 65 % of the total price of the trees, and the concerned UP, local NGO and the Forestry Department allowed to share of 20 %, 10 % and 5 %, respectively. A total of 440 saplings of different species of trees like Epil-Epil, Mahogany, and Sheel Koroi were planted in August 1995. The cooperative gave 220 saplings of Epil-Epil, labour and manure for fertilizer. The JSRDE provided saplings of 110 each of Sheel Koroi and Mahogany and bamboo cages and sticks to protect the saplings from the cows and the goats. A sub-committee consisting of 15 members was formed for taking care of the plants. The JSRDE has assumed that those trees planted by the programme would become the community property which may mobilize the villagers' community consciousness. Several months have passed, the tree plantation programme has faced the same problem the

cooperative has already faced in its joint business before, that is "every body's tree is nobody's tree". Now no villagers care the trees anymore and the goats regularly damage these saplings planted and caged so carefully.

3.2.4 Findings of the Linkage

With regard to the access of the villagers to the services supplied by NBD field staff can be grouped into two types, one is 'seeking' type and the other is 'waiting' type (Figure-6).



Photo 3 Union Coordination Meeting

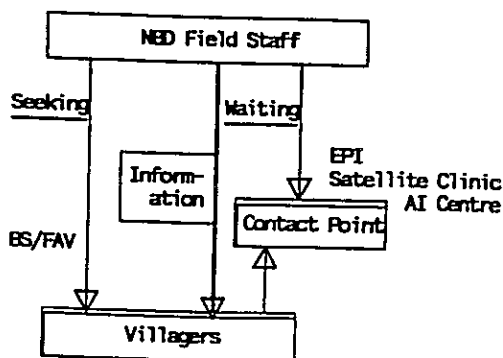


Figure - 6 Work type of NBD Field Staff

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 place and time.

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 presently existing numbers of NBD staff.

The JSRDE 'linkage' system can so far be summarized as follows (Figure-7).

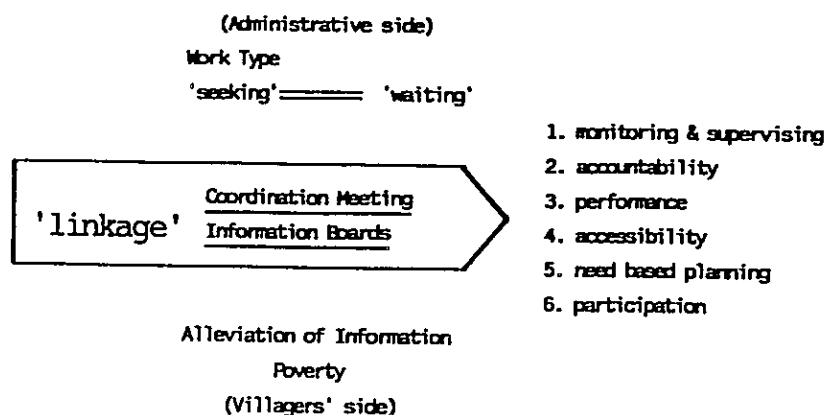


Figure - 7 Mechanism of JSRDE Linkage

- (1) Both UCM and VCM provide opportunity for development coordination horizontally and vertically in rural areas. Local people can be motivated and mobilized to participate in the development activities by the support services, information and so on which is be delivered well through the 'linkage' system.
- (2) UCM may change NBD's working mechanism from 'seeking' type to 'waiting' type and reduce work burden of NBD staff (Table-6).

Table 6 Comparison of Work type of NBD Field Staff

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

- (3) Both regular information sharing and face to face dialogue by NBD staff and UP members will create some sort of monitoring system and the accountability. Because UP members are interested in the service delivery performance as the representatives of localities.
- (4) UP can play an important role in rural development as a cross road of information about the support service and the infrastructure. UP members can work as a conveyor of information to the villagers. In future, the local village leaders may be involved in information delivery system as informants.
- (5) Alleviation of 'information poverty' will promote villagers to find out the needs and to participate on self development activities.

3.3 Environmentally Sustainable Farming Technologies - a lesson from the failure in DTW installment

3.3.1 Crop diversification: Environment Sustainable Farming

Villagers of Austodona had a long desire for the installation of sinking a DTW for winter crop cultivation as they thought there was no other device to get water other than a DTW.

A few years back, a test boring of STW was once done in the village, which showed that underground water at 100 feet deep was not suitable for cultivation because of salinity.

However, in the neighboring village, a DTW has expanded Boro rice cultivation successfully.

Though the JSRDE has a cautious concern whether the farming with DTW irrigation is sustainable both environmentally and economically at Austodona. A test boring of DTW was done by the JSRDE project in the village in March 1993. It proved that the underground water below 490 feet depth is suitable for the rice cultivation. This positive result of the test boring encouraged the cooperative members and therefore there was a desire to install a DTW.

Then, the members became very keen to get the cooperative society registered by the Government, because only the registered cooperatives were entitled to apply for those subsidy of DTW installation. The cooperative was finally registered in July 1993, but DTW could not be materialized because by then the Governmental subsidy was withdrawn due to the change of the policy of providing irrigation equipment by the public department in July 1992. The World Bank pressed the GOB to privatise the irrigation sector. Therefore BADC and BWDB could no longer help the needy farmers with subsidised boring cost of DTW. Without any subsidy a DTW sinking costs more than 6 lac to the cooperative. Then, as a matter of course, the cooperative requested the JSRDE project assist financing its DTW installation. However, due to a limitation of the project budget, the installation could not be materialized so far.

In order to cope with the situation, the project opened a demonstration farm for Rabi crop cultivation. At the same time, the JSRDE project installed 7 pedal pumps on experimental basis, because the lack of irrigation facility was considered to be a barrier of the crop diversification. The pedal pumps successfully demonstrated in 1993/94 that there was a broad prospect of supplementary small scale irrigation in the dry season. This led the villagers to think about the feasibility of crop diversification. After they saw unexpected good harvest, the desire for a DTW was given up.

After abortion of the DTW scheme, in order to turn the villagers' attention from DTW, the JSRDE project needed to look for the alternative ways to meet the villagers' need to accelerate agricultural production.

Then, the following features of cropping pattern were carefully observed in the field:

- (1) The cropping pattern in Austodona was mainly a mono crop (rice) type, "Broadcasting Aus (B Aus) followed by a Transplanting Aman crop (T Aman) and a fallow".
- (2) The dominant practice was the traditional production method of growing of local varieties of Aus and T. Aman.
- (3) Production of cash crops, i.e. vegetable and fruits, etc, was very negligible.
- (4) The seed beds were not properly utilized after Aman seedlings were uprooted and carried away from the seedbeds.
- (5) Cultivation of late varieties both of LV Aus and LV Aman prevents early cultivation of Rabi crops. If it is possible to cultivate Rabi crops earlier the farmers are to use less irrigation water.
- (6) Ground water can be carefully used as supplementary irrigation in the dry season, because salinity is not so high as the villagers reported.

Based on the above observation, the JSRDE project started a demonstration farm of various Rabi crops for the purpose to introduce new cropping pattern in the village in September 1993. The proposed change of the cropping pattern at Austodona is from "B Aus - T Aman - fallow" to "B or T Aus - T Aman - Rabi crop". To avoid farmers' risk, they were not directly involved in the demonstration farm programme. However, the JSRDE provided some seeds and seedlings of vegetables to those who showed interest in the demonstration plots (Table-7). At the same time the JSRDE project encouraged the villagers to cultivate the early varieties of Modern (MV) Aus and Aman.

Table - 7 Current Status of Crop Diversification Programme 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, moderate

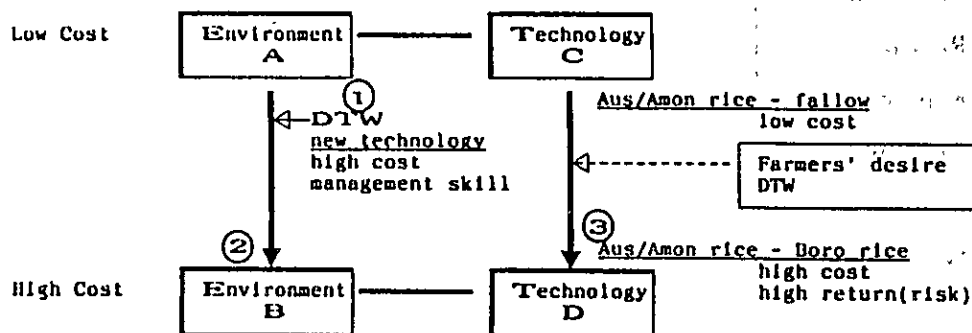
* : exist, very little, *** : exist, many

Initial response of the villagers to the vegetables growing demonstration seemed very discouraging. However, after watching the good result of harvest, some farmers whose lands were nearer to the demonstration plot gradually started cultivating the crops and vegetables. They cultivate vegetables initially with the seeds provided by the project and subsequently with their own purchased ones. A few farmers also started cultivating several kinds of nitrogen-fixing leguminous crops, such as soybean, *Motor* (pea) and *Musur* (lentil) etc. in the Rabi season. This legume cultivation helped to produce a good harvest of Aus rice in the following kharif season.

During and after irrigation with the pedal pumps, no serious defect and problem caused by

salinity could be observed so far in both crops and soil.

The farmers wanted the DTW irrigation which could enable them to cultivate HYV Boro rice. This farming technology with DTW may drastically cause environmental change of the farming system. Therefore, a technology of this type can be termed as Environment Reformative Technology (ERT). This type of technology requires not only large investment such as initial cost and running cost but also managerial capability handling of new facilities (Figure-8).



Procedure of ERT

1. installation of DTW (new technology)
2. reformation of environment (Environment A to Environment B)
3. renovation of farming technology (Boro rice cultivation)

Figure - 8 Environment Reformative Technology (ERT)

It is noted that the JSRDE project intervention in crop diversification caused some kinds of social changes among the villagers. When goats damaged the vegetables in the demonstration plot, pasturing of goats in the village was immediately forbidden and this notice was delivered to all of the villagers by the cooperative.

Moreover, the demands for new crop varieties and livestock such as soybean, banana, duck etc. significantly increased among the farmers. The cooperative took initiative to collect orders and money for soybean seed, banana seedlings and ducklings from the interested farmers, then asked the JSRDE to assist to supply those new varieties. The JSRDE provided the

transportation cost and sent the farmers and the project staff to look for good quality seeds. Those crops, which the farmers voluntarily afford by themselves, have shown positively good result.

3.3.2 Findings: People's Real Need

It might so happen that we would have failed to identify the 'real' need of the farmers to improve cropping pattern, in installing DTW through JSRDE project. We must remind that the needs should be identified with the assumption that there is no external fund available. The programmes are to be planned in such a way that the villagers can carry them out by themselves. It is very important to identify first of all every piece of dormant resources such as human, technologies and materials available in a village and then to mobilize those resources for development.

Here we argue upon the nature of technology which the villagers really need. Crop diversification technology introduced by the JSRDE project is free from drastic reformation of the farming environment. It consists not only of minor innovation of the cropping pattern but also adaptation of cropping pattern to the existing environment (Figure-9). We term this technology as Environment Adaptive Technology (EAT).

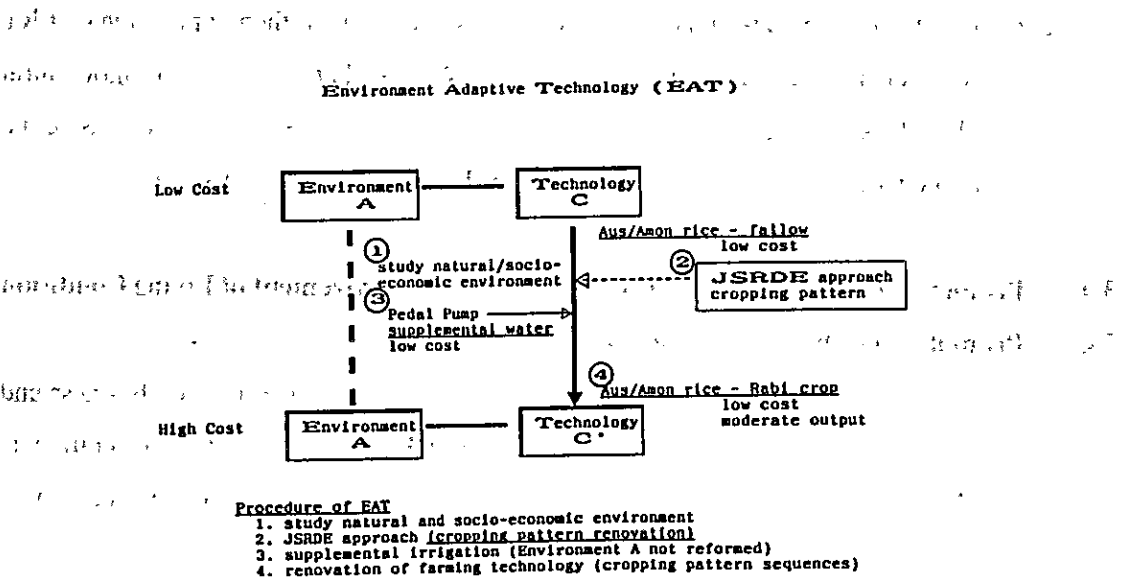


Figure - 9 Environment Adaptive Technology (EAT)

As it is known, EAT requires moderately low input and it enables farmers to implement with their own cost and will. It is easy to assume that sustainability of EAT will be higher than that of ERT. We summarize the findings as follows.

Environment of Austodona is dry in winter and very little irrigation water is available. Boro rice cultivation requires sufficient irrigation, but Rabi crop cultivation requires only supplementary irrigation which is less than needed by a Boro Crop. 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 in the environment.

It is obvious that sustainability of ERT is very low, because farmers' ability of finance and operation of a DTW is still low at Austodona. We can draw a conclusion that the technologies that the villagers of Austodona have adopted may also be "Environment Friendly Technology" (EFT).

It is our experience that before a 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 are improved among the farmers, then application of ERT should be considered as the next alternative option. We had better encourage agricultural technology that allows villagers' participation in handling and cost bearing, which has scope of marketing products. This is the notion of real need which we use in this report.

3.4 Promotion of Off-farm Income Generation and Improvement of Living Condition

3.4.1 Promotion of Off-farm Income Generation

All possible ways of the off-farm income generation, employment in service, self business and production related job have been sought by the JSRDE project and the cooperative at Austodona. No effective programme of off-farm income generation has been created as yet.

The cooperative of Austodona, as a financing institution, has supported individuals in income generation activities like small business, handicrafts making etc. Though, the handicrafts making is generally mentioned as one of income sources in the rural Bangladesh, any design

of handicrafts making is not followed at Austodona. Only four women who got trained before joining present families at Austodona have skill of making handicrafts such as fishing net, mat and bamboo crafts making. Since Austodona is situated far away from markets for these handicrafts, the villagers have hardly showed direct enthusiasm to promote handicrafts production. Products made by the women are usually sold one by one in the village or nearby markets by their husbands. The most difficult problem faced by those women is marketing and financing.

The cooperative provided loans from the accumulation of thrift deposits of the members for those who have skill and a will for income generation, and they have acquired easier access to finance for their work. At present, some women has already formed own capital after careful utilisation of several loans from the cooperative.

Inspite of the efforts for seeking a possible ways of off-farm income generation by both the JSRDE project and the cooperative, no other effective programme directly related to income generation than the small credit programme for individual economic activities in this regard could be implemented till now.

3.4.2 Observation and Results of Loan Supply.

The Austodona cooperative as a mutual financing association has changed the off-farm income situation of the village to a certain degree. The interest rate of the cooperative loan is 20% for 6 months, that is 40% per year. Local money lenders lends money with 60-120% interest a year. The members of the cooperative can have access to relatively cheaper loan. Compared with the BRDB interest rate of 16% a year, the rate is higher. However, it can be mentioned that those who get back the profit as dividend for share are the members themselves.

The experience of savings and credit programme operated by the cooperative shows that it has contributed to resource mobilization within the village. Moreover, low dependency on the external resources have guaranteed 'sustainability' of the cooperative. That is the reason why the Austodona cooperative operates better than the existing cooperatives sponsored by BRDB. It is obvious that both financial and managerial sustainability of the mutual financing is higher

than BRDB type cooperative financing. This is due to less dependency on external financing, simple management and independent decision making systems.

The special features of the cooperative at Austodona are summarized below :

- (1) The Austodona cooperative played a role of a mutual financing association. The loans disbursed by the cooperative are totally financed from its own fund such as share and savings of the members. The loans are mainly disbursed to enhance individual economic activities of its members. BRDB cooperatives broadly depends on finance from the external agencies like donors and the banks. It can be said that the villagers of Austodona are practically mobilizing the fund of the village through careful handling of resources by the cooperative.
- (2) Austodona is a small village and its size and function are the same as a *Para*, where people are under the certain social habit and relation which keep the area free from troubles [Maloney & Ahmed : 76]. In October 1995, the cooperative covered all the households. Therefore, some social factors that work in the cooperative management can be called as the 'authority of the village society' or *Para* identity. This works more effectively than the cooperative discipline.
- (3) Loanees are strictly limited among the members of the cooperative who live in Austodona. Because so called 'authority' mentioned above usually functions well within the village. This ensures guarantee and security for money of both the loanees and the cooperative.
- (4) Demand for the loans from its members is high because of its easy access compared to those of the Banks and BRDB. Realization of loan goes on smoothly. This success is attributed to its right selection, supervision over the beneficiaries and community pressure.
- (5) The loans are used for diversified purposes such as consumption, education, social development, which certainly contribute to fulfillment of Basic Human Needs of the

group members. (6) A positive relationship has been observed between capital accumulation and expansion of village economic activities is observed. This relationship is to be a framework of sustainable development.

3.4.3 Improvement of Living Condition

Sanitary Latrine Demonstration

At Austodona sanitary condition, especially, around some poorest homesteads used to be very poor because there was no facility to defecate. This issue was raised at one of the weekly meetings of the cooperative of December 1993. As a measure to meet the situation, the JSRDE project suggested to set a simple lavatory with a hole and bamboo platform which they may afford by themselves. This suggestion created an opportunity for villagers to think about the importance of the sanitary latrine. After the motivation by the JSRDE staff, 9 sets of sanitary latrines which contains 1 slab and 5 rings, have been distributed to the poor families through the cooperative by the JSRDE. The beneficiaries of this programme provided labour and the materials for a shed. Nine sets out of total 10 sets were immediately installed but the rest of the sanitary latrines (1 set) could not be installed because one land less family had no place to install the sanitary latrine. Finally, the village leaders urged the neighboring households to provide a place to set the sanitary latrine for that land less family.

At present, the hygienic condition in the village has already been improved, numbers of people who defecate at the open land has drastically reduced. One of the episodes shows that 7 families share 2 sanitary latrines in a homestead. Through the project period, the villagers show more interest on multi-ring latrine rather than one ring latrine system which the government is recommending.

Electrification of the Village

In order to creation of the off-farm job opportunities and improvement living condition, rural electrification has been considered as one of crucial issues on rural development. Since Ratonpur and Dhuliamuri, the two neighbouring villages have got power supply, electrification is mentioned one of the keen desire of the villagers for rural development at Austodona.

In the early 1980's the villagers, by the leadership of the then UP member, formed a group to get electricity from Pally Biddut Samity (PBS) but in vain. PBS declared the village disqualified on the commercial point of view. In 1992 the same group under the MC of the cooperative applied to PBS for electrification again. PBS surveyed the village and made disqualified it again.

We came to understand that it was impossible for the villagers to get power supply under the present strict condition. However, the villagers and the JSRDE had kept on contacting with the PBS. Then, the General Manager (GM) of the PBS advised that only a special order by the Chairman of Rural Electrification Board (REB) in Dhaka could materialize the electrification in the village. On request by the JSRDE, the order for electrification was issued by the chief engineer of REB in Dhaka in May 1995. To fulfil the condition of PBS, in addition to the domestic use a sinking STW was advised by the GM of the PBS. Then the cooperative has formed a sub-committee for the electrification and started to mobilize villagers, finally one STW owner and 64 domestic users applied the installation of the meters to the PBS. After few months of negotiation, PBS approved to electrify the village in October 1995. The construction work was carried out in November 1995 and completed in December 1995. The villagers of Austodona finally got electrification on 14th December 1995.

The JSRDE considers the electrification will accelerate and encourage not only economic but also social activities of the village as one of the very important social infrastructure. This type of infrastructure will provide a sound basis of individual business activities such as STW and rice mill. A STW may certainly expand boro rice cultivation.

Maintenance of Village Road; Setting a Ring Culvert

At the north-east corner of the village, there was a damaged ring culvert, which was sanctioned by UP chairman a few year back. This broken culvert disrupts rickshaws' traffic and schooling of children.

It was observed that the villagers could repair the road which provide access to their own homestead. The village leader told that if a ring culvert pipe were supplied he would get the scheme approved through negotiation with the leaders of neighboring village and construct the culvert with voluntary labors in the village.

For this scheme 2 numbers of 24 inch diameter by 6 feet long concrete pipe, which costed Tk. 1800 was provided by the JSRDE project. This work was completed in December 1995.

These two episodes of community interests mentioned above clearly indicate some community interest oriented programmes surely facilitate the villagers' participation to the development activities.

3 Concluding Remarks

We have argued for a single institution which could realize common interest of the village through VCM and UCM. Keeping CVDP experience in mind, we developed the constitution of Austodona cooperative in its formation and function.

The Austodona cooperative has a feature of pursuing community interest in a integrated manner through establishing a single institution of a village. It differs, however, from CVDP in its emphasis on linkage to government services through VCM and UCM. Our experiences indicate that coordinating all the sectoral programmes at UP level through UCM and VCM is more effective than at a village level alone.

We have tried to uplift the Socio-economic condition in the village with establishing better linkage system with the governmental services. At the UP level a considerable number of NBD' assistants are posted. Under the JSRDE linkage system we organized VCM and UCM to bring those services available at the Thana level to the village. The JSRDE considers that the JSRDE linkage system is the key to a total rural development, and this linkage can uplift social aspect and standard of rural life.

As for the technology and the technological extension, the JSRDE has learnt that totally strange technology was hardly to be responded by the villagers. We have let the farmers adopt the technology suitable for them without much intervention. At Austodona the villagers have finally accepted the farming technology with the concept of EAT recommended by the JSRDE project. The experience of the JSRDE teaches that direct intervention through economic incentives may not work always. The possible strategies for farming technology extension are as follows;

- (1) Demonstration farm should be set up. The needs, desire and ability of the villagers are to be identified.
- (2) Technology should be transferred to those who really need it and have interest.

In Austodona a cooperative has emerged as a vehicle for rural development. It is noted again that the cooperative has been formed within the jurisdiction of Austodona and covered all households in the village. With this background, the cooperative has played an important role in villagers' earning livelihood in and around the village.

Gradually the villagers of Austodona have come to realise the limitation of the development activities of the cooperative, that is the cooperative has well facilitated economic activities but hardly promoted community interest among the villagers. Therefore, in the recent past they have changed the name of the cooperative into Austodona Village Development Society (AVDS).

The villagers' participation for the community development activities and even for the activities of the cooperative have remained low. It seems that the villagers have not yet well understood the community development through the cooperative. The question is whether the cooperative will be able to play the role as a village institution for community development, not only in economic activities but also in social activities connected with community interest.

It is too early to evaluate the effects of the JSRDE approach in Austodona, because the villagers are still making efforts to improve their livelihood and social life under the framework which the JSRDE has been showing. A few positive and explicit signs of encouragement has already been observed. One is that the neighbouring villagers of Durgapur south to Austodona has formed the same type of cooperative because of demonstration effect of Austodona. Another is that the linkage system of UCM is learnt and practiced in the Shilmuri South Union in Barura by the decision of TDCC [GOB : 1995].

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Photo 3 Land prepared for banana plantation

A Sample of the Minute of Union Coordination Meeting

**JSRDE Project
Austodona, Barura, Comilla
Minutes of the 26th Union Coordination Meeting**

Venue : Office of the South
Payalgacha Union
Time : 11:00 a.m.
Date : 8.11.1995

Chairperson : Mr. Delwar Hossain, Chairman, South Payalgacha Union Parishad.
Co-ordinator : Mr. Mafizur Rahman, Thana Rural Development Officer, BRDB,
Barura, Comilla.

Other Participants :

1. Mr. Kichiji Yajima, JICA Expert, Dhaka.
2. Mr. Swapan Kumar Dasgupta, Deputy Director, BARD, Comilla.
3. Md. Tajul Islam, Livestock Assistant.
4. Mr. Md. Zillur Rahman, Block Supervisor, Laxmipur Block.
5. Mr. Md. Sanullah, Artificial Insemination Assistant.
6. Mr. Neel Ratan Acharje, Inspector, TCCA, Barura.
7. Mr. Sukhranjan Das, Inspector, Family Planning, Barura.
8. Ms. Fatema Akhter, Family Welfare visitor.
9. Mr. Md. Nazrul Islam, Organizer, Poverty Alleviation Programme, BRDB, Barura.
10. Mr. Mir Md. Abdur Razzaque, Asstt. Inspector, Health and Family Planning Dept., Barura.
11. Mr. Md. Shah Alam, Union Leader, VDP
12. Sreemati Kalpana Rani Dey, Union Women Leader, VDP
13. Mr. Md. Solaiman Majumder, Mechanic, DPHE, Barura.
14. Mr. Md. Mahiuddin, JSRDE Project Staff.
15. Mr. Md. Abdul Jalil, JSRDE Project Staff.
16. Mr. Md. Mustak Ahmed, JSRDE Project Staff.
17. Dr. Md. Abdul Jabber, UP Member, Ward No.-1.
18. Mr. Haji Md. A. Majid, UP Member, Ward No.-1.
19. Ms. Saleha Begum, UP Member, Ward No.-1.
20. Babu Amulya Chandra Das, UP Member, Ward No.-2.
21. Sreemati Madhabi Baisnab, UP Member, Ward No.-2.
22. Mr. Md. Abdur Rahman, UP Member, Ward No.-3.
23. Mr. Md. Abdul Ali, Vice Chairman, Village Development Cooperative Society, Austodona.
24. Mr. Md. Shah Alam, Manager, Village Development Cooperative Society, Austodona.

After reading out the minutes of the 25th meeting by Thana Rural Development officer, Barura and Coordinator of the JSRDE project was confirmed subject to the following amendment :

1. Amendment :

1.1 In page no - 3, 5th para "For every children card should be given to each guardian" is to be written.

2. Follow up :

2.1 Distribution list of oral saline to be prepared mentioning name of the village and no. of beneficiary.

3. The officers and staff of the NBD presented their progress report on the last and today's meetings and schedule of field visit from this meeting to the next meeting one by one.

3.1 Family Welfare visitor

Her progress from 26.10.95 to 7.11.95 was as follows :
She gave the following treatment through the clinic

	Name of Disease	No. of patient
a.	Worm	20
b.	Weakness	30
c.	Gastric	12
d.	Night blindness	4
e.	Pain	5
f.	Scabbage	6

Besides these, she provided injection Dipu to 7 old and 3 new users. She distributed oral peel "Sukhi" to old 4 and new 2 persons and condom to 1 old person.

3.2 Block supervisor (Laxmipur Block)

He visited the following persons in Laxmipur Block from 26-10-95 to 8-11-95. He advised 15 farmers against pest attack of "Gandhi" insect. He advised 10 farmers to apply Bordo Mixture/Hinosan the control stem rot of paddy. He advised 20 farmers about saving of seed/transplanting winter vegetables, top dressing urea in the vegetable field and application of irrigation water and control of weed in the vegetable fields.

Besides these, he sowed the true seed of potato in the land of Messers Rafiqul Islam of Badarpur and Abdul Wadud of Daburia. He established demonstration plot at the homestead of Rafiqul Islam of Badarpur.

3.3 Inspector, Family Planning :

He presented the progress report of F.W.A.s under his control which are as follows.

Name of the Staff	Target of distribution of family Planning items	Achievement		
		Old	New	Total
a. Ms. Rekharani Dey	110	52	3	55
b. Ms. Archana Rani Day	105	44	2	46
c. Ms. Sandharani Chakarbarti	60	30	2	32
d. Ms. Alo Rani Karmaker	150	88	1	89
e. Ms. Dipali Rani Majumder	96	38	0	38

3.4 Mechanic, DPHE :

- (a) He repaired the tubewell of Austodona-village Development Cooperative Society on 30-10-95.
- (b) He visited the tubewell of Chandpur primary school and mosque of Nalua Chandpur on 5-11-95.

3.5 Organizer, Poverty Alleviation Programme, BRDB :

- a) He completed the writings of papers for organization of BSS group at Durgapur on 4-11-95. He also deposited a cheque of Tk. 40000 in the account for distribution of loan among 20 members.

3.6 Inspector, TCCA, Barura :

- a) He realized loan instalment of TK. 285.00 from 9 members of Ratanpur BSS on 25-10-95.
- b) He realized loan instalment of Tk. 900 from 7 members of Nalua Chandpur KSS on the same day.

- c) He realized loan instalment of Tk. 1300.00 from 7 members Nalua Chandpur KSS on 30-1-95.
- d) He gave reminder to 11 members Chandpur (M)KSS on 4-11-95 to repay their instalment of loan.

3:7 Artificial Insemination Assistant :

He presented his progress of activities which are as follows :

Description of work	Target	Achievement
No. of cows inseminated	n.a.	20
Pregnancy Test	n.a.	5
Collection of information of birth of calf	n.a.	6

4. Decision :

Assistant Health Inspector will inform the next meeting about feeding of vitamin - A to children. The statement should be village wise.

5. Misc. :

Deputy Director requested the members present to think about the fate of Union Coordination meeting after completion of the JSRDE project. In response Asstt. Health Inspector informed the meeting if instruction is issued from the higher authority they would attend the Union Coordination meeting.

TRDO also mentioned that if there is instruction from the departmental head it would be continued. He also informed that what would happen about supply of stationery after completion of the project, JICA Expert should think about this.

JICA Expert Mr. K. Yajima asked the opinion of UP Members about continuation and benefit of Union Coordination Meeting. In reply Dr. M. A. Jabbar from Ward No.-1 informed the meeting that this project is a realistic and effective step for development of villges. It is found that this coordination meeting were being held since one year. During this period NBD officers and field staff have been performing their duties well and people are getting service more than before. He requested the JICA expert to continue the project instead of closing it.

Mr. Amulya Chandra Das, U.P. Member from Ward No.-2 informed the meeting that Notice boards which were fixed in different areas of the Union that contained different information are beneficial to us. Before this system we did not get such benefit. Though JICA Expert returns to Japan, it would be better to give the responsibility of conducting the meeting to Mr.

Swapan Kumar Dasgupta and JSRDE staff Mr. Mahiuddin. They can conduct the meeting smoothly.

Chairman, Austodona Village Development Cooperative Society requested the Chairman of the Union Parishad to attend the Shilmuri (N) Union Parishad Coordination meeting to advise the meeting to be conducted properly.

In the meeting UP Member Dr. M.A. Jabber requested the JICA Expert to request the Govt. to extend the duration of the project. Mr. K. Yajima informed the meeting that the Govt. would be informed about benefit of Union Coordination meeting which are being held during last one year.

The Chairman thanked the participants for joining the meeting and ended the meeting with a request to attend the meetings to be held on 13th and 27th December, 1995.

Sd/- Illegible
Co-ordinator
JSRDE Project
and
Thana Rural Development Officer
BRDB, Barura, Comilla.

Sd/- Illegible
Chairman
Payalgacha(S) Union
Parishad
Barura, Comilla.

Distribution :

1. Honorable Member of the Parliament, Comilla-7, Barura, Comilla.
2. JSRDE Project Office, Dhaka.
3. JSRDE Regional Project Office, Comilla.
4. Mr. Swapan Kumar Dasgupta, Deputy Director, BARD, Comilla.
5. Thana Nirbahi Officer, Barura, Comilla.
6. Chairman/Secretary, payalgacha(s) UP.
7. JSRDE Project Office, Austodona.
8. Office File.

C. REPORT ON FANISHAIR VILLAGE :

1. Introduction

Rural development is a set of changes to be used in the daily lives of the rural mass for the betterment of their livings. It sums up the socio-economic changes and political, social and cultural dynamism, all meaningfully and collectively directed towards achieving a better life, better than yesterday; more prosperous with more opportunities; more descent with more freedom and harmony and more stable with better sustainability.

The key questions and the major clues formulated from the findings of the first phase study, aimed at ultimately uplifting the lives of the rural mass are the main concern of this joint study on the rural development experiment. Action programmes undertaken as the experiments in this project with four basic approaches to tackle the key questions on the basis of major clues aim at evolving a framework of rural development in the region of the project site. All these basic approaches are to support and promote the socio-economic changes in the rural region, consequently resulting in the development of the region.

However, rural development is relative in nature and its contents differ from place to place and also changes according to time. Thus, in experimenting the action programmes in the project site of the Chandpur region, certain aspects of the four basic approaches were more emphasized than the others in accordance with the location-specificity of the natural, cultural and economic environments. Typical method and technology, specific to the region, different from those in other project sites, were used even in the same approach. Again, some of the methods in these approaches had to be changed after the elapse of a certain time, as the impact of the programme for the villagers in their perception of rural development changed during the period. However, all four basic approaches were given due considerations while experimenting all action programmes in the project site. The relations of action programmes with the basic approaches are shown in Table 1.

Table 1 : Relation of Action Programme with Four Basic Approaches

Action Programme	Instituti.	Linkage	Technol.	Nonfarm	Period
< Village Level >					
Savings Cooperative	***	***	**	*	12.92-12.94
Village Development Committee	***	***	**	*	1.95-
Small Polder Cultivation	***	*	***		2.93-12.94
Pond Fish Cultivation	***	*	***		2.93-12.94
Marsh Fish Cultivation	***	*	***		3.94-12.94
Fish Nursery	***	***	***		1.93- 8.93
Small Polder Construction	***	*	†		1.93- 3.93
Village Road Construction	***	*			10.95
Marshes and Roads Repairing	***	*	*		1.94- 2.94
Mosque, <i>Eid-ga</i> Repairing	***	*			6.95
<i>Sako</i> Construction	***				7.95
<i>Moktab</i> Construction	***				10.95-
BRAC School Establishment	**				10.93
Sanitary Latrine Installation	***				12.92-12.93
Intensive Landuse Demonstration	***	***	***		12.92- 6.95
Banana Cultivation Demonstration	***	***	***		5.93- 6.95
< Union Level >					
Union Development Committee	**	***	**	*	3.94-
Medium Polder Fish Cultivation	***	***	***	**	1.94-
Medium Polder Construction	***	***	**	**	1.94- 3.95
<i>Gram</i> road construction	***	***			4.95- 7.95
Bamboo-bridge Construction	***	***			7.95
Livestock Vaccination	***	***	*		3.94-
HYV Poultry Introduction	***	***	***		2.95-10.95
Commercial Vegetable Introduction	***	***	***		2.95- 6.95
Tree Plantation	***	***			7.95-10.95
Medicine Delivery	***	***			2.95- 6.95
Notice-board Installment	***	***			3.94-
< Thana Level >					
Fishery Training	*	***	***		5.93- 5.94
Fishery Technical Support	*	***	***		2.95-
Poultry Development Training	*	***	***		8.95
Thana Information Delivery	**	***			3.94-

Remarks : *** --- deep relationship, ** --- moderate relationship, * --- slight relationship

Some of the main action programmes undertaken in this project site are discussed in the following sections. But, before that a brief outline of the project village, Fanishair is shown in Table 2 and its relativity to the vicinity in the Union is shown in Figure 1.

Table 2 : Project Village at a Glance

< Location >

Old Meghna Estuarine Floodplain (AEZ), Chandpur District, Faridganj Thana, Subidpur East Union. 20 km east of Chandpur city, 12 km north-west of Faridganj Thana head quarter, on the bank of Kamta *Khal*, the tributary of Dakatia river.

< Area and Land-type >

Total 225 acres, residential 20%, lowland 70%, highland 10%

< Population (all muslims) >

Total 1,446: male 53%, female 47%; children 49%, 252 households

< Landholding >

Very skewed; bottom 50% of households hold 10%, top 5% hold 30%.

Landless 14% of total household.

(more than 30% if include functionally landless)

< Facilities >

Government primary school, Mosque, *Maktab* in the village

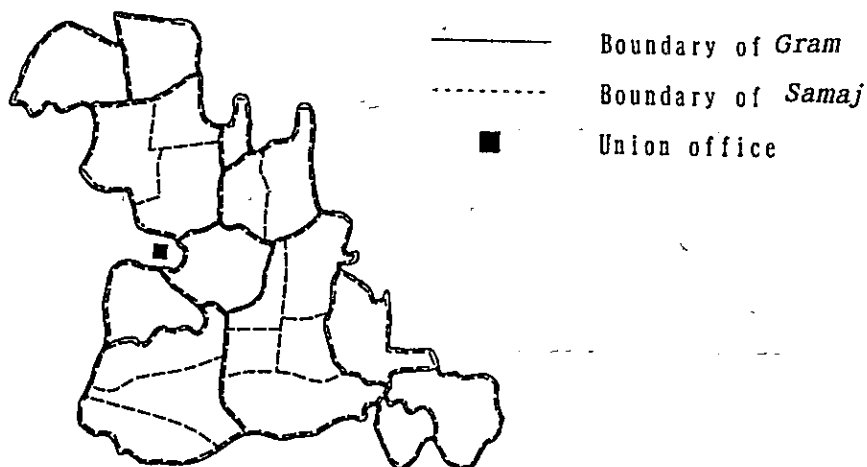


Figure 1 Gram and Samaj in Subidpur East Union

Historically, the basic institution of the rural people is family which extends sequentially upward to *Bari*, *Samaj* (*Para* or hamlet), *Gram* (village). *Fanishair Gram* is equivalent to one *Samaj* (natural village), whereas, in other large *Grams*, *Gram* is an association of a few *Samaj*

(figure 1). *Para* is not seen in Chandpur region.

2 Village Institution

2.1 Village Structure in F Gram

Villagers in F gram are classified into three strata, the stratum of influential persons at the top level followed by medium and low strata. There are four major factions in the village, namely SI, HM, KA and JO groups. SI and HM groups, which have strong decision making power in the Gram, are based on traditional kinship relationship. Each group had a strongly influential person in the area in the past and is now composed of the patrilineal descendants of the said influential persons. Because these two groups have strong power in the *Samaj*, most of villagers of F Gram are divided into these two groups. JO group consists of young men aged around 25 years, and it extends over all factions (see Figure 2). KA group is small group segmented from SI group due to serious land dispute in the past. Three persons are classified into the class of influential persons, the leader of SI group who is at the same time the leader of F Gram; *Matabbor*, and the leader of HM group and KA group.

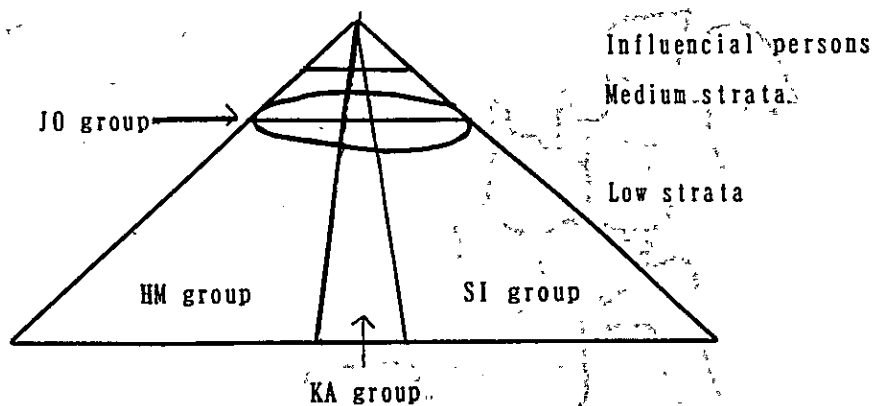


Figure 2 Conceptual Stratum of Village Social Structure in Fanishair Gram

2.2 Traditional Decision Making Process

F Gram has history to construct primary school, *masjid*, road by the donation of land and

subscription from villagers. Development work is planned only among some influential and medium stratum persons in the village. Villagers of low stratum don't know even the existence of the development plan. "The decision making by some influential persons" is one of the characteristics of traditional decision making process. Development work initiated by active young men's group as JO group can not succeed unless they are supported by other influential persons in the village. Meetings are rarely held for taking decision. Instead, the plan of development work is discussed among the influential persons at tea shop, and sometimes decision is made there. The development work successfully carried out in the past has the following common features. Firstly, all influential persons had the interest in the plan and they commonly agreed to it. Secondly, development plan was of high public interests and almost all the villagers tacitly agreed to the plan. Thirdly, as there was an informal linkage between concerned governmental officers and the influential persons, information on the plan was channeled to the villagers through the influential persons. They also negotiated with the officers as the representatives of the villagers and served as saucers for administration, besides playing role in construction of infrastructures and holding of cultural and religious functions.

In our experiment, two kinds of village institutions, "savings cooperative" and "village development committee", were tried out. Then, these were compared to traditional decision making process in the village. Finally, some points were discussed on the village institution as the saucer for administrative service delivery and the consolidator of the development programme.

2.3 Savings Cooperative

In December, 1992, F *Gram* savings cooperative was established, under the name of "Fanishair Comprehensive Village Development Cooperative", which served as the representative organization in F *Gram* from December 1992 to January 1995. It was originally initiated by the proposal of the leader of HM group which was not easily recognized by the members of another big group; the SI group at the initial stage. Through operating some activities, the two major factions gradually went on to the direction of mutual cooperation, and the cooperative increased its members to 580, covering 90% of the total households in the village. Among these members 299 were males, 137, females and 144,

children. The children were considered as associate members. About 10% of the households refused to enter the cooperative, either because of their faith (they believed Islamic rules do not permit taking interests) or their fate (some were too poor to pay the monthly savings).

Managing Committee (MC) of the cooperative consisting of 9 members including the Chairman, Vice-Chairman and Manager was organized in July, 1993 by mutual selection. The post of Chairman was given to the *Matabbor*, the ascribed leader of F *Gram*. The leader of HM group, the second largest faction, was designated for the manager. The leader of KA group was made the Vice-Chairman. The rest six members were all the leaders of six *Baris* who form the medium stratum of the village social structure. The cooperative started to operate smoothly under this organization. This means, the cooperative activities, a development programme in a broad sense was functioning under the influence of the traditional decision making process in the village. Conversely speaking, if village development programme is not planned under this traditional decision making process, the activity does not smoothly advance.

This fact is further made clear by another incident of development programme of electrification of the village. This programme initiated by JO group could not materialise, inspite of being able to draw keen interest from many villagers, as they could not convince the influential persons in the village.

However, after a lapse of some time, an influential person brought up the matter once again to the villagers and the programme moved very quickly. A survey team from the Rural Electrification Board surveyed the site and the village would be electrified in no time.

2.4 Savings Cooperative Activities

The main activities of the cooperative were, 1) capital formation by collecting membership and the monthly fees, 2) undertake income generating activities, such as fish culture and make plans for infrastructure work, 3) serving as a saucer of administrative services and 4) support enterprising activities such as, financing small business of members. The cooperative tried to gain income through rearing fishes in derelict ponds (5 in 1993, 2 in 1994), in small polders

(1-3 acres paddy fields; 2 in 1993) and in marshes like *Gor, Doba* (3.48 acres in 1994). The cooperative made a good profit through these activities. At the same time, these ponds and fields served as demonstration plots and played an important role in extending fish cultivation even to adjacent villages in the region.

Observing the results of pisciculture in 1993, landowners of four ponds and of two "1-3 acres paddy field" decided to cultivate fishes themselves in the second year. The owners of the marshes also followed the suit in 1995. The cooperative leased out one pond and one marsh (*Gor*), which covered 3.48 acres. The *Gor* is owned by villagers of seven *Bari's* and they all have right to be involved into pisciculture in the *Gor*. The cooperative again could make a benefit through pisciculture activities. Observing the result of pisciculture experiment made in the *Gor*, the landowners decided to cultivate fishes by themselves in 1995 in the form of joint investment and enterprise.

Here it is important to notice that the village based organization as cooperative is the only institution which can form the consensus of landowners and mediate disputes occurred in the process of pisciculture experiments. Traditional village structure and traditional decision making process built in the cooperative are used for making pisciculture experiments and for encouraging pisciculture in the *Gram*.

The cooperative worked for a saucer of administrative services. In March and April 1994 the Livestock Field Assistant (LFA) vaccinated and inoculated twice the cattle (76); duck (75) and hens of the village. The manager of the cooperative collected fund from beneficiaries, Tk. 2 for a cattle and Tk. 0.5 for duck and hen. A part of the charge was given to the LFA and the rest was paid to the cooperative fund. It was interesting that non-member of the cooperative also got the service of the Livestock Officer under the coordination of the cooperative. This could again mean that the MC for the sake of village totality did not want to create demarcation between the cooperative members and non-members. But, strictly speaking, if the savings cooperative serves as a saucer of administrative services, non-member of such cooperative can not get any governmental services. So, the vaccination service of LFA should be considered to be given through traditional decision making process under traditional village structure, not through the cooperative.

MC decided to finance villager's small business in May 1993. The amount of loan extended from several hundreds to several thousands Tk. Although it is true that this programme contributed to encourage small business of villagers, as we feared from before, some villagers, who were financed several thousands takas and defaulted to pay. Therefore, it became one main cause for which the accounts of the cooperative turned unsound.

The cooperative was encouraged to construct some small scale infrastructure in the village using their saved funds from time to time. The only infrastructure they took initiative to build was inter-Bari road for rearing fish in Gor by bearing 1/6 of the total cost. Rest of the cost was born by external sources. However, non income generating infrastructure such as construction of cooperative office building, could not be approved though their saving fund amounted to a big sum (2.2 lakh) and there was an external source which could born the half of the estimated cost.

This leads us to say that the cooperative savings is not always suitable for encouraging small scale infrastructure, although this is possible by transitional method of subscription and people subscribing according to their abilities. For the villagers, these are completely two different things. They saved their deposit to the cooperative in order to make profit through village scale economic activities and they don't want to block their savings for non-profitable public service work.

2.5 Management of the Savings Cooperative

2.5.1 Pro Financing Activity Period, (Dec., 1992 -- Aug., 1993)

MC decided to hold monthly and general meetings on the first and second day of every month respectively. One of the main agenda in monthly meeting is to report the monthly account statement by the accountant taken in charge by the manager. Although the manager declared the account note was open and anyone could see and check it, no villager tried to verify. The manager made oral report of monthly statement in MC and in general meetings. At times, the audit team consisting of people other than the MC members verified the account on the proposal of the other MC members. So, it can be said at that time, that the influential persons in the *Gram* could be checked by each other. Almost all the saved amount was

deposited in bank. MC member made a resolution that whenever there was a necessity to withdraw money from bank, all MC members must approve it. They were examining how this could be registered formally in some governmental bureau at that time. In the MC meeting held on August 3, 1993, MC members made a resolution that the manager could only use Tk. 500 for official purpose without permission of MC members. At that time, the cooperative was soundly operated following their created bylaws.

2.5.2 Post Starting Financing Activity (Aug.,1993 -- Aug.,1994)

Financing loan for small economic activities of villagers was decided in MC meeting held on May, 1993. It was started with the strong requests of general members. Because there were many applicants for loans, firstly, MC tried to ease the pressure from general members by attaching conditions for financing. But, the pressure from general members mounted more and more, and when MC refused to finance, they spoke ill of MC members. Yielding to the pressure from general members, more than half of the funds of the cooperative were lent out by October, 1993. As of December, 1993, Tk. 53,000 for 45 persons were lent out (At that time, total amount of funds was Tk. 65,000). The conditions of the cooperative rapidly deteriorated after under taking such financing activities.

There the manager had a hard job to press debtors for repayment. As the manager had to actually handle large amount of cash for financing, almost the entire fund was withdrawn from the bank. And, for the same reason, the manager used to keep in his pocket the monthly savings collected from members. In this confused condition, MC members gradually turned to show disapproval for registering it to BRDB. So, although JSRDE staffs strongly recommended to register with BRDB, only a part of members were registered with BRDB in October, 1993. Although a JSRDE staff pointed out some unfair expenditures in detail through the account of the cooperative looked sound in general, and the general members kept a keen interest to examine the account in next general meeting. But, although JSRDE strongly recommend the cooperative not to finance projects they decided to continue it upto June, 1994 in the general meeting held in January, 1994.

2.5.3 Disintegration of the Savings Cooperative (Aug., 1994 -- Jan., 1995)

Observing some general members strong suspicion that the manager was manipulating accounts, JSRDE project suggested them to have audit of Thana Cooperative Office in January, 1994. But, even the members, who suspected the manager, rejected the proposal of JSRDE project. At that time almost the entire fund of the cooperative was still with the manager and debtors. After June 1994, the financing activity was continued against the former decision. The amount of financing amount was, however, restricted to Tk. 300 which was equivalent to the amount of savings of each member. In addition to it, MC members overlooked that those who could not repay the debt bought the membership to other member. Out of 581 memberships, 115 memberships were sold out to other members.

The condition of the cooperative have been deteriorating since then. The policy of the cooperative used to be decided entirely by MC. Against the criticism from JSRDE project, MC decided not to deposit the funds in a bank but to trust manager with overall money as hand cash. They explained the reasons that it was troublesome to come and go between *Gram* and bank, and manager often had to handle money for financing and for pisciculture business. This resolution was proposed to general meeting and was approved by general members. No member had strong opposition to the resolution. The system of keeping each other in check among influential persons in MC members then gradually broke down.

Besides this phenomenon, general members gradually lost their interests in the cooperative. This condition appeared in the form of very poor attendance at general meetings. Then, monthly general meeting came to be rarely held. In this situation, MC secretly decided to share the hand cash among a few MC members. And, clearly unfair expenditures had appeared in the account, but, MC members gave tacit consent to it. General members had no opportunity to know about it. In December, 1994, these facts came to lime light, and MC was strongly accused of turning public funds to private use in general meetings. Many general members requested them to return their savings with some amounts of profit. They stopped collecting savings in January, 1995. In February, 1995, members decreased from 561 to 134. Out of the overall funds, Tk. 19,250 was the amount of loan, Tk. 11,000 was in bank deposit and in BRDB; Tk. 2,050 was debt except loan, and Tk. 10,290 was still cash in hand. The

savings cooperative actually suspended its activity.

2.6 Decision Making Process in the Savings Cooperative

When savings cooperative was established as a representative organization in *F Gram*, (a typical village), villagers selected members of MC based on traditional village stratum structure and structure of factions in the village. This means decision making process on all cooperative's activities follows indigenous decision making process of the village. This indigenous decision making process strongly has a character of "decision making by influential persons". This character also includes the both sides of factor "exercise power of influential persons" and "commit the right of decision making to influential persons". And, if influential persons cooperate among each other for one common interests, there is no internal control of power left in the village. While general members are interested in the performance of cooperative, they strictly inspect the activities and accounts of cooperative. In response to it, influential persons in the village kept each other in check, and cooperative soundly run following their bylaws. Information is smoothly delivered from top to down, and needs of general members is drawn up. But, once the performance of cooperative declined, villagers begin to lose their interests in the cooperative. Then, the system of information delivery and of inspection turn ineffective. And, the bad side of indigenous decision making process comes up to the surface.

The flow of information is the least necessary condition to run cooperative soundly. But, if influential persons don't the want flow of information, the system of flowing information itself does not work under the condition when many general members don't attend general meetings but request influential persons to allow the flow of information. The only control power comes from outside like audit of Thana level officer. But, considering the issue of bribery, it is quite doubtful that this external service has power to control the internal problem of cooperative. In fact, annual audit by Thana Office has not carried out in the first year. Rural development inspector often went to *F Gram*, but he could not give useful advice for resolving problems. Moreover, one Thana officer actually requested bribery when the cooperative applied for registration.

2.7 Village Development Committee

2.7.1 Outline of Village Development Committee

After the activities of cooperative turned moribund, the JSRDE project personnel and 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 (VDC). This committee was formed in January, 1995. The VDC consists of 15 members, out of which 13 members are leaders of different 13 *Baris*. The members of VDC selected two persons, one as Chairman and another as Manager on mutual understanding. The Chairman and Manager of VDC were the Chairman and Manager of the cooperative, respectively. Besides it, 7 out of total 15 members are also the members of the cooperative. This means that all members of VDC are classified into influential persons or medium strata persons and that VDC, as well as the cooperative, follows traditional village power structure which necessarily involves traditional decision making process.

2.7.2 Functions of Village Development Committee

JSRDE project personnel discussed action programmes which would have been made under VDC, and proposed the following matters. Firstly, VDC makes some development plans in village scale and implements it by self-raised funds. Secondly, fund is formed through traditional way, i.e. collecting a little amount of rice or money donated by the villagers (Table 3) for some religious functions villagers share the expenditure for holding the function. The shares are decided by the leader of the *Samaj* and two or three villagers appointed by the *Samaj* leader who go around the village to collect the donations. The amount of donations is different according to the economic condition of each household. Thirdly, the meeting of the VDC is held once in a month to discuss various problems of the village and also to formulate a village development plan.

The two selected villagers went around every *Bari* for collecting donation, a little amount of rice or money, every Friday, and almost all villagers donated. The collected donation was counted in front of other villagers and the amount was reported to villagers in the place of

Jummar namaj (the mosque). Walking to all *Baris* in the villages for collecting donation was too hard a job for collectors, but they voluntarily continued the job. This job was continued for six months and was tentatively stopped at the beginning of August because submersion of the road by flood water. The donation was kept in custody of a reliable person, the *Imam* (Moslem priest) and he also served as an accountant. Someone proposed that the leader of every *Bari* should take responsibility to collect donation from his *Bari's* villagers but the idea was not accepted. The total amount of donation equalled to Tk. 5,754 which was then deposited in the bank.

The meeting of VDC was regularly held after first two months and after that it was to be called in whenever needed. Out of fifteen VDC members, only six to eight members attended the meeting. The number of members who always attended meeting were smaller than that. Then after June, VDC meeting was never held. But villagers still went on with some village development works. In 1995, after formation of VDC, five development works were undertaken by villagers. Firstly,

Table 3 : Income and Expenditure of Village Development Committee in 1995

Income	Expenditure
Collecting a little amount of rice or money (Feb.17, Feb.24, Mar.24, Mar.31, Apr.7, Apr.14, Apr.21, Apr.28, May 5, May 12, May 19, May 26, Jun.2, Jun.9, Jun.16, Jun.23, Jun.30, Jul.7, Jul.14, Jul.21, Jul.28, Aug.4) --- 5,754 Tk	2 packages of cement for <i>Eidgah</i> --- 540 Tk 1,000 pieces of brick for <i>Eidgah</i> --- 2,200 Tk 150 feet of sand for <i>Eidgah</i> --- 1,200 Tk Carrying cost of cement, brick and sand --- 650 Tk Labor charge for <i>Eidgah</i> --- 1,010 Tk Labor charge for <i>Eid ghat</i> --- 4,064 Tk Cutting wood for <i>Maktab</i> at Kamta bazaar --- 100 Tk Carrying cost of wood for <i>Maktab</i> from Kamta bazaar --- 150 Tk
Donation for constructing outer wall of <i>Masjid</i> (Jul.18, Jul.21, Jul.25, Aug.12, Sep.29, Oct.13, Oct.15, Nov.3, Nov.7, Nov.8, Nov.12, Nov.14) --- 5,763 Tk	Deposit money in the bank --- 1,350 Tk travel cost to the bank --- 25 Tk Donation for <i>Owaj Maphir</i> festival held at Gollak bazaar --- 200 Tk Cost for <i>Maphir</i> festival at the <i>masjid</i> --- 587 Tk Donation for <i>Owaj Maphir</i> festival held at Basara bazaar --- 1,000 Tk Cost for <i>Maphir</i> festival at the <i>masjid</i> --- 1,379 Tk
Donation for constructing a gathering place of <i>Eid</i> festival (May 5, May 8) --- 600 bricks, 5 packages of cement, 800 Tk	Set up a bamboo bridge on the road to primary school --- 200 Tk Repair a coffin in <i>Masjid</i> -- 330 Tk Purchase materials for making front yard of <i>Masjid</i> --- 741 Tk Labor charge for making front yard of <i>Masjid</i> --- 1,208 Tk Purchase materials for outer wall of <i>Masjid</i> --- 5,430 Tk Labor charge for constructing outer wall of <i>Masjid</i> --- 990 Tk

Remark : *Eidgah* means the gathering place for mass prayer of *Eid*.

it was to construct a *Shako* (bamboo bridge over a canal or narrow water body) from village road to primary school, which was tentatively laid in rainy season for the convenience of children's walking to school. It costed Tk. 200 Secondly, it was to raise and widen the road from village to primary school and from Gaji *Bari* to primary school. It costed Tk. 3,200 Thirdly, it was to construct the prayer place of *Eid* festival. It so far costed Tk. 9,898 and was not completed. Fourthly, it was to construct the outer wall of *Masjid*. Now the construction work is going on and it so far costed Tk. 8,699 Fifthly, it was to construct the place for *Maktab* (Islamic primary school for children). Now the construction work is going on and so far costed Tk. 250. The most essential point is that, although VDC was formed, the decisions on these five village development works were all made under traditional decision making process.

2.8 Two Institutions (Formal and Informal) and Traditional Form

Table 4 shows the difference in the functions among village savings cooperative, VDC and traditional form. Here, traditional form means traditional decision making process under village structure explained in paragraphs 2.1 and 2.2. In case of savings cooperative, it is generally so difficult to include all households in the village that savings cooperative can rarely serve as a saucer of administrative services. If a savings cooperative, which does not include all households in the village, acts as a sauser of administrative services, it may lead to some free riders, because administrative services and information originally have a nature to be supplied for all households in village. Besides, village cooperative has been recognized, through experiment, that it has poor accountability even for enterprising body, including money lender.

Table 4. Functions of Village Savings Cooperative, of Village Development Committee and of Traditional Form

Function	Cooperative	Committee	Traditional
Saucer of administrative services	X	O	O
Enterprising body	?	X	X
Constructing infrastructure	X	O	O
Traditional cultural functions	X	X	O
Remarks: O --- function, X --- not function, ? --- doubtful in feasibility			

There seems some similar functions between VDC and traditional form. But, the one of the important points is feasibility and durability of each institution. Judging from our experiments, even under the condition that village savings cooperative or VDC was in existence, decision concerning several functions as "saucer of administrative services", "constructing infrastructure" and "traditional cultural functions" were made under traditional form. Under linkage model and Union development programme, several governmental services were given to *F Gram*. VDC was expected to become a saucer of these services. But, as mentioned in detail in the next chapter, in some service delivery programmes, no villager served as a coordinator between villagers and officer when officer visited *F Gram*. And, as observed in some infrastructure construction programmes; which have common interests with villagers and some villagers positively helped the implementation of the programme as coordinator or mediator. In this case, those who acted as coordinator or mediator were influential persons in *F Gram* like the leader of HM group. But, those persons would act as coordinator or mediator whether VDC is in existence or not.

2.9 Is Village Institution Really Needed ?

2.9.1 In case of small Gram (*F Gram*)

In each *Samaj*, there is a recongnized *Mattabor*, who as village leader along with nominated five to six members conduct *Bichar* (Trials). They work voluntarily as if it were their honourable job. *Mattabor* and *Bichar* members, who are influential persons in *Samaj*, work also as decision makers not only in social but as well as in in development functions, which are exercised through the activities under VDC. They are tacitly selected under a mutual understanding among villagers. For selecting them there is no formal procedure, such as general election or decision by majority in the meeting. This is a traditional and an inherent organization in the village. What we have to consider in forming organization in village is to adapt this characteristic in the structure of it. Villagers themself know how to form institution in their village for the purpose of village development. That is why two institutions, savings cooperation and VDC, have similar structure and decision making process inspite of the functions of two institutions are little different.

Infrastructure construction is one of the major concern of villagers. We need to divide infrastructure programme into two types. One is the programme in which all villagers can have a common source of profit from infrastructure construction, and another is the programme in which interest of villagers is sharply divided. The former is applied to almost all kinds of infrastructure such as educational facilities, hospital, bridge, etc., while the latter is limited to a few cases such as road construction and laying culvert. In road construction, some villagers face damage because they lose their lands by it. So, sometimes villager who has keen interest in road construction directly apply it to Union Chairman or Union Members without discussing the plan with other opponent villagers. As Union has a power to go on with the plan sometimes by force in line with common interest of most of villagers. Hence road construction has been undertaken by Union at the sacrifice of minor oppositions. The construction plan of other kinds of infrastructure, on which all villagers have a common interest, however, are made by the mutual consent among influential villagers. Firstly, this means that it is difficult for villagers to reach a mutual consensus for the construction of a new road even in case VDC's existence because VDC members are probably also divided into two groups. At the same time, villagers may not regard VDC as an important decision making body. Secondly, as new road construction has been already completed in Chandpur region before 1990s', there remains a little infrastructure construction, which requires mediation between two opponent groups¹⁾. In the lights mentioned above, any other village institution is not needed in *Samaj* level.

2.9.2 The case of Large Gram

F. Gram is equivalent to a *Samaj*, because it is relatively small. But, out of twelve *Grams*, seven *Grams* are composed of two to five *Samajs* in Subidpur east Union. In these rather big *Grams*, one needs to consider the village institution. Traditionally, the village functions deeply concerning to villager's daily life and are endowed with the unit of *Samaj*. Villagers have traditional village organization, at the top of which *Matabbar* and *Bichar* members are situated, in the unit of *Samaj*. But, governmental bureaux have been making use of *Gram* as a unit for administrative activities, say, for the election of *Union* Chairman and Members, for delivering relief material and for collecting tax, etc. So, villager's interests merge in the unit of *Gram* for external matters, while they merge in the unit of *Samaj* for internal matters. But,

originally *Gram* is an association of *Samajs*, and doesn't have any traditional organization. It is certified in our activities that sometimes the interests between one *Samaj* and its neighboring *Samaj* are divided. In "pisciculture in 175.1 acres polder programme", villagers in Telishair *Gram* east *Samaj* agreed to the programme, whereas villagers in Telishair *Gram* west *Samaj* united in the unit of *Samaj* and opposed this programme. Here, we found no bonds of unity in the unit of *Gram* in Telishair *Gram*.

There is another evidence about the characteristic of *Samaj*. The following is finding concerning the present decision making process for the construction of small scale infrastructures, which was planned from the former survey in this area. The planning to construct small scale infrastructure has been made in the unit of *Samaj*, with the exception of the construction of village and Union roads. Primary school, high school, post office, *Masjid*, *Maktab*, bazaar, *Madrassa*, etc., have been initially constructed by villager's donation and subscription. *Masjid*, *Maktab* are, in this way, constructed in every *Samaj*. And, an interesting fact is even the small scale infrastructures, whose beneficial area extends over to more than one *Samaj*, say primary school, high school and post office, are also planned in the unit of *Samaj*, neither *Gram* nor *ward*. And, it obtains donation of the construction site and the subscription for construction costs by villagers of the *Samaj*. Local administration also helps the plan with subsidy.

In this context, the best way is to select a deligate from every *Samaj* in a Union which constitutes a Union *Parishad* (UP) for planning the project of villagers common interest for the UP. But, in this case, there are 22 Members of UP in Subidpur east Union. This is too large to discuss and form a consensus in the Union. On the contrary, if one deligate is selected from every *Gram* and constituent UP, the total Members become 13 including the Union Chairman. In comparison to the total number of Members under the existing UP system, this number is not so large to discuss and form a consensus in a Union. This form is also suitable in the light of the nature of a village. Villagers assemble in the unit of a *Gram* to discuss some external matters. This discussion means our proposal is just for reformation of the existing UP system, not for establishment of anything new institution at the Union level.

If only one representative is selected from a *Gram*, how he can draw up the common interest of *Samaj* people and speak for them in UP meeting for making Union plans. It might be easy to guess that he can only hear the voice of his original *Samaj*, and people's voice of other *Samajs* are not reflected to UDC meeting. To prevent this it is recommendable method to elect *Gram* deligate by direct election in place of the existing system to select UP members. If villagers think that he does not work well, they can elect other suitable person in the next election.

We have an example here concerning small scale infrastructure programme. In the Union coordination meeting, an Union member in L *Gram* proposed to repair a small road and some bamboo bridges in in the *Gram* which was damaged by flood. Although the Member lives in west *Samaj* of L *Gram*, repairing small scale road was carried out in two places. These were in West and east *Samaj*, and the bamboo bridges were constructed in five places but these were in north east, east south and west *Samaj*. He knows well the conditions of his *Gram*, the common interest of the villagers and problems in his *Gram*; and he can make a plan based on to these factors concering small scale infrastructures. He does not make plan in favor of his *Samaj* only. Another important point is that he could not but discuss with influential persons in the *Gram* to design the structure and to procure the matterials like earth and bamboo for the proposed construction. He first contacted the most influential persons of the *Samaj* to consult it.

The most important factor to be considered for a village institution is to comprehend a big *Gram* as an association among two to five *Samaj*. The relationship between *Gram* and *Samaj* (sometimes *Para* in other area) has not been deeply considered by planner and developer for rural development. In the *Gram* which consists of several *Samaj*, it is only needed that the delegate of the *Gram* and *Samaj* is to be recognized by all villagers, and that the deligate of *Gram* is selected by direct poll, because the delegate of *Gram* is also a member of UP. The delegate of a *Samaj* is recommended under mutual understanding of villagers. The delegate of *Gram*, Union member, discuss with *Samaj* leaders about village development programmes, tax collection, delivery of relief matterial, etc. when the occasion demands.

In the early 60s V-AID (Village Agriculture and Industry Development) programme was the first approach in the history of rural development in the then East Pakistan. Since village council was recommended to be organized in every village under the guidance of Harvard University team in V-AID programme, organizing village institution, regardless of informal or formal organization, it was considered as if these were quite common in rural development. Hence, we are proposing an alternative concept on village institution for the rural development in Bangladesh.

Some researchers point out that since village leaders have access to the administrative information will take advantage from for their individual profit. This problem can be solved by posting administrative information in the notice board of every *Samaj*. These information delivery service is to be initiated and supervised by Union level institutions. It's concern in the linkage model discussed in the next chapter.

3 Linkage

3.1 Present Condition in Administrative Service

3.1.1 Service and Information Delivery

As Subidpur east Union is located 12 km far from Faridganj *Thana*, the *Thana* Officers rarely visit the Union. Villagers can get administrative services only from those field officers stationed in Union level. **Table 5** shows the field work of Block Supervisor (BS) in Subidpur east Union in January, 1993. He visited only two *Grams* where he could easily commute from his home which was about 10 km away from the Union. His method of contact with farmers were divided into two ways, (a) BS met the farmer at *bazaar* and so on, and the farmer asked BS to inspect his plot (2 times), (b) while BS was inspecting the fields, he could examined the damaged crop and instructed the farmers how to improve it (5 times). Although the command area of a BS is comparatively smaller and the BS has more opportunity to give his services to farmers, almost all villagers reported him as "an officer never seen in their villages". The service rendered by the BS is limited only to the several farmers who could realize the effectiveness of the service well.

Table 5. Field Work of Block Supervisor in January, 1993 in Subidpur East Union

date	visiting Gram	service
2nd.	S Gram	Inspect potato plot of Mr. AM and direct him to irrigate his plot. This is one of the demonstration plots.
same	S Gram	Inspect demonstration plot of garlic.
same	S Gram	Boro paddy seed beds of Mr.YT was damaged. So, request him to spray insecticide.
6th.	K Gram	Direct Mr.AM to irrigate his boro seed beds. After that, as requested by Mr.AM, BS inspected his potato plot and direct him to spray insecticide.
same	S Gram	Inspect oil seed and potato plots of Mr.MU. Direct him to spray insecticide and to irrigate the potato crop.
same	K Gram	Direct Mr.HU to spray insecticide to his boro paddy plot.
9th.	S Gram	Inspect oil seed demonstration plot of Mr.AT.
25th.		Investigate the operating LLP in the Union.
27th.	S Gram	Inspect potato, sugarcane and boro plots of Mr. SA who also requested the BS to inspect his plots earlier.

In addition to the above condition, the followings are remarkable points on the present status of the delivery system of administrative service. Firstly, administrative services are informed person to person. Officers rarely give public information to villagers. So, most of the villagers do not know even the existence of the services. Secondly, the field officers do not provide the visiting schedule to the villagers. Who therefore can not know how to contact the officer.

3.1.2 Preliminary Attempt and Reconsideration

On the basis of above mentioned assumption, we established Union Development Committee (UDC) in March, 1994²). At the Union coordination meeting, visiting schedule of Block Supervisor (BS) and Livestock Field Assistant (LFA) were decided, and were informed to every *Samaj* by means of notices posted on the notice board which was fixed in every *Samaj* in three *Grams*, (five places in total). The result was, although the BS regularly visited the designated places (contact point) in each *Samaj* on the due day, and stayed there for a long time, a few farmers tried to get in touch with him. The status of service delivery was nearly

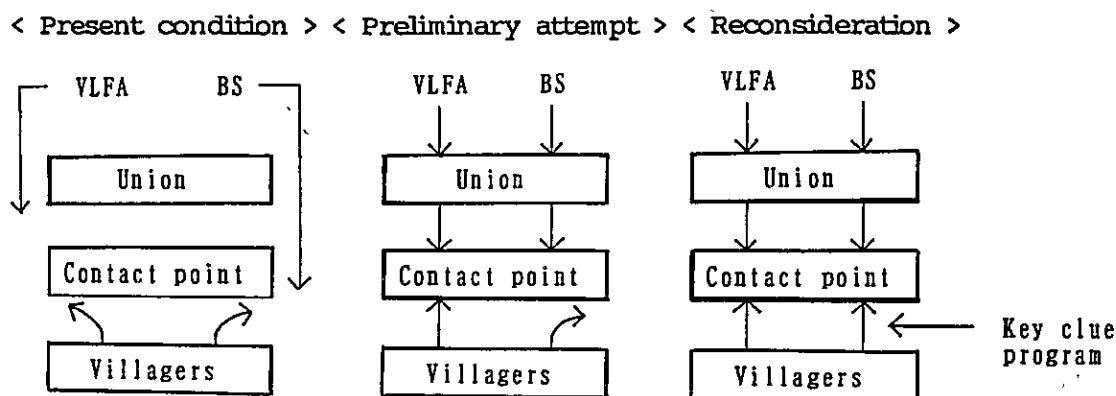
the same as before. Although there was a village institution in F *Gram*, the members of managing committee had not given any support to the service delivery of BS.

On the other hand, although LFA did not visit villages on due date, concerning vaccination service of domestic animals, village Manager in many cases acted as a coordinator to inform LFAs service date to the villagers who brought in many cattle, hens and ducks to get those inoculated and vaccinated. Many villagers paid small amount of fees to the Manager, then a part of the collected fees was paid to LFA as a travel allowance.

From these results and some additional findings obtained from former survey, we could know that the degree of villager's necessity or different needs according to the types of administrative services. In case of vaccination schedule of LFA, only adjusting the due date and contact point could draw farmer's interest for vaccination of these livestock. On the other hand BS could not induce any service of BS. However, there are some farmers who recognize the effectiveness of information and services of the BS. We have to acknowledge the importance of services rendered by the BS and have to look for the way to increase the number of such needy farmers who would recognize the importance of the BS's services.

This result led us to consider that some additional programme are needed which can serve villager's necessity or needs on administrative services. Another issue is a few "key questions" on agricultural technologies which were identified through an elaborate investigation in JSARD project³⁾. One needs to find how these location specific problems can be found by the villagers and officers, and be resolved? It may not be enough only fixing due date and contact point to resolve these specified problems. Of course, each BS has some extension programme, namely ASSP (Agriculture Support and Service Programme). However, it is doubtful that ASSP programme can resolve key questions. (a) This is because the content of ASSP is planned on the basis of specified problem in an area. (b) Because the content of demonstration plot is not so much useful to farmers, it does not cover the farmer's necessity or needs by the service of BS. (c) The demonstration plot is laid at such a place in the Union and most of farmers don't know even the existence of the demonstration plot. Suitable extension method is needed both to exploit villager's necessity and needs and to answer key questions in an area. Here, we would like to call this as an alternative approach as "key clue"

programmes. The conceptions of both preliminary attempt and later reconsideration are illustrated in Figure 3 with the present condition of service delivery.



Remarks : VLFA means Vaccination service of Livestock Field Assistant. BS means the service of Block Supervisor.

Figure 3 Preliminary Attempt and Reconsideration in Service Delivery System

3.1.3 Infrastructure construction

Table 6 shows construction works completed in Subidpur east Union in 1994-95. Under the present system on infrastructure construction, there are two major problems. One is concerned about medium scale infrastructure. Its construction plan is submitted to the Thana by Union Chairman but its design is totally left to the Ministry of LGRD and therefore becomes faulty. Because the design is drawn by the field engineer located at the central office. If the design is drawn carefully by the Thana engineers after surveying the area as well as construction plan, this kind of problems can be minimised. In most cases, the work gets defective due to inadequate fund and other causes associated with the Chairman.

Table 6 : Types of Construction Works in Subidpur East Union in 1994-95

Project	Construction work
Annual Development Programme (ADP)	(1) Wooden bridge in M <u>Gram</u> (Tk. 38,000), (2) Box culvert in L <u>Gram</u> (Tk. 50,000), (3) Box culvert in L gram (Tk. 17,500), (4) Box culvert in U <u>Gram</u> (Tk. 90,000), Total Tk. 195,500.
Food For Works (FFW)	(1) Dredging Basara canal (Tk. 23,000)
Local Government Engineering Department (LGED)	(1) Bridge in M <u>Gram</u> (Tk. 600,000), (2) Bridge in S <u>Gram</u> (Tk. 500,000), (3) Bridge in D <u>Gram</u> (Tk. 500,000), Total Tk. 1,600,000
Test Relief (TR)	(1) Repair primary school ground in S <u>Gram</u> (1.5 Ton of wheat), (2) Repair <u>Gram</u> road (2 mile) in U <u>Gram</u> (2 Ton of wheat), (3) Repair Union road (2 mile) in T <u>Gram</u> (2 Ton of wheat), (4) Repair <u>Gram</u> road (2 mile) in L <u>Gram</u> (2 Ton of wheat), Total 7.5 Ton of wheat
General Education Programme (GEP)	(1) Mortaring primary school in T <u>Gram</u> (Tk. 420,000), (2) Mortaring primary school in S <u>Gram</u> (Tk. 420,000), (3) Mortaring primary school in U <u>Gram</u> (Tk. 420,000), (4) Mortaring primary school in L <u>Gram</u> (Tk. 420,000), (5) Mortaring high school in B <u>Gram</u> (Tk. 800,000), (6) Mortaring high school in M <u>Gram</u> (Tk. 800,000), Total Tk. 3,280,000

Another problem is related to small scale infrastructure programme such as repairing Union and Gram roads and school ground, laying bamboo-made bridges and ring culvert, etc. These small scale infrastructures are strongly related to villagers daily life and are considered by villagers as a work of Union Parishad.

Table 7 : Small Scale Infrastructure to be Repaired or to be Constructed in the Project Villages

Village	Small scale infrastructure
F <u>Gram</u>	(1) Union road repair in front of T <i>Bari</i> (Tk. 500) and M <i>Bari</i> (Tk. 6,000), Kamta <i>Bazaar</i> -> M <i>bari</i> (Tk. 900), (2) <i>Gram</i> road repair to primary school (Tk. 5,000), (3) preliminary pavement part of Union road (Tk. 20,000) Total Tk. 32,400.
T <u>Gram</u> east Samaj	(1) Union road repair L <i>Gram</i> H <i>Bari</i> -> N <i>Bari</i> (Tk. 800), (2) <i>Gram</i> road repair in front of J <i>Bari</i> (Tk. 32,500), M <i>Bari</i> (Tk. 12,000) and <i>Madrasa</i> (Tk. 6,000), J <i>Bari</i> -> primary school (Tk. 7,000), L <i>Bari</i> -> B <i>Bari</i> (Tk. 4,900) Total Tk. 63,200
T <u>Gram</u> west Samaj	(1) <i>Gram</i> road repair in front of O <i>bari</i> (Tk. 1,500), (2) Bamboo bridge (Tk. 3,500) Total Tk. 5,000
L <u>Gram</u> north east Samaj	(1) Bamboo-made bridge repair (Tk. 1,500), (2) <i>Gram</i> road repair high school -> H <i>bari</i> (Tk. 1,200), (3) Union road repair H <i>Bari</i> -> J <i>Bari</i> (Tk. 7,500) Total Tk. 10,200
L <u>Gram</u> north west Samaj	(1) <i>Gram</i> road repair Z <i>Bari</i> -> M <i>Bari</i> (12,000 Tk), M <i>Bari</i> -> <i>Madrasa</i> (Tk. 3,000), in front of high school (Tk. 6,000) and <i>Madrasa</i> -> high school road repair (Tk. 3,000, Tk. 900 [3 culverts]), (2) High school ground repair (Tk. 60,000), (3) <i>Madrasa</i> ground repair (Tk. 6,000), (4) <i>Gram bazaar</i> repair (Tk. 15,000) Total Tk. 105,900

But, as there is no fund in Union *Parishad*, the repairing work is nearly subsidised by allocated fund from Thana. Currently, Test Relief (TR) fund also takes care of small scale infrastructure works. In 1994-1995, 103 Ton of wheat worth approximately Tk. 620,000 was allocated to Faridganj Thana which was redistributed to every Union. Subidpur east Union got 7.5 Ton of wheat (worth Tk. 45,000) Table 7 shows the small scale infrastructures urgently needed by the villagers which are either repair or construction work in the project villages. Only three out of 12 villages, in Subidpur east Union, Tk. 216,700 is necessary. Tk. 45,000 is far from enough to meet necessary expenses in the whole Union. This meager allotment deficit of funds for infrastructure works is one of the major reasons for which the

much needed necessary works have been left out. Sometimes Union Chairman manages to undertake such works from his personal fund.

Another major reason for which the urgent and necessary works could not be completed is due to management loss. As shown in Table 6, the allocation of TR was used for repair of road and school ground. But, according to our observation, repair of road has not been properly carried out. This is because of the following reasons. (1) TR fund is allocated from Thana to Union on the basis of population. Union does not have to submit works plan to Thana. After TR fund reaches to Union, Union Chairman and Members discuss behind closed doors how to use the fund for small scale infrastructure works. Information on TR fund, the amount, proposed for site works, when the fund is disbursed, etc. is vaguely discussed with villagers. (2) After the work is completed TE or PIO comes from Thana to the Union to inspect it. As Thana officers don't know the circumstance of the Union, they can't exactly examine the repair works. Under this condition, TR fund is used for the site at which repair or construction work is not really needed⁵⁾, because Union Chairman and Union Members usually try to misappropriate the fund. (3) Villagers usually learn this later but there is no person to strongly accuse them for this manipulation because villagers know that the Union Chairman and Members get meager salary from the government and they do hard job for settling villager's disputes and problems in the area in Union *Bichar* court.

3.2 Assumed Linkage Model

3.2.1 Union

We established a linkage model, in which the following agencies and points were essential. 1) Union Development Committee (UDC) was newly established in the Union which was composed of Union Chairman and *Gram* delegates (Union Members) and Union level field officers of all national line departments. Figure 4 shows governmental officers stationed below Thana level. 2) field visit schedules of Union level officers were decided in Union coordination meeting held at least once in a month, and was put up on notice boards. The visit schedule of Union level officers is shown in Table 8. 3) Union Development Programme (UDP) was planned at Union level, and some key clue programmes and small scale infrastructure programme were included. 4) the information of Thana was communicated

monthly to Union and villages by BRDB inspectors, through which villagers could get information on Thana administration. Notice boards were set up in every *Samaj* and Union *Parishads* and informations sent from Thana was fixed on it.

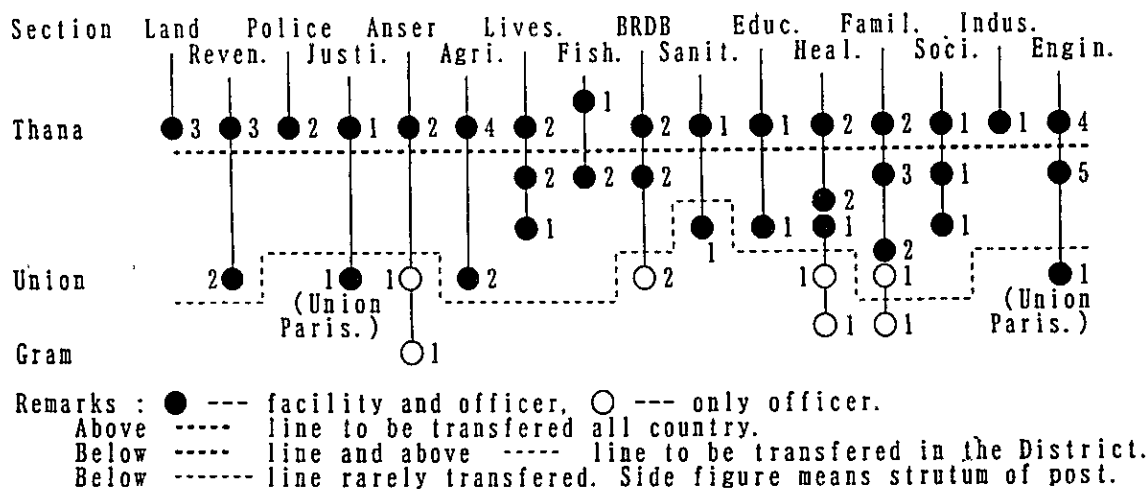


Figure 4 Government Officials Stationed below Thana Level

Relating to key clue programme, the question was that who made the plan and implement it and which institution bore the expenses. There probably were two ways to do it, one by the Thana line department and another by UDC. In this experiment, we tried the latter way. UDC made the plan and implemented it after discussion with Union level field officers. The expense was born by the UDC. Key clue programme included time-consuming process, initially identifying key questions, then discuss these how to resolve it with concerned villagers and officers. Thana is physically and psychologically located so far from the villagers that under the current administrative system Union level officers frequently travel between Thana and Union. It takes fairly a long time until the plan is approved by Thana line department, and sometimes the office is late in the payment of the expences for implementing the programme. If Union is more subsidised by the government, key clue programme could be more smoothly and effectively planned and implemented. In our experiment under this hypothesis, implementation of key clue programme was given to UDP.

Because of the limit of the time and budget, we took only three *Grams*, Fanishair (F *Gram*), Telishair (T *Gram*) and Lakshmipur (L *Gram*) as the project area.

The village delegates of UDC were nominated from these three *Grams*. We expected to see how the UDC would make plans and implement it. It included the process to coordinate the interests of villagers of three *Grams* and to form the consensus.

Table 8 : Visiting Schedule of Union Level Officers

Designation of officers	Before linkage	After linkage
Block Supervisor	He decided visiting plan himself and mainly commuted only two <i>Grams</i> even in dry season.	F <i>Gram</i> -- first Sunday L <i>Gram</i> north east <i>Samaj</i> -- second Sunday L <i>Gram</i> north west <i>Samaj</i> -- third Sunday T <i>Gram</i> west and east <i>Samaj</i> -- fourth Sunday He visits and stay at a contact point.
Livestock Field Assistant	There were no visiting plan. He went to field when villager demanded his service.	He makes a monthly visiting plan to every demonstration <i>Bari</i> in five <i>Samajs</i> in three <i>Grams</i> . He gives his services including vaccination for poultry.
Health Union Assistant	He has his original visiting plan based on his assigned task, EPI programme, etc. but never informed it to the villagers.	His visiting plan on his original assignment was informed to villagers by easier notices. Moreover, he makes a monthly visiting plan to three <i>Grams</i> for implementing "delivery of some frequently used medicines" programme.
Family Planning Officer	He has his original visiting plan based on his assigned task. But never informed it to villagers.	His visiting plan on his original assignment was informed to villagers by earlier notices.
Fishery Field Assistant	Because there is only one field officer in a <i>Thana</i> , he can not make any field visit plan in the project Union.	He goes to the project Union on the due day on the basis of the UDPs concern to fishery.
Remarks: F <i>Gram</i> -- Fanishair <i>Gram</i> , L <i>Gram</i> -- Lakshmipur <i>Gram</i> , T <i>Gram</i> -- Telishair <i>Gram</i>		

UDP was experimented twice, in the first period (from February, 1995 to June, 1995) and second period (from July, 1995 to November, 1995). The blueprint of the key clue programme was mainly drawn by discussion between Union level Officers and Union Secretary who was newly posted. Then, it was proposed at Union Coordination Meeting. Small scale

infrastructure programme was proposed by village representative including Union Member at the meeting. All preliminary plans proposed at the Union Coordination Meeting were adjusted later because the total budget for UDP was limited. Union Secretary served as important coordinator to adjust the budget plan.

Table 9 : Union Development Programme

The First Period (Feb., 1995 -- June, 1995)		Budget	Class.
a)	Introducing and diffusing commercial vegetable and fruit on highlands	Tk. 6,462	Key clue
		Tk. 1,750	
b)	Introducing HYV poultry	Tk. 1,744	Key clue
c)	Delivery of Thana information	Tk. 923	Inform.
d)	Delivery of some frequently used medicines	Tk. 6,476	Key clue
e)	Supply fish fry	Tk. 0	Key clue
f)	Technical support to Thana Fishery Assistant for pisciculture programme in 175.1 polder acres	Tk. 5,000	Key clue
g)	Road repairing	Tk.22,355	Infrast.
	< Total >		
The Second Period (July, 1995 -- November, 1995)		Budget	Class.
a)	Introducing HYV poultry	Tk. 4,300	Key clue
b)	Delivery of Thana information	Tk. 330	Infra.
c)	Road repairing	Tk. 5,000	Infrast.
d)	Construction of bamboo bridges	Tk. 3,800	Infrast.
e)	Tree plantation	Tk.15,000	Key clue
f)	Poultry development training	Tk.17,743	Key clue
g)	Technical support of Thana fishery assistant for pisciculture programme in 175.1 acres polder	Tk. 0	Key clue
	< Total >	Tk.46,173	
Remarks : "Key clue" means key clue programme. "Infrast." means infrastructure programme. "Inform." means information delivery programme.			

3.2.2 Union Development Programme

UDP is composed of three programme components, such as, key clue small scale infrastructure programmes and information delivery. UDP of the first and second periods are shown in Table 9.

3.2.2.1 Small Scale Infrastructure (Road Repairing and Construction of Bamboo Bridges)

In the Union Coordination Meeting held in March, two sites, in T *Gram* and L *Grams*, were proposed for repairing road. Both sites were located on *Gram* road, but the part of road about 3 m in length were detached by water way in rainy season. The village deligates of the two *Grams* proposed to fill up this part of the road with earth and to lay a culvert under the road. The Union Secretary estimated the total construction cost and how much of the total cost were to be borne by the villagers of two *Grams*. After the discussion in the Union coordination meeting, L *Gram* was selected as repairing site. In cooperation with some influential persons of L *Gram* north west *Samaj*, this earth work was smoothly completed. The UDP allocated Tk. 5,000 for the road construction and the rest Tk. 975 was born by the villagers.

In the Union Coordination Meeting held in July, an Union Member of L *gram* proposed to construct four new bamboo-made bridges and to repair one bamboo bridge. Out of five bridges, two are 12 feet wide bridges on which rickshaw and motorcycle can pass and others were single bamboo bridge, *Shako*. At the same time, the Union member proposed to repair the *Gram* road at two places. At both places, some years ago parts of road were damaged in the rainy season. The Union member estimated the total construction cost as Tk. 15,000. But, the Union Secretary did not agree to it due to the shortage of the fund of UDP. Then, the Union Member and Secretary discussed this with the villagers about their benefit from those constructions. Thirty six bamboos worth Tk. 2,150 were donated by the villagers of four *Baris*. As a result the construction cost born by the UDC got reduced to Tk. 5,670.

3.2.2.2 Fish Fry Supply

For enhancing pisciculture in the Union, fish fry were reared and were supplied at a cheap rate to the villagers. As fish fry rearing programme have already been implemented twice in 1993 and 1994, villagers knew its benefits. The plan was drawn up and implemented with the technical support of Thana Fishery Assistant. Three lakhs spawns of 1 inch length were released in the two nursery ponds. The members of Fish Fry Committee took charge of the implementation of the programme. When the fish fry grew up to a length of about 3 to 4 inches 9750 were caught and sold to 11 villagers. About 31,000 fish fries were sold to pisciculture of 175.1 acres under the polder programme. This programme made a significant contribution to the diffusion of fish cultivation in this area.

3.2.2.3 Introducing High Productive Poultry (HPP)

Union Secretary and LFA discussed the blueprint of the programme and was approved by the UDC members. Initially, demonstration farms were set up at a selected *Bari* in each *Samaj*. The LFA went round the demonstration *Baris* to inoculate the poultry birds as a preventive measure. HPP poultry birds were supplied to the demonstration *Baris* at half of the marketing price. While working for this UDP, the LFA gave his official service to the villagers. He inoculated cattle, hens, and ducks. The demonstration farms showed positive effects. Many villagers approached the UDC to have the HPP poultry at half of the market price. In the first phase LFA inoculated 140 cattle and 472 hens and ducks through cyclic visits, and in the second phase 51 cattle, 674 hens and ducks were inoculated. There was such a belief among villagers that at the initial stage inoculated hens and ducks produce less eggs. However, at the end of the first phase most of the villagers surely recognized the effectiveness of LFA's services through this special programme.

3.2.2.4 Introducing and Diffusing Commercial Vegetable and Fruit

Villagers, Union Secretary and BS discussed how commercial spices and vegetable (ginger and *Kackrol*) and fruit (papaya), which were seldom seen in this area, were introduced and diffused for production on highland. This issue was also pointed out as one of the key

questions in JSARD project. The plan was (1) demonstration plot would be set up at each *Samaj*, and (2) BS would write a manual of growing these vegetables and fruit which would be distributed to farmers. (3) The BS would give technical advice of growing vegetables, spice and fruit to farmers in at the site of demonstration plots. (4) The UDC would supply seedlings of these plants at a reasonable rate. BS made a plan to go to each demonstration plot, which was orally informed at the Union coordination meeting and was put up later on the notice board. Demonstration plot of each *Samaj* became a contact point between farmers and the BS.

Out of five *Samajs*, demonstration plots were set up in four *Samajs*. In two *Samajs*, the site of demonstration plot was selected through VDC meeting or through a dialogue between UDC member and farmer. In other two *Samajs*, however, it seemed that villagers were not so much interested in this programme that the site of demonstration plot could not easily be decided although about half of production cost was supposed to be born by UDC⁹). The BS and Union Secretary prepared a manual of growing papaya, *Kakrol* and ginger and fifty copies were distributed to the farmers of each *Samaj*. Farmers showed keen interest particularly in papaya cultivation. UDC bought seedlings of papaya at the cost of four Taka and sold these to applicants at the half rate. Twenty-five farmers of the three *Grams* bought a total of 643 seedlings. The BS went to farmers, who bought papaya seedling, to instruct him how to cultivate it. The essential point was that most of the farmers came to identify and know the service of BS and due to which the BS surely increased his popularity in this area through this key clue programme. We observed that many farmers went to BS to seek technical advice in the project villages.

3.2.3 Union Secretary

In this experiment, the role of Union Secretary was so important to handle the following tasks.

- (1) Union Secretary and Union level field officers cooperatively made the preliminary plan of the key clue programme.
- (2) Union secretary went to the proposed repairing sites of small scale infrastructures for estimating repairing cost and for discussing necessary fund's availability with the

village delegates and other influential villagers.

(3) Union Secretary adjusted the budget plan of UDP.

(4) Union secretary wrote the agenda of the Union coordination meeting.

3.2.4 Thana

3.2.4.1 Thana Coordination Meeting

There are sixteen Unions in Faridganj Thana. We assumed that UDP should be examined in Thana. Because, (a) It may be better that the subsidy given from the government to the Union through Thana treasury. Thana will share its accountability in the UDP. The budget for UDP is allotted to Union after approval by Thana. (b) Under the existing administrative condition, the number of field officers, who are directly involved in key clue programmes of UDC are limited. Coordination is needed concerning human resource allocation. (c) If key clue programme can be planned with matching funds between Thana-line departments and the UDC, for which some coordination is required. (d) Progress report of the UDP, which is submitted to Thana, is an effective measure to supervise the field work of Union level officers.

In the existing Thana coordination meeting all Thana level officers and Union Chairman to used take part for this purpose. In the meeting held on 28 March, the UDP in the first period (Feb., 1995 -- June, 1995) was proposed by TRDO and was approved by all Thana level officials including TNO. In the monthly Thana Coordination Meeting held from April to July, 1995, the monthly progress report was read out by TRDO and was approved by all Thana Level Officers. The final report and settlement of accounts were approved by the members present in the meeting held in July. The second period (July, 1995 -- Nov., 1995) followed the same procedure as the first period.

3.2.4.2 BRDB as Coordination Agency

BRDB was involved in coordinating agency in Thana and Union. Thana Rural Development Officer (TRDO) and Rural Development Inspector (RDI) worked for coordinator of Thana and Union levels, respectively. Thana Assitant Rural Development Officer (TARDO) presided at

the Union coordination meeting and worked as a link-man between TRDO and RDI.

RDI played an important role in delivering Thana information to the villages. "Thana Information Programme" was started in January, 1994. Since its introduction it became a component of UDP. In every month RDI collected information of every national line departments, service, training, loan, tender, etc. The copies of the information handed over from RDI to Union Secretary were posted on all notice boards. In this way, the villagers came to know about the availability of services and supplies delivered from Thana line departments. RDI got involved in the UDP from its planning stage. The preliminary plan and budget plan approved by the UDC members was submitted to TRDO and TNO. With the approval of these, it was proposed at Thana coordination meeting. RDI was also assigned to write monthly progress report on every component of UDP which was to be submitted to TRDO.

3.3 Union Development Plan

3.3.1 Key Clue Programmes⁸⁾

Although every UDP is of course practised after the consideration of its feasibility at the Union coordination meeting, it seemed that the interest of UDC members were different in the varieties of programmes. Programmes, which UDP members showed keen interests, were "road construction", "construction of bamboo bridges" and "fish rearing programme in 175.1 acres polder". In other programmes, the idea of the programmes were rather proposed by the JSRDE personnel, and much time were not given to discuss about these uninterested programmes for the UDC members in Union Coordination Meetings. If the government provided more subsidy for the UDP, most of the subsidy would be used up for infrastructure-oriented programmes and not for the other key clue programmes. So, we concluded that it probably was better that the key clue programme were initiated by each national line department by using their funds.

In this case, Thana officer will act for JSRDE personnel to identify specific problems in the area and in drawing some key clue programmes. Here, there are some major problems concerning Thana Officers. Firstly, because Thana Officers are usually transferred every three years, therefore he can not acquire sufficient much idea about the socio-economical and

ecological problem of the area as a result it is difficult for him to identify specific problems of the area. Rural development includes trial and error process, and the experiences thus gained from experiments should be accumulated to handle specific problem in the area. Thana Office of every line department faces such situation. But, under current administrative system, three years are not enough to understand the problems and conditions of the area and when he gains some experience he is transferred to other area. Secondly, he just works according to the instruction or guidance given by the District Office, and there is a little opportunity he can make an original programme on the basis of key question in the area. Thirdly, he is trained just to smoothly execute the order given by the superior agency and not trained to identify by himself the specific programme of the area well and make some programmes which promote villager's necessity and needs.

When these problems are settled, the feasibility of key clue programme could than be considered. But, as it may involve drastic change of current administrative system in Bangladesh, say introducing local public service system, it is beyond the JSRDE project. But, we can insist the following things through the experiment. Firstly, the coordination in UDC and in village is necessary to make a plan and execute it. Secondly, the mechanism for introducing and diffusing a technology should be reconsidered. The detail is shown in Chapter 5 about the case of introducing and diffusing some pisciculture programmes:

3.3.2 Infrastructure Programmes

What is the difference between on site experiment and the present condition could be summarized in the following way.

(1) In our experiment, proposed site was decided in the open discussion with Union Chairman, Members (village delegates) and Union level officers. So, the most specific spots were proposed as repairing site. Attendance of Union level officers in the meeting blocked decision making behind closed doors. (2) In our experiment, information on small scale infrastructure programme, proposed budget, real cost and progress of the work were announced in the Union Coordination Meeting, then the proceeding was displayed on the notice board. Availability of information to the public plays an important role to diminish

misappropriation of public money. It is better that information on infrastructure works is delivered from Thana to Union by the hand of appointed officer, such as BRDB Inspector, and is put up on the notice board. The minutes of Thana Coordination Meeting is suitable for such information resource. (3) In our experiment, the repairing expenses was born from both the funds of the UDC and villagers. As we could make use of matching fund⁹⁾ for the works, villager's attention and interest were increased. The approved infrastructure works was *Gram* road repair and bamboo-made bridge construction in *L Gram*. After all, we could prove that small scale infrastructure programmes are effectively exercised under the control of the UDC with the subsidy supposed to be directly given from the government.

In addition to these findings, it is also important point that Union Chairman and members should get a reasonable salary from the government. The problem is that in consideration of meager salary, villagers overlook their misappropriation. If Chowkidary tax is not allotted for the salary of Union Chairman and Members but for the part of revenue for small scale infrastructure work, matching fund will be created with TR fund and villagers would pay more attention to the proper use of their tax. After the completion of the above mentioned mechanism, the amount of TR could be increased to cope with the large necessity for the small scale infrastructure works.

3.3.3 Union Development Plan

Summarizing the above mentioned findings, we can draw the blueprint of the Union Development Plan (UDP). UDP includes the following components (Table 10).

(1) The coordination between Union level field officers and village delegates (Union members), in which the visiting days of the field officers to contact points are decided and informed to villagers. (2) Key clue programme, which is outlined at Thana line department, is then drawn in detail by Union level officers and UDC members. (3) Related to medium scale infrastructure works, not only site selection but detail design is drawn by UDC in cooperation with Thana Engineer. (4) Small scale infrastructure works which are financed by the matching funds between TR budget, villager's subscription and chowkidary tax. Besides these four components, information delivery is important both to maximize the efficiency of

service delivery and to minimize the misappropriation by Union Chairman and Members. It is better that an appointed officer like BRDB Inspector brings Thana information to Union, and he takes responsibility to post these to the notice boards. The minutes of both Thana Coordination Meetings are the last to be attached to the notice boards.

Table 10 : Components of Union Development Plan

-
- (a) Adjustment on visiting schedule of Union level officers -- visiting days and contact points
 - (b) Key clue programmes -- outlined at Thana Office, detail plan is drawn up at Union
 - (c) Medium scale infrastructures -- proposed site and design (ADP, FFW, LGED, GEP)
 - (d) Small scale infrastructures -- proposed site and design (TR)
-

3.3.4 Structure of Union Development Committee (UDC)

The members of UDC are Union Chairman, Union Member who are elected from each *Gram* by direct poll, Union level field officers, Union Secretary and Union Inspector of BRDB (Figure 5). Union Secretary and Union Inspector of BRDB act as coordinators in Union. In our experiment, Union Secretary was busy with making the preliminary plan of the key clue programmes in cooperation with Union level field officers. If Thana Officers take responsibility for making the original plan of key clue programmes in every Union, someone in the Union helps Union level officers in the stage of making detail plans and exercising it. Because sometimes village delegates don't show much interest in key clue programme. It is better Union Secretary act as coordinator for linking Unions and villages including the coordination of key clue programme. On the other hand, BRDB Inspector plays an important role as the coordinator for linking Thana and Union, including information delivery. In our experiment, the minutes of Union coordination meeting written by Union Secretary is attached on the notice board. But, it is better BRDB Inspector takes charge of information delivery including writing minutes of Union Coordination Meeting. Taking into the characteristics of two coordinators in the Union, the Union Secretary and BRDB Inspector possess higher educational back ground they and one employed as governmental officers through competitive examinations.

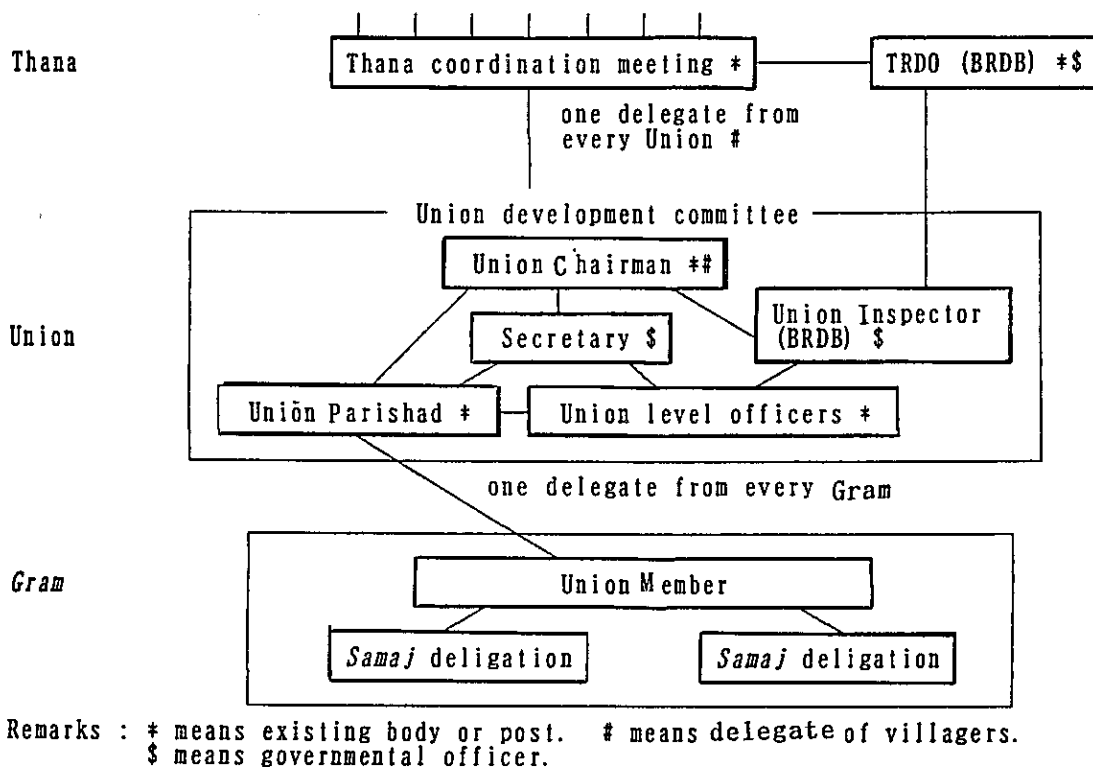


Figure 5 Structure of Assumed Linkage Model

4 Farming Technology -- Key Clue Programme --

4.1 Description of Technologies

Agricultural development has generally been 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 conventionalizing process of these alien technologies. In our experiments, we tried to analyze the conventionalizing process of innovative and alien technology by means of actually adopting the process through some field experiments. We believe that if we consider the agricultural development at village level, we try to look well into the conventionalizing process of alien and innovative technologies and to search for the way making use of the conventionalizing process into agricultural extension programme of local administration. Innovative technologies

cover all aspects of agriculture, rice, vegetables, fish, fruits and poultry. In this field experiment, special emphasis are given to fish culture. Because we 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 a village (70 to 80 per cent) of the project area are lowlands or marshes. In spite of these favourable condition for pisciculture, the area in which pisciculture is actually undertaken is less than 10 percent of total village area.

4.2 Pisciculture Programmes

4.2.1 Rice cum Fish Culture in Small Polder

The savings cooperative was involved in preparing the plan and to operate the programme. JSRDE field staff and trained persons of the cooperative were responsible to implement the programme. The society selected two polders on contract basis. The area of the two polders were 1.85 and 1.50 acres. The managing committee of the cooperative was responsible to take care of the programme. Four thousand fish fry, 6-8 cm long, were released in each polder. In the polder (1.85 acres)¹⁰⁾, the fish fry grew to a maximum length of about 30 cm. The fish fry that grew 15 cm and above were harvested and sold to traders, while those which grew less than that were caught and released to other ponds operated by the cooperative. The production cost was Tk. 5,115 in total (fish fry 2,845, labor cost 510, harvesting 1,060, drainage 700). Initial investment cost was Tk. 1,240 (earth filling 440, culvert 800), while ground rent was Tk. 2,000 Gross income was Tk. 21,904 and net income amounted to Tk. 14,704¹¹⁾. The profit was taken by the cooperative. Landowners of these two polders who only observed the pisciculture in the year 1993, got motivated to fish culture, and cultivated fish by themselves in these polders in the following years.

It seemed that the followings were the main factors under which this pisciculture experiment was comparatively made smoothly. Firstly, as these polders were composed of the lands of 1-3 *Bari's* farmers, it was relatively easy to form a mutual understanding among farmers. Secondly, the cooperative, which was a representative organization of the *Samaj* in the village, worked as coordinator to make a pisciculture plan and to implement it. Concerning the pisciculture experiment, the problems shown in Table 11 were resolved under the mediation of the cooperative. As shown in the table, the landowners of these polders didn't

necessarily favourably agree at first to this experiment. Some influential persons in the cooperative personally convinced the landowners and then finally the experiment in the first year could be carried on as per plan.

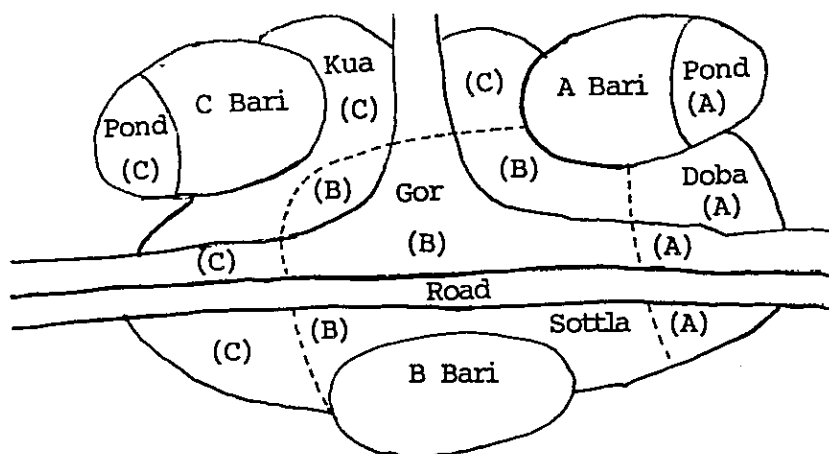
Table-11. Problems Resolved by the Savings Cooperative on the Pisciculture Experiment in 1-3 acres Rice Field

Problem occurred	Mediation by the cooperation
JSRDE recommended broadcast Aman paddy cum fish culture. But, landowners persisted transplanted Aman cum fish culture.	Other farmers also agreed to landowner's opinion. So, co-op accepted it. But, sudden flooding hindered the transplantation of T. Aman.
Co-op proposed to pay the half of net income as ground rent to landowners while landowners persisted the half of gross income.	Ground rent was decided in Tk. 2,000 in the discussion between co-op and landowners.
Landowners decided to make <i>joto</i> pisciculture in the second year. * <i>Joto</i> pisciculture is one of fish culture that those who share the ownership of a pond jointly run fish culture after their discussion.	Co-op returned the right of pisciculture to landowners on the condition of banking earth on the road which is a boundary between the experimental section and other pond run by the co-op. * Co-op means cooperative

4.2.3 Pisciculture in *Gor*

In the project area, some kinds of water holes locally called *Gor*, *Doba*, *Kua* and *Sattala* are generally seen. These marshes were artificially formed from which earth had been dug out to construct higher place, *Bari* and road. Villagers classify these water holes in accordance with its scale, shape, depth and duration of water submergence. Although it seems fish cultivation is feasible in such water holes especially in the rainy season, fish cultivation has not been found in our broad area survey conducted in the project area. This is because of the complexity of land ownership system in these dug outs. *Gor* is possessed by 5-10 *Bari*-

Members. As these dug outs extend and adjoining each others and all water holes get submerged in the rainy season. The argument were there among all landowners in these adjoining marshes were usual when pisciculture was attempted here and it was very difficult for farmers to form a mutual understanding on it. The conceptual figure of indicating the relationship between the form of these water holes and landownership is shown in Figure 6.



Remark : Inside the brackets means the owner's *bari*

Figure 6 Conceptual Figure of Marshes

In rainy season, these water bodies are covered with water hyacinth and emit a stink because of the direct inflow of sewage from adjacent *Baris*. As "pisciculture in *Gor*" was not practiced in the project area, this was considered an alien technology for the farmers of this area. In the rainy season of 1994, pisciculture experiment was made at a *Gor* of 3.48 acres in the village. This *Gor* extends from the west side rounding the south side of the village and reaching up to the centre of the village. The *Gor* is jointly possessed by the villagers of seven *Baris*, and is, precisely speaking, composed of *Gor*(1.17 acres), *Doba*(0.03 acres), *Sattala*(1.11 acres) and lowland(1.18 acres). The cooperative proposed a site, then discussed with the landowners of concerning *Baris* to lease out these to the *Gor*. Before starting pisciculture, some parts of the road, which surrounds the *Gor*, must be filled up with earth or newly constructed. After estimation the overall cost, was decided that the cooperative was to bear Tk. 5,000 out of the

overall amount of initial investment. The production cost of Tk. 16,720 was totally born by the cooperative, (fish fry 9,090, labor cost 1,950, harvesting 690, drainage 4,750, night guard 240). The initial investment cost was Tk. 38,500 (earth filling 28,670, culvert 1,850), while ground rent was Tk. 7,150. The gross income was Tk. 38,500 and the net income amounted to Tk. 12,595.

Table 12 Problems Resolved by the Savings Cooperative on the *Pisciculture Experiment in Gor*

Problems occurred	Mediation by the cooperation
Farmer, who used to buy the right of harvesting fishes in this <i>Gor</i> objected the plan.	Other landowners agreed to fish culture in the <i>Gor</i> on the condition that ground rent is to be paid by the co-operative.
A farmer objected the plan as he thought waterhyacinth, feed of cattle, would not grow in the <i>Gor</i> and small boat won't enter the <i>Gor</i> hindered by the newly constructed <i>Bari</i> road.	Construction of <i>bari</i> road was essential for improving traffic condition of two <i>Baris</i> . And the problem raised by the farmers was considered as not so serious and was dismissed.
Landowners and co-op got confused on the amount of ground rent.	The fish catches of last year was investigated and after discussion the same amount was decided to be paid to landowners.

The following points should be mentioned as significant remarks derived from the experiment. The first remark was the improvement on the landscape of the water holes which like *Gor*, *Doba* and *Kua* used to be kept under the shade of *Bari* trees, filled with waterhyacinth on the surface of the water and became the source of stink due to the inflow of sewage. As the result of the experiment, however, sewage was used for the feed of fishes and waterhyacinth was taken out to allow light and aeration to the water for pisciculture. The surface of the water of *Gor* thus became visible and the experimental site began to preserve a kind of amenity in the water front. Second remark was that repair or construction of a part of village road for pisciculture greatly contributed to the improvement of traffic condition in the *Gram*. Before this experiment, for instance, BS *Bari* and TA *Bari* were connected by a bamboo bridge, namely *Shako*. But, under this experiment, road was newly constructed between the two *Baris*,

and a culvert was constructed under the road for not interrupting the flow of water. Third remark was that the ground rent paid from the cooperative for leasing the experimental site were used to construct infrastructures in some *Baris*. Out of six *Baris* which own the *Gor*, in two *Baris*, the ground rent was distributed again to the all owners of the *Gor*. But, in BS *Bari*, TA *Bari*, TK *Bari* and MH *Bari*, the ground rent was used to repair *Bari's Masjid*, to repair the hand tubewell, to construct toilet and to construct *Ghattora*(the place to take a cold bath at pond), respectively. Fourth remark was that the cooperative played an important role in drawing plan and implementing it.

The problems shown in Table 12 were resolved through discussions made between landowners and the cooperative. This cooperative, which covered 209 households out of total 233 households in F *Gram* at that time and had a managing committee made up of the leaders of almost all *Baris* in F *Gram*, could be considered as a *Samaj*-based organization. Only a *Samaj*-based organization seemed to be able to serve as a coordinator and mediator for the pisciculture experiment such as "pisciculture in *Gor*" and "pisciculture in small polder".

4.2.5 Pisciculture in Medium Size Polder

"Pisciculture in medium size polder" was generally seen in the marshy area of Chandpur Irrigation Project (CIP). There are more or less one hundred polders which varied in area from 30 to 200 acres. After an elaborate investigation about the availability of the technology, the feasibility of transferring the technology to the project village was considered.

The proposed site for the experiment in the project village was selected which covered 175.1 acres. In fact, the villagers themselves tried to prepare such a plan in 1986 by constructing embankment using the CARE constructed Road. The experiment was initiated by the JSRDE in 1994. The project area, which was surrounded by a road constructed by CARE, was composed of lowland (160.4 acres), six ponds (4.04 acres in total), 22 *Dobas* (1.41 acres total), 22 *Gors* (2.40 acres in total), and one canal (6.50 acres). The three villages, namely F *Gram*, T *Gram* and L *Gram* were the owners of these land and water bodies. Broadcasted Aman was cultivated in rainy season in about half of the lowlands, which were frequently

affected by flood and the rest of lowlands were left as fallow. The fish fingerling produced in the nursery ponds were released in the test field on June 30 after the water depth in lowland increased. In all, 8,43,000 fish fingerlings of five species released. From the middle of October, as the water depth in lowland started gradually decreased, 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.

Table 13 : The Regulation Established by Union Fishery 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 was saved in a bank, half of the rest of the net income was to be distributed to the landowners and the rest to be distributed to the representative organizations in the *Samajs* of the three *Grams*.
- b) If the experiment fails JSRDE project would pay the amount of compensation to the 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 was a part of embankment, was to be born by the villagers.

Ground rent, etc.

- d) Estimating the gross income received from the fish catch in the previous year in every pond, *Gor*, *Kua*, *Doba*, the same amount of money would be paid to the landowners as Ground rent.
- e) Some farmers used to harvest fishes naturally grown in the canal. No compensation was 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.

The project, though could not earn any profit, had a good demonstration effect in this area. As the low land consist of 728 plots and 238 landowners, some consent on fish cultivation should be formed in the experiment. A Union Fishery Committee (UFC) was formed under the chairmanship of the Union Chairman for supervising and coordinating the project activities. UFC consisted of two delegates from each *Samaj*, and they selected a Secretary. All issues about pisciculture experiment, say how to harvest and how to sell the grown fish, were discussed in the committee meeting. UFC made regulation on pisciculture experiment (Table 13). Though late in forming the UFC, its role was found to be very necessary. The initial investment and production costs for implementing the experiment was born by external resource. The production cost was Tk. 177,099 (fish fry 124,009, labor cost 35,212, harvesting 9,036, drainage 3,042, night guard 5,800). Initial investment cost was Tk. 36,030 (earth filling 22,670, culvert 13,360), while ground rent was Tk. 212,510. Gross income was Tk. 155,204. In the first experimental year, we could not pay off even the production cost. This was mainly because of some unfavourable natural condition, technical problem and marketing problem¹².

In the second year, 1995, villagers again started the experiment by financing themselves in the form of joint share system¹³. Reflecting the last year's failure, they devised the method with the technical advice of Thana Assistant Fishery Officer. The fish catch has now become sustainable.

4.3 Demonstration Effect

In 1994 and 1995, two pisciculture technologies, "Rice cum fish cultivation in small polder" and "pisciculture in *Gor*", showed rapid diffusion in three project villages. In 1994, "Rice cum fish cultivation" and "pisciculture in *Gor*" were extended to 6 places in the three villages, and in 1995, "Rice cum fish cultivation" and "pisciculture in *Gor*" were carried out 26 and 11 places, respectively. It was not too much to say that there was no water body in the three *Grams* where pisciculture could not be carried out. In case of these two innovative technologies, only showing the experimental fields to villagers exhibited demonstration effect. These experimental fields had the following effects. (1) As we discussed how to introduce the new technology and how to cultivate fish there with landowners and village institution, almost all villagers knew the trial and error process of it. (2) Through the success of experimental

field, many villagers came to know the detail process and know-how of the newly introduced technologies. (3) In the second year, villagers carried out pisciculture by themselves in their favourable way. Alien technologies were conventionalized in the second year. We, JSRDE project supported this conventionalizing process in the village. As the result of the experiments, out of three alien technologies, "Rice cum fish cultivation in small polder" and "pisciculture in *Gor*" were judged to be conventionalized, while "pisciculture in medium size polder" were not taken up yet. The latter may take several years to be recognized that the technology got conventionalized.

4.4 Consideration

The following methods were adopted to make pisciculture experiments and to analyze it. Firstly, a broad area survey was conducted to identify local technologies which were practiced in just a part of the area. Secondly, some innovative technologies were introduced in the project villages in the form of demonstration field in cooperation with village organization and concerned governmental officer to search for the possibility to conventionalize it. Then, some technologies, which were considered to have conventionalized, were extended with the help of village organizations, UDC and concerned governmental officers. This process is illustrated in Figure 7. The introduction and diffusion of these innovative pisciculture technologies, which was categorized into key clue programme, has to be planned by Thana Fishery Office (TFO). What was the essential attitude required for Thana Fishery Officer was as follows. (1) He tried to discover innovative technologies through the field research and to look into the farming system of it. Innovative technology was not necessarily modern technology. Farming system included all aspects of the circumstances under which the technology was used, such as land holding system, farmer's decision making process on land use, financing process of production cost, etc. (2) He tried to share the conventionalizing process of the innovative technology with farmers through the experiment at demonstration field. (3) Trial and error process to conventionalize the innovative technology should be accumulated in TFO.

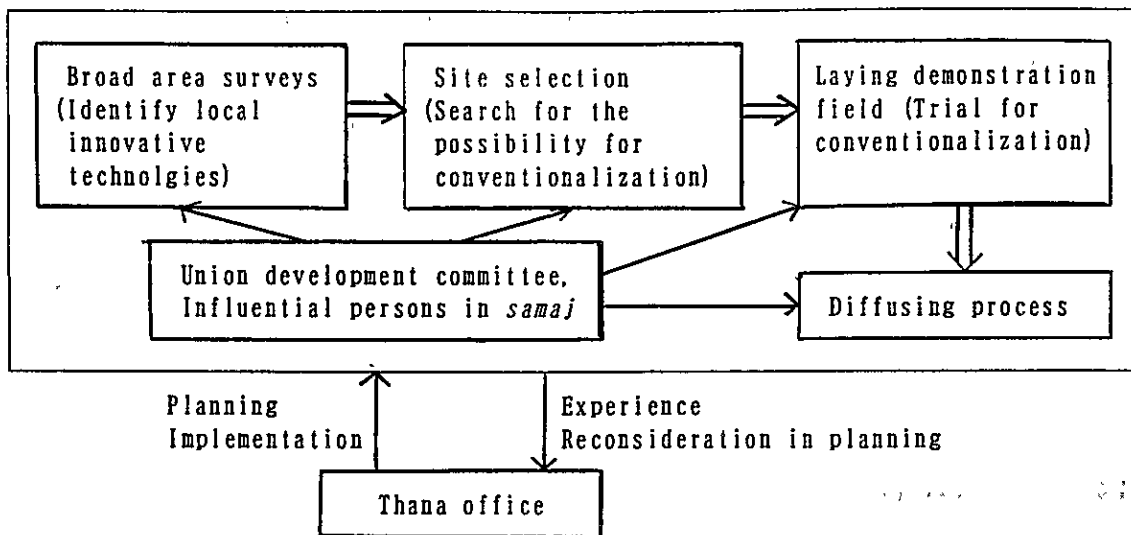


Figure 7 An Alternative Process in Introducing and Diffusing Innovative Technology

5 Conclusion

We pointed out in the last chapter that *Samaj*-based organization was needed in introducing and diffusing innovative technology. In fact influential persons in *F Gram*, who had interest in the technology, helped the JSRDE project staff to convince landowners and to settle down some disputes, but not any organization. What the important point here was any influential person outside the *Samaj* could not intervene in such works. In this sense, *Samaj* became an subsidiary and important unit for introducing and diffusing innovative technology in an village. In other words, key clue programme. Here, we summarize the above mentioned discussions as our preliminary rural development model. (1) Since *Samaj* has traditional village social structure and decision making process, any village institution, which is introduced from outside, is not needed in *Samaj*. (2) In some big *Grams*, this is an association of some *Samajs*. Any village institution is not necessary at *Gram*. Instead, one village delegate should be elected through direct poll as Union *Parishad* Member. From every *Samaj*, one delegate is selected under mutual understanding of villagers. The Union Member discusses anything about village development with the *Samaj* delegate when the occasion demands. (3) Union development plan was prepared by the Union Development Committee,

which was composed of the Union *Parishad* Members, Union level officers, Union Secretary and BRDB Inspector. Union development plan has mainly four components such as the coordination of the visiting day of Union level officers to contact point, key clue programme which is originally planned by Thana office, the plan and design of medium scale infrastructure and small scale infrastructure programme. (4) Information delivery was taken care by BRDB Inspector by means of notice board was important both to maximize the efficiency of service delivery and to minimize the misappropriation by the Union Chairman and Members.

Note :

- 1) In case of repairing small scale road in L *Gram*, which was carried out as one of Union development programme, Union member and some influential villagers in L *Gram* managed the earth from the land on the construction site. In case of small scale infrastructure programme, there the villagers may act sharply divided into two opponent groups.
- 2) At the initial stage, the function of the Union Development Committee was limited to the following two programmes. One was a Coordinator and Mediator for the fish rearing experiment in 175.1 acres polder. Another was a coordinator for delivering the service of block supervisor and livestock field assistant to the three *Grams*.
- 3) Key questions were i) stabilization of Boro HYV paddy, adoption of locally improved deep water Aman (B. Aman) and Rabi crop cultivation in lowlands, ii) intensive use of highlands with cultivation of green vegetables, cash crops such as sugarcane and fruits, iii) From the harvest of Aman until the planting of Boro, a fast growing Rabi crop such as mustard could be cultivated in most of the lowlands which remained moist till December.
- 4) In Subidpur east Union, two bridges were built in 1993 and 1994. One bridge was constructed on a small canal of 8 feet width which costed Tk. 612,000. Villagers say it was time to lay there a box culvert which was to cost only around Tk. 150,000. Another bridge was constructed on a medium scale canal of 8 feet width. The height of the bridge was too low to pass transport ships and the water way from Gorak *bazaar* and Chandpur or Hajigonj was cut off.
- 5) In 1994-95, 2 tons of wheat was planned to be used for repairing a part of Union road in T *Gram*. But, actually the part of the road was not necessary to repair, and the surface soil was slightly scratched for pretending that the repairing was completed.
- 6) Unfortunately, when the seedlings of *Kakrol* and ginger were growing well got damaged by high flooding water in early August.
- 7) These seedlings were gathered from a nursery in Basara *Gram*, neighbouring village of F and T *Gram*, farmers could easily get seedling of papaya from these nurseries.
- 8) In our experiment, some key clue programmes were made and tried out, such as

- "introducing and diffusing commercial vegetable and fruit on highlands", "multiple land use in small scale polder", "introducing HYV poultry", "poultry development training", "introduce Rice cum Fish cultivation in small polder", "pisciculture in leased ponds", "fishery training", "pisciculture in Gor", "supply of fish fry for accelerating pisciculture" and "pisciculture in medium scale polder".
- 9) The concept of "matching funds" was also advocated by Daskin Chamuria village team in the paper composed by Dr. Fujita (Koichi Fujita, 1995, Strengthening Rural Public Functions : A New Strategy for Bangladesh Rural Development, JSRDE Publication No.4, pp.25 - 38).
 - 10) Due to heavy rainfall the embankment of 1.5 acres polder was broken down making an opening for the fish fry to flow away with flooding water to the adjacent pond. The cooperative could not continue fish culture in this area.
 - 11) Net income = gross income - production cost - ground rent - (initial investment cost / 15). The durable years of embankment and culvert was considered as 15 years.
 - 12) Unfavorable natural condition included the late occurrence and recordingly shallow depth of flooding water in lowlands. One of the technical problem was that the fish fry released in the experimental field were too small, (2-3 inches in length). Approximately, less than one seventh of fish fry were survived. Marketing problem was there due to bad road condition, it was difficult to directly carry fish to big bazaar like Chandpur.
 - 13) One share was worth Tk. 500 and Tk. 300 shares were already sold out to villagers.

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D. REPORT ON DAKSHIN CHAMURIA VILLAGE

1. Introduction

One of the basic causes of weak performance of co-operatives in Bangladesh is that various constricted regulations lead to degrade the dynamism and incentive of co-operatives. This lesson suggests that such a rigid model aiming being universal is likely to degrade dynamism of rural development. Hence development model needs to be flexible. In fact, the process of rural development modeling should be considered more important than the model itself.

To attain some immediate increase in crop production, application of balanced doses of fertilizers may be effective in the short run. For long-term productivity, however, maintenance of soil fertility is essential. Likewise, for short-term rural development, target group approach may be effective, but for sustainable rural development in the long-run, there is no alternative of the development of the village community. In Bangladesh, village individuals can not survive peacefully or safely without their village community. Furthermore, the ideas and thoughts of the village people can not be changed rapidly.

Therefore, without giving careful attention to village community and community attitude, it is extremely difficult to recommend sustainable development of the individuals in the village. In the present study an attempt was made to build an alternative and effective model for rural development by utilizing an "existing thought and experiences" of the village people which they have gained over the year on different aspects in their daily life in the village community.

In this paper the findings of the study have been presented and discussed under the sections of Brief Profile of Project Village, Basic Concept of Alternative Approach, Village Community Institutions and Their Leaders, Linkage of the Village with Local Governemnt.

2. Brief Profile of Project Village

2.1 Location of the Village

Dakshin Chamuria, the project village, is located in Sahadebpur Union of Kalihati Thana in Tangail District. It lies about 12 km north of the district town of Tangail and about 3 km east



Photo 1 Union Coordination Meeting at Subidpur East Union Office



Photo 2 Fish culture in Ring Levee at Fanishair

of Dhaka-Mymensingh highway. The Kalihati Thana headquarter is 17 km north to the village, and Sahadebpur Union Parishad Office is 2 km away from the village. The Union Resources Map is shown in Figure 1 and the map of Dakshin Chamuria village is shown in Figure 2.

The village is divided into four *Paras*, those are Uttar (North) *Para*, Madhya (middle) *Para*, Purba (East) *Para*, and Dakshin (South) *Para*.

2.2 Village Population and Villager's Occupation

In the village, there are 538 households with 2,665 villagers, with the average family size of 4.9 according to the Resource Inventory Survey conducted in 1991-92. The male-female ratio suggests that there are 106 males for every 100 females in the village. The distribution of population according to the age groups is as follows:

- 40% of total population are under 14 years,
- 54% are 15-49 years, and
- only 6% are 60 years and above.

Thirty two per cent of the heads of the household (most of the heads are male) are engaged in agriculture which is the major occupation, while those who work elsewhere are shown below:

P.C. of professionals other than farming

<u>Profession</u>	<u>P.C. of total population</u>
Daily labour	31
Handloom labour	14
Businessmen	8
Service holders	5
Rickshaw/Van pullers	3

Total	61

Women are engaged in several side jobs besides their household. Their major jobs are tobacco making (making of pipes, called biri-kiri) and spinning of threads for handlooms, and women of 170 households are engaged in either of them.

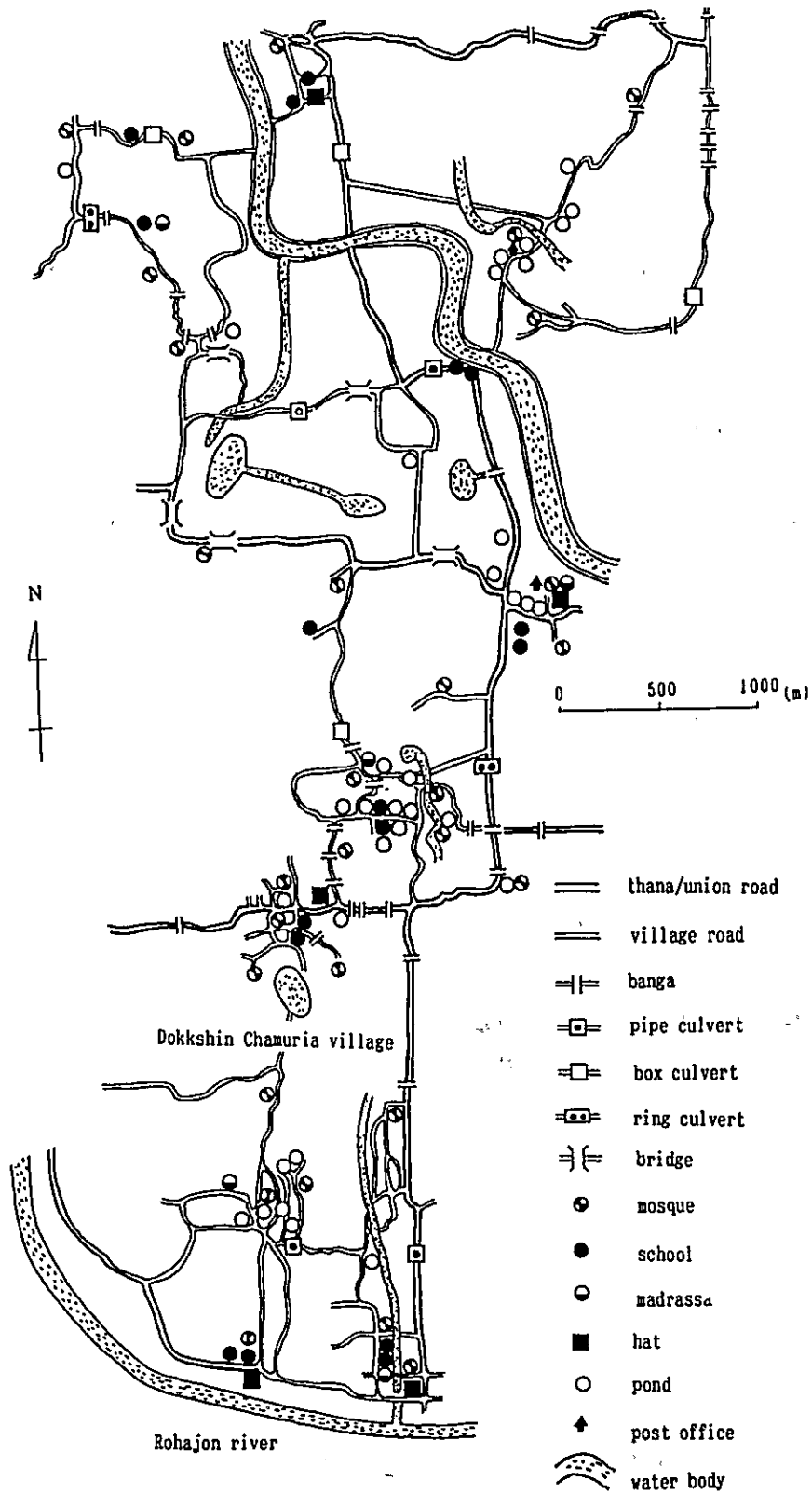


Figure 1 Shahadebpur Union Resource Map

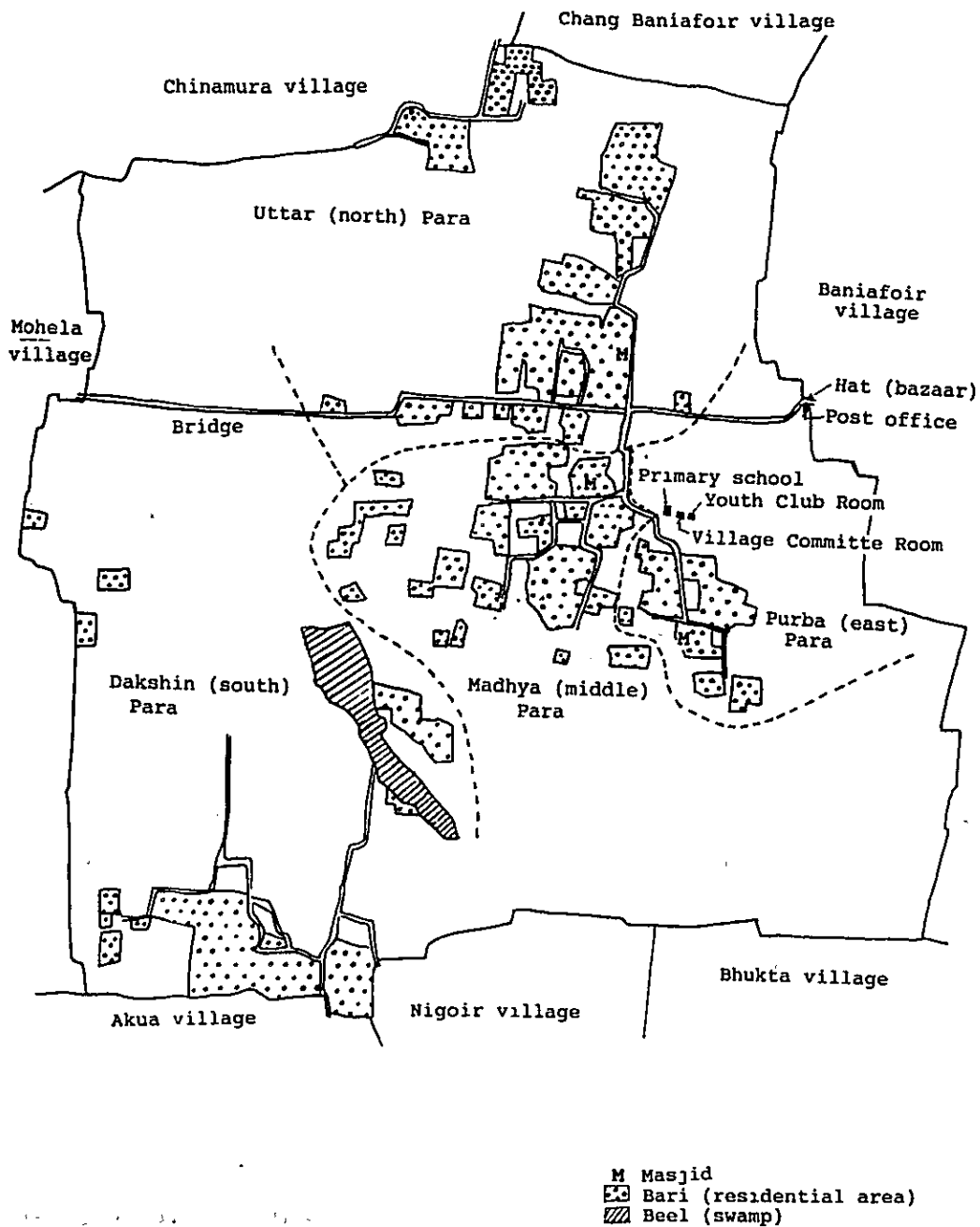


Figure 2 Map of Dakshin Chamuria Village

2.3 Landholding

Out of 538 households, 206 (38% of total households) do not own farmland, and there are only 21 households which do not have any homestead. Households that possess one hectare and above occupy 43% of the arable land although they represent only 5% of the total households. On the other hand, 8% of the households own only 0.5 hectare in spite of the fact that they belong to 64% of the total households. Therefore the land distribution pattern of the villagers are very skew in nature.

2.4 Literacy Rate

Literacy rate (5 years and above) is 42% for male and 20% for female. The literacy rate in the whole village is about 33%.

2.5 Rural Facilities and Communications

There is a primary school in Dakshin Chamuria, and villagers are interested to establish a high school in the village. The village *Hat*, is held in the *Eidgah math* (prayer field) in every Saturday which is located on the boundary between Dakshin Chamuria and Baniafoir. In the open there is a post office, a dispensary, some stalls, groceries, and tailors etc. Elenga market is situated about 5 km away from the village. This is a big market which is well connected with Tangail district town and Kalihati Thana.

During the dry season the transport and the road communication facilities connecting the village to the main road (Dhaka Mymensingh highway) is quite good. However, it gets worse because of the inundation due to the existence of *Bhanga* (inundated damaged part of the unpaved road). For bridging this *Bhanga*, every year a *Shako* (temporary simple bamboo bridge) is set up during the rainy season.

2.6 Agriculture

Local taxonomy of land is based on two major criteria. One is based on the natural topography and artificial reformation. According to this classification, land is mainly classified as follows; *Bari-Viti* (homestead compound and garden), *Palan* (land adjacent to *Bari-Viti*), *Pukur* (ponds), *Doba* (small water hole near *Bari-Viti*), *Pagar* (water hole adjacent to *Bari-Viti* where the earth for making *Bari-Viti* was dug out), *Dohō* (swamps or paddle),

Khanda (highland), *Pachot* (medium land), *Nama* (lowland), *Kachla* (bank), and *Bil* (marsh or lake). Another criterion is based on the kind of crops grown on the land such as *Dhan Khet*, where rice is grown during the rainy season; *Pat Khet*, where jute is grown during the rainy season; and *Tal*, where vegetables are grown during the dry season and usually in *Palan* or *Bari-Viti* (usually a homestead).

In rainfed farming, the existing cropping patterns are 1) Aus/Jute - LV T.Aman - Rabi crops, 2) mixed Aus and Aman/Jute - Rabi crops, 3) Deepwater Aman - Grasspea/Fallow, and 4) LV Boro - Fallow - Fallow. The Rabi crops include wheat, barley, proso millet (cheena), foxtail millet (*Kaon*), maize, mustard, groundnut, pulses, chili, sweet potato, vegetables and other spices.

Existing cropping patterns in irrigated farming are 1) MV Boro-MV Aman-Fallow, and 2) Deepwater Aman-Rabi crops (mustard/blackgram/grasspea) - MV Boro. Aus/Deepwater Aman-MV Boro pattern is also practised in some areas where long seedlings of Aus or Deepwater Aman are transplanted after harvesting of Boro.

3. Basic Concepts of Alternative Approach

In implementing action programmes in JSRDE Tangail, we principally followed several basic concepts obtained from our present experiences and observations. These alternative concepts are; viz: 1) community development; 2) income generation; 3) linking government services with villagers; 4) technological intervention and 5) proposal for improvement of rural infrastructure.

3.1 Alternative Concept for Community Development

In 1950s and 1960s, community development had much motivations. During this period, village community was planned to be reformed as an economic institution for nation building with economic consciousness and national political aim. Village leaders were expected to lead the villagers to economic development through business enterprise under the paradigm of socialism adopted in the V-AID programme. In 1960s, Comilla Model was introduced and it had changed the trend of rural development approach from community development to two tier cooperative system.

These motivations did not fit with the nature of economic motivation such as business enterprise. The success of business enterprise depends on the sense of entrepreneurship. The entrepreneurship in a sense is to seek the profitable business with strong eagerness to earn "profit" absorbing the business-risk. It can only be grown by individual interest and needs and must be under the single leadership with strong private accountability to manage the employees with passion to the economic success.

It should be noted that village community, in Bangladesh, has been maintained by plural leadership to negotiate with the villagers for the common interest based on the public ethics. This is the reason why the village community and village leaders, by their collective nature, could not let the village or villagers to enter into the business enterprise. Therefore, we think that the village community should not be encouraged to enter into economic activities.

With this view, we rethink the definition of village community. The village community should be recognized as a social institution for village development that is supported by community consciousness and people's common interest, and village leaders are expected to encourage the villagers' participation in programmes for "common interest".

Village development through village community led by local leaders must be highlighted to eliminate the evils of selfish- individualism, but complement those which have been accelerated under the recent rural development trend that aims at the individual economic success in Bangladesh. Villager's lives are comprised of not only economy but also various socio-cultural aspects. We have the prospect that "Community development" can be effective for the improvement of the socio-cultural conditions in the village with which village individual can straggle for poverty alleviation. Community development with stress on economic aspect alone should be carefully avoided.

3.2 Alternative Concept for Income Generation

Now-a-days, a number of poverty alleviation programmes mainly composed of loan and training service depending on foreign aid, are in operation. However, this loan and training approach seems to have the limitation for the poor people to use the loan effectively and the skill from the training in absence of basic requirements.

So we try to plan and implement our programmes in alternative concept for activating the poor people to go for self-reliant income generation, instead of the concept of income generation through loan and training. The alternative concept has key words of "Communication", "Infrastructure", "Government Services", "Local Government", "Security", "Tax", "Subscription" and "Rural Savings through post office".

We think good "communication" supported by rural "infrastructure" and innovative technological services delivered from line departments ("Government Services") will directly encourage the individual economic activity as well as they improve the "security" of villagers' life from disease, social quarrels etc.. Rural development programmes to improve the communication, Government services, and security will be implemented through the support of rural infrastructure and community consciousness under the local government intervention because the local government is the only institution to take such responsibility. Aid programme is not sufficient to provide the infrastructure to the rural people, in terms of expense and the participation by the rural people. For example, rural roads should be considered as a common property of the community. This consciousness can only be grown through the participation by the rural people in both aspects of planning and finance.

Taking present situation of Bangladesh into consideration, local "tax", "subscription" and the "rural savings through post office" would be the suitable devices of financial backup for construction and maintenance of infrastructure. Local tax and subscription is effective way to mobilize the resources in a community. If rural roads are constructed on the basis of the planning through the full participation by the rural people with their financial contribution, maintenance can be done by the participation of the villagers themselves on the basis of community consciousness.

The Savings fund in the post office should receive more attention by the Government as the source of budget for rural development in relation to the tax. Encouragement of individual economic activities by facilitating proper infrastructure, eventually, depends on the increase of sustainable tax collection. The benefit of savings through post office should be refunded by tax. The acceleration of the development of rural economy will surely result in the increase of saving.

3.3. Alternative Concept for Linking Government Services with villagers

At present, Government service delivery system to the villagers from Thana office is mainly maintained by the direct communication between assistants of each line department and individuals of the village leaders. As a result, the rest majority villagers have weak linkage to get their service. So we propose alternative linkage system, which we call "Link-System" that is expected to encourage general villagers to approach to field assistants and Thana offices in a voluntary manner through giving "advanced information".

The Village Coordination Meeting aims at disseminating the "advanced information" to the general villagers. This system facilitates the communication between village leaders and the assistants openly to the general villagers. Several visible procedures such as *Sangbad* (news), notice boards and *Kairanban* (circular notice) through *Bari* groups are tried to enable disseminating "advanced information" widely to the general villagers.

Our proposal of Link-System consists of four tiers institutional setting. Those are Village Coordination Meetings (VCM) and *Para* Meetings in the village; the Union Coordination Meetings at the UP (Union Parishad) office, and Thana Advisory Group Meeting at Thana office.

The *Para* Meeting consists of all members dwelling in the same *Para*. Male and female representatives, who are to attend the VCM, are selected by villagers themselves. The representatives carry back information from the VCM to the *Para* Meeting to discuss among the members.

The members of the VCM, are members of the VC, representatives of each *Para* Meeting, Government personnel working at Union, and TRDO or ARDO of BRDB, who Co-ordinates the meeting. At the meeting, schedule and achievement of each Government service agency is mainly discussed, and information collected by BRDB personnel from various sources are given to villagers, concerning occasional rural development programmes and the schedule of other line departments which do not have personnel at Union level such as fisheries, social welfare etc.

The Union Coordination Meeting (VCM) has the similar function to the VCM. Members are the UP Chairman, UP members and assistants of line departments, chaired by an UP Chairman. UP Secretary functions as the secretariat of this meeting. ARDO or TRDO of BRDB attends the meeting as a coordinator.

The members of Thana Advisory Group Meeting are occupied mainly by Thana Officers who are responsible for line department services at Thana level. The TNO (Thana Nirbahi Officer) chairs the meeting, and the TRDO and ARDO attend the meeting as coordinators. At the meeting preparation of the programme of, for example, road and bridge construction etc. are discussed and the direction of the programme is decided.

Sangbad filled with information obtained from the meeting is sent to the Village Committee by the UP *Chowkidar* under the UP Secretary's direction. Notice boards are set up, at least, in every *Para* and other public places such as *Hats* and primary schools. The information written in *Sangbad* is distributed to the general villagers through notice boards and *Para Meeting*.

Once villagers obtain the "advanced information", they can approach to concerned offices or personnel in a voluntary manner. Our Link-System is to catch the "active general villagers" who have been neglected in the present service delivery system, which have been rather for only a few village leaders. We think it is "active general villagers" that have to be highlighted in the rural development programmes conducted by the service of line departments.

3.4. Proposal for Improvement of Rural Infrastructure.

To realize the concepts of income generation and the proposed Link-System mentioned above, minimum rural infrastructure is essential. This is to be set with emphasis on the community approach and the enhancement of general Government service because the smooth communication for people's activities is the key factor for the success.

From the discussion of the action programme at Tangail site, it becomes clear that the poor road communication discourages people to attend the meetings in the village. For example, the attendants number of the VCM and Government assistants apparently decreased

significantly during the flood-season in spite of the earnest motivation from our project.

Rural roads are classified into three types: village roads, Union roads and Thana roads according to their origin and need. The Union Parishad has the responsibility to construct and repair Union roads. Local government has been putting stress on the connection of Union roads from one *Hat* to another *Hat* in the study area, but the village roads connecting one *Para* to another *Para* are disregarded. Even though villagers have Union roads of good connection, they become inactive during the flood-season due to the disconnection of village roads.

Besides roads, improvement of a set of public infrastructures are necessary. The public infrastructures means the minimum socio- economic infrastructure to support the rural life. A small *Hat* is to be developed to a village growth which functions as a economic growth cum public center in the area. This center will equip a *Hat*, a primary school, a high school, a dispensary, and a post office, which surely brings Government services for the benefit of villagers. At the Union head-quarters, banks, hospitals and Union head offices of the GOB and NGO service agencies are necessary in addition to what is required in the village growth center.

In connection with linkage, frequent negotiation between villagers and local administration is necessary for construction of rural infrastructure. For example, there is a concrete bridge of 15 m long between Dakshin Chamuria and the neighboring village at present. For construction of this bridge, JSRDE village staff, who are also members of the village contributed much in negotiation and persuasion with local administration. Without their efforts, this programme would not have been effective. We think an organization which is based on the whole village like JSRDE Tangail, is much required to support the linkage between the village and the local administration for securing effective work of linkage programme.

3.5 Concept for Alternative Technological Intervention

The experience of the Village Coordination Meeting tells that villagers are eager to get

technological advice from the Block Supervisor and the Livestock Assistant for the solution of their problems. They do not seem to be very much interested in the ready-made technological intervention from external source.

The programme of the ready-made technological intervention of the agencies is likely to discourage villagers to adapt programmes or advice because of its unsuitability to the real condition of the villagers. For example, villagers were encouraged to grow sugarcane by Agricultural Extension Services at the Village Coordination Meeting, but general villagers were not interested. This suggests the necessity of alternative technological intervention which is based on the needs of the villagers.

Alternative technological intervention should be clearly based on the specific problem of the individual farmers, while present technological intervention is top-down type ones, which do not consider the problems of individual farmers. This approach needs to undergo experiment or trial in the field, and may grow such field assistants as creative and to whom active farmers will want to approach.

4. Village Community Institution and Its Leaders

4.1 Para Road Programme: Role and Function of Community Institution through Action Programme

JSRDE institutions of Dakshin Chamuria are the Village Committee (VC) and Para Meeting for implementation of programmes in the village, and outside Dakshin Chamuria. The Para Road Programme Committee in three *Paras* in Shahadebpur Union for the implementation of *Para* Road Programme.

The village institutions have been set up for implementing the "common Interest" programmes. At Dakshin Chamuria, *Para* road repair and construction was taken as the "common interest" programme with the objectives of resource mobilization and poverty alleviation with long term perspective.

This *Para* Road Programme was originally raised by the Village Committee (VC) in July, 1993 and then the plan was discussed with importance in each *Para* Meeting. The main agendas of the meeting was the selection of the site where road is to be constructed since JSRDE offered the conditions to the villagers that the land for road construction should be donated and that each of the dwellers have to donate one day's voluntary labour or subscription equal to one day's labour wage.

Firstly, *Halots*(narrow village lanes) were repaired by raising the height (4 feet) and extended the width (12 feet), and then new road was constructed. Table 1 shows the cost of *Para* road in Dakshin Chamuria.

Table 1. The cost of *Para* road construction in Dakshin Chamuria implemented from January, 1993 - June, 1995

Length of road	JSRDE contribution (Tk.)	Villager's contribution (Tk.)	Total (Tk.)
5 km	2,58,000	10,395 (in cash) 6,010 (from 190 mandays labour)	2,58,000 10,395 6,010
Total	2,58,000	16,405	2,74,405

On the basis of the experience from the *Para* Road Programme in Dakshin Chamuria, the *Para* road programme in other three *Paras* were proposed in the UCM in March, 1994 with that conditions (i) plan was fully agreed by the *Para* people, (ii) one day voluntary labour or subscription should be given, and (iii) all taxes (including arrear) of *Para* households should be paid. In this programme, Akua Dakshin Para, Pathanda Dakshin and Madhya Para, and Baniafair Saha Para were selected. Table 2 shows the particulars of *Para* Road Programme.

Table 2. Cost incurred from different sources for constructing *Para* road in Shahadebpur Union implemented from December, 1994 - June, 1995

Name of Village	Length of the road (km)	JSRDE Contribution (Tk.)	Villagers Contribution (l)	Total cost (Tk.)	Tax 93/94 (Tk.)	Arrear (Tk.)	Total collected (Tk.)
Akua (2)	0.66	29,990	4,000	33,990	1,520	1,550	3,070
Pathanda (2)	0.72	33,910	6,000	93,910	1,549	5,589	7,13
Baniafair (2)	0.48	20,000	3,500	23,500	1,110	3,021	4,131
Total	1.86	83,900	13,500	151,400	4,179	10,160	14,339

- Note :
- (1) Contribution of voluntary labour was calculated @ Tk. 30/day.
 - (2) The programme was implemented at Dakshin Para of Akua, Dakshin and Madhya Para of Pathanda, Saha Para of Baniafair.

The *Para* Road Programme was successfully implemented by the members of VC in Dakshin Chamuria along with *Para* Road Committee which included Union *Parishad* Members in three *Paras* in Shahadevpur Union with good financial participation. JSRDE village staff supervised the programme, especially in payment of labour wages. This result illustrates that the villagers willingly can participate in the programme of common interest.

The main reasons behind the success of the programme reported by the JSRDE village staff were as follows;

- 1) The members of Dakshin Chamuria VC and *Para* Road Committees in other villages could understand this programme. The budget for this programme was fixed and announced in advance at the *Para* Meetings. Therefore the budget was properly used which usually did not happen in the work of UP.
- 2) The villagers could directly understand the benefit of *Para* roads because this programme was originally proposed by themselves.
- 3) The progress was quite visible and so they did not express their unwillingness to pay

their voluntary labour or voluntary subscription and tax.

- 4) The scheme was prepared illustrated by a map indicating the planned road, developed by the consensus of *Para* people at the meeting, and so, everybody of the *Para* knew the programme.
- 5) Household list was prepared and used for checking the voluntary labour or voluntary subscription.
- 6) The efficient leadership of *Matabbors*, who were recognized as the members of the VC and Para Road Committee was available on voluntary basis.

We were also informed of other ten *Para's* proposals for this programme in the Union. This programme also suggested that the villagers were ready to pay a Union tax if the benefit would be visible and ensured.

4.2 Gram Matabbors and Para Matabbors

In Dakshin Chamuria, usually *Matabbors* are classified into "*Para Matabbor*(*Matabbor* of *Para*, *Para Matabbor* here in after)" and "*Gramer Matabbor*(*Matabbor* of *Gram*,*Gram Matabbor* here in after)" on the basis of settlement unit. Each *Para* has plural number of *Gram Matabbors* like representatives of each *Para*. *Gram Matabbors* seem to be an entity of *Gram* consciousness of the general villagers because general villagers are linked up functionally with one another on a pivot of the leadership of *Gram Matabbors*.

Usually, villagers spend most of their time in their *Para*, and villagers of the same *Para* very often meet one another in daily life. *Para* is more familiar to villagers than *Gram*. Therefore, villagers' dwellings in the same *Para* have grown their community consciousness naturally and *Para* can be considered as a living association based on daily communication.

On the other hand, for general villagers, *Gram* is the community unit to be felt through *Gram Matabbors'* function as authority and is the administrative or community "identity" addressed

by the external people including the Government. Therefore, we may define *Para* as an entity of village community and *Gram* as authority effective in the community consciousness.

Authority of *Gram Matabbors* is not only expected by general villagers in their own village but also recognized by the neighbouring villagers. Judging from their functions as shown in Table 3, *Gram Matabbors* seem to maintain their authorities by keeping relationships with the other external authorities. This trend can also be observed in case of *Para Matabbors*.

Table 3. Functions of *Gram Matabbors* expected by the Villagers of Dakshin Chamuria.

- 1) *Bichar* or *Shalish* held by *Gram Matabbors* to solve confrontation among the villagers by using ethical logic.
- 2) General meeting namely *Gram Shova* called by *Gram Matabbors* to settle certain issues or to decide a candidate of Union Parishad Member etc.
- 3) Voluntary earth work organized by *Gram Matabbors* to project embankment of the river from flooding in cooperation with other villagers by appealing their common interest to the general villagers.
- 4) Establishment of *Hat* in cooperation with *Matabbors* of Baniafair, neighbouring Gram.
- 5) Establishment of primary school by negotiation with *matabbor* of mohela, neighbouring *Gram*, and with the Government of Bangladesh.
- 6) Union tax and relief operation; e.g. recent urea fertilizer distribution as authority for *Gram*. The union Parishad Members usually approach to *Gram Matabbors* from his side, if the programme, by its nature, cannot be closed in the private network of the Union Parishad Member.
- 7) Guidance and help to approach the external authorities; Union Parishad, NGO, bank, Government support services etc. and when the general villagers approach to the external authorities, they are given the identity of their *Gram*.

Para Matabbors are not usually identified or paid attention like *Gram Matabbors* in other *Paras*, but when *affairs* occur in a *Para* these then initially are tried to be settled at *Para Bichar* (court) held by the *Para Matabbors* including *Gram Matabbors* of concerned *Para*. It mostly happens that one or a few *Gram Matabbors* of other *Paras* are invited to *Para*

Bichar as mediators.

Matabbors of *Para* where the confrontation occurred among villagers, seem to keep themselves aloof from giving the judgment on the affair. In the absence of *Gram Matabbors* of other *Para* or *Gram*, the judgement of *Bichar* may create the strained relations between *Matabbors* and villagers in the *Para*, because they are neighbours in the same *Para*. In addition to the neighbours' feeling, third persons' judgment may be much acceptable. In *Para*, from broad sense of community consciousness, *Para Matabbors* are considered as relatives of the persons concerned even if they do not have blood relationship. At *Para Bichar*, the third persons mean the authority of *Gram* represented by *Gram Matabbors* of other *Para*. In the case of *Gram Bichar*, the third persons mean the authority of the neighboring villages. They should establish the linkage with the outside authorities to keep their authority for their community. Such talent of *Matabbors* is well demonstrated in their functions expected by the general villagers as given in Table 3.

4.3 Borrowing Authority and Community Consciousness

The pattern of exercise of authority or leadership can be considered to be displayed by "Borrowing Authority", in other words, the general villagers in *Para* need *Gram Matabbors* to unite *Para* dwellers themselves.

This pattern of authority is well illustrated in forming the committee for implementing the Union *Para* road construction programme as mentioned earlier. In three *Paras* of three *Grams* respectively, the *Gram Matabbors* who are not dwellers of the *Para* are selected as a member or chairman of the committee. Their participation was considered by the general villagers and *Matabbors* of the *Para* to encourage the *Para* people to participate in the road construction programme giving their voluntary service.

It is also usually observed that a few *Gram Matabbors* of other *Grams* are invited to *Gram Bichar* (village court) and this practice is clearly followed in *Para* Road Programme. When the programme was given to the *Para* community for implementation, we expected the members of *Para* Road Committee would be selected from *Para Matabbors*, but actually, a

few *Gram Matabbars* of other *Para* were invited as members of the *Para Road Committee* in all three pilot *Paras*. Through this experience, the system of the village community in terms of leadership becomes very clear to us. This can be called "Borrowing Authority" as shown in Figure 3.

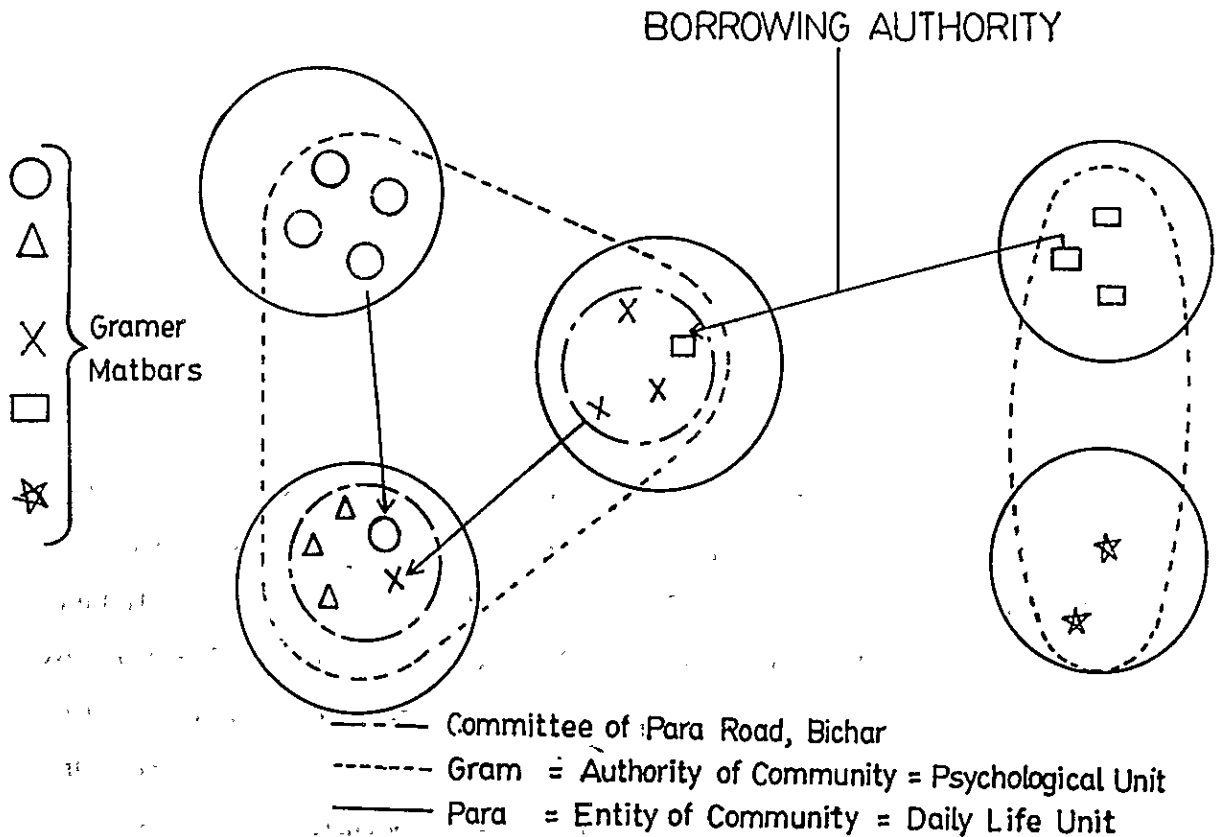


Figure 3 Borrowing Authority System in the Village Community

Villagers explain that parallel-authority of outside community is necessary to gain confidence of the community in the solution of disputes, and authority of outside community works to minimise the deterioration of the relationship among community people which might result from the decision or judgement. We consider this gesture of villagers as expression of the wisdom of Bangladesh people to avoid confrontation among the close-living neighbours or friends.

This community consciousness regarding leadership is very unique and must be carefully concerned, because this is quite different from the "common sense" on the village community consciousness in foreign countries. For instance, except for special cases, outside authority is not welcome for mediate among the community members in Japan. A hierarchic structure of leadership is easily and comprehensively accepted to Japanese.

However, in Bangladesh, as shown in Figure 3, the council of plural *Matabbors* with other communities of *Para* and *Gram* are essential for the decision making process to persuade the general villagers. "Borrowing Authority" is a necessary device to maintain the community consciousness acknowledged by *Matabbors* and the villagers.

This behaviour of "Borrowing Authority" has been giving the impression of Bangladesh village community to be elusive or dispersed, because leaders and villagers very often behave as if they ignore their community and their authority.

The VC was formed to take partly the authority of *Gram* community as a part to local administration and leadership to *Para* community, but running VC for six months after introduction, it became obvious that VC was a little far from the general villagers. To fill up the gap between VC and general villagers, *Para* Meeting was started in July, 1993 to involve general villagers into the discussion about rural development. At *Para* Meeting, villagers grouped on the basis of *Chakla* attended the meeting voluntarily and talked with one another with a free-mind. For *Para* neighbors, the VC is likely considered as super-community consciousness. The VC members are mostly composed of *Gram Matabbors*, and therefore, the VC is the authority to the general villagers in case of *Gram Bichar*.

It seems difficult for the villagers living in *Para* to participate in the programmes without "Borrowing Authority". This is well illustrated at the time of acquisition of land for *Para* road free of cost, and collection of subscription, tax and voluntary labour from villagers. So the VC under JSRDE is the institution to make the *Gram* as psychological unit more visible both to the villagers and to government field assistants, while *Para* Meeting is the forum of the people who are willing to participate in rural development programme in the village.

4.4 Limitation of BRDB Cooperatives

So far we have understood, the pattern of "Borrowing Authority" behaviour is not observed in the leadership of BRDB cooperatives, namely KSS, BSS, MSS, etc. Leaders of managing committee of the cooperative mostly solve the management problem by themselves without the intervention of the third person. This type of "community" can be called as "closed community for authority", but Bangladeshi villagers are not familiar with this type of community. They have been well utilizing "Borrowing Authority" for the community management, and this system can be called as "opened community for authority". So the institution maintained by "the closed community" may not be suited to the nature of village people of Bangladesh.

Without intervention of outside authority, "closed community" of the cooperative may allow the manager to become a "tout", because general members and even the members of managing committee can not debate with the manager due to absence of "Borrowing Authority" as an agent of mediator. The cooperative does not have "check and balance mechanism" which village community has.

Institutional system for sustainable management of rural institution from the viewpoint of "Borrowing Authority" are considered as follows;

(1) Two modes of leading bodies are more suitable for sustainable management of institution. It may consist of the Executive Committee and the Regent Board. The Board is something like the Board of Governors in the Government institutions like BARD, BRDB, RDA etc. In other words, these two are linked like the *Para Meeting* and Village Committee.

(2) Some of regent members or leading persons of other institutions should be invited on request of the general members of the institution to solve their problems in the manner of "Borrowing Authority".

5. Linkage of the Village with the Local Government

5.1 Four Tiers Institution

The aims of the linkage between villages and local governments are to realize 'common interest' and to make smooth the 'support service' delivery as shown in Figure 4. The "common interest" means mainly infrastructure development and "support service" (Government delivery service by line department) means the services of human basic needs, agricultural extension, livestock etc. based on individual interest. The JSRDE Tangail Institutions of the Linkage Programme are the four tiers; Para Meeting, Village Coordination Meeting, Union Coordination Meeting and Thana Advisory Group Meeting. However, the Thana Advisory Group meeting was held only a few times to review JSRDE activities due to the administrative problems of Thana Officers. Therefore, the experiment of linkage has been focused on the Village and Union Coordination Meeting since December, 1993. We are informed, at present meeting of the Thana Development Coordination Committee is regularly held. This committee consists of all Union Chairmen and Thana officers. Chairperson is one of UP chairmen by rotation. MP is the advisor to the committee and TNO is the Secretary. Accordingly, we can consider our aim at Thana level is realized in the other form. This institution is worth following.

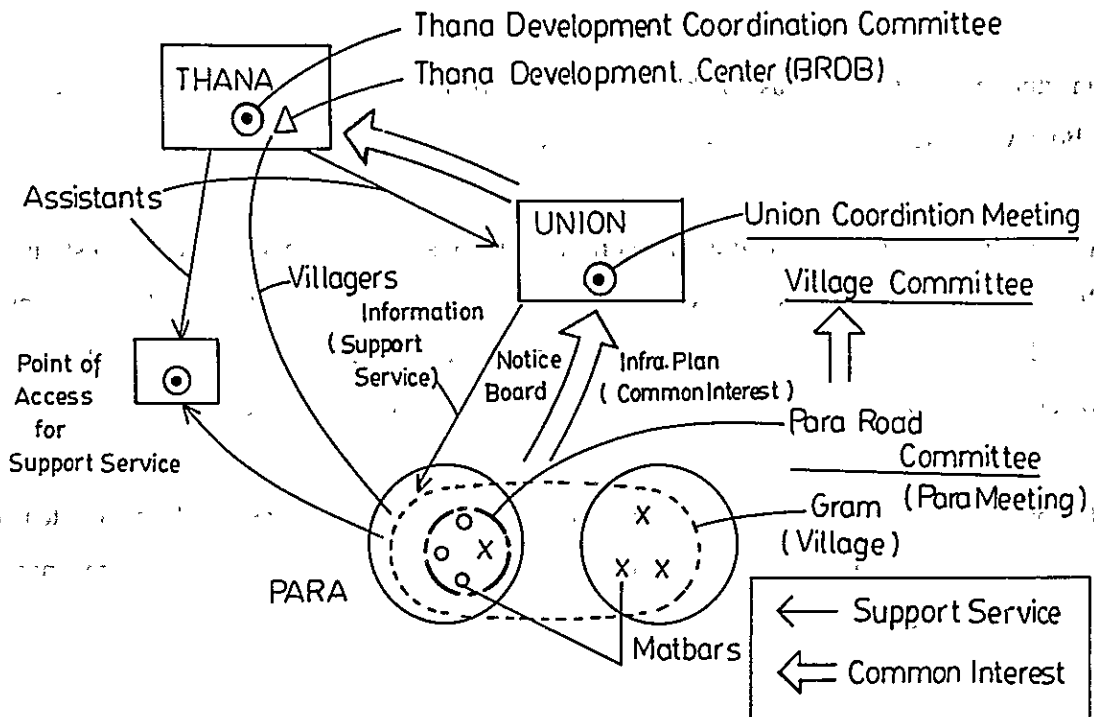


Figure 4 Linkage Model, JSRDE, Tangail

5.2 Linkage for 'Common Interest'

In relation to the linkage, the following salient points are raised through implementation of common interest programme such as *Para* road repair and construction.

For the voluntary participation of the villagers in the common interest programme, they are needed to be organized as the beneficiaries of the *para* community, because *para* is an entity of the village community. Otherwise they do not participate collectively. For example, the passive attitude of the villagers to participate in the construction of the culvert in the Union road of Dakshin Chamuria, which was observed in 1993, was somewhat due to this reason. Villagers might have considered that the benefit of the culvert was not theirs and this work should have been done by the Government, which means UP or JSRDE itself.

Our experience teaches us that the villagers should participate in the programme. This process is important to increase an awareness of the villagers that the programme is theirs. If they don't get such a feeling, even *Gram Matabbors* cannot motivate them. In the case of the culvert construction, this process was not much followed to inspire the general villagers. Only *Gram Matabbors* were aware of this programme. Therefore, we failed to get good support from the general villagers. The small amount of subscription for this programme may be cited as one of the evidences.

Another important lesson regarding procedure of the programme is that regulation to select the members of managing committee of the programme should be flexible so that the villagers can adopt their "Borrowing Authority" system.

The conditions (voluntary work, donation, tax payment, community consent on plan) for resource mobilization should, of course, be offered in the meeting attended by many *Para* people. The managing committee is needed to be carefully monitored (but not administered) by the externally authorized local acquaintance, who may also be expected by the *Para* people and *Matabbors* as one kind of borrowing authority.

Common interest programmes certainly create bottom-up stream of linkage from the village

to Union Parishad as shown in Figure 4. This linkage may activate Union Parishad. We have learnt this from the attitude of the UP members to participate in this programme. They worked significantly as a channel between the para and the Union Coordination Meeting (VCM).

TRDO or ARDO (or somebody such as JSRDE staff) in the UCM is sometime necessary as the decision maker. For example, when the discussion on the selection of the village became very complicated, ARDO and JSRDE staff by the offer of the UCM acted as a mediator as "Borrowing Authority" to UP members.

5.3 Linkage for 'Support Service'

The information of Coordination Meeting at the village and union was to be delivered by the private networks of VC and UP members and to monitor the quality of support service in terms of performance of Government assistants and felt-needs of the villagers.

Bari Groups and *Para* meeting are well recognized among the villagers in order to disseminate the information because the *Para* meeting is familiar to them although circulation of *Kairan Ban* (Circular Notice system) was not accepted to the villagers because of its cumbersome procedure. This is a variation of their network system of information delivery. According to the attendance record, about 20-30 villagers from almost every *Chakla* have attended every *Para* Meeting except *Dakshin Para*. The reason of exception of *Dakshin Para* is that *Gram Matabbors* of *Dakshin Para* did not cooperate with the VC and the JSRDE. Their attitude was against the *Para* Road Programme since early 1994 to the recent. During 1994, very few *Para* Meetings were held at *Dakshin Para*. In other *Paras*, *Para* Meeting was held nearly regularly every month.

Although the attendance rate against total household of each *Para* was less than 30 %, we were satisfied about this figure because one or a few villagers of every *Chakla* attended *Para* Meeting. If we calculate the attendance rate on the basis of *Chakla*, the figure increased upto 70-80%. It means that, at least, one representative of 70-80% *Chakla* in the *Para* attended the

meeting and got the information. They must have disseminated the information to their neighbours in *Chakla*. The *Chakla* is smaller unit than the *Para*, but in the *Para*, the *Chakla* is significant unit for the programme, especially in the context of the participation of households of the *Para*.

Besides, *Para Meeting* has another advantage in motivating the villagers and identifying the felt-needs of the villagers. The villagers, who are neighbours in the *Para*, can exchange their opinions openly. These public criticism sometimes encourage us to give an eye to the hidden corner of our programmes.

The Union Coordination Meeting performed better than the Village Coordination Meeting in terms of attendance rate and accountability of participants. At the union, the good response of UP members could be observed and the Government assistants disclosed their service delivery schedule, since their schedules were decided originally Union wise. However, some assistants like Livestock and Public Health Engineering were not scheduled to visit the village every month. Therefore, the discussion about their performance was sometime passive between VC members and the assistants in the Village Coordination Meeting.

Both the Coordination Meetings in the village and union have succeeded in changing the UP and VC members as voluntary supporters to deliver support service. The assistants very often request them to disseminate the advanced schedule in the village and to encourage the villagers to get access to the service. According to the report of the livestock assistant, the numbers of cattle vaccinated increased by 1.5-2 times, and approximate figure is now more than 100 in one day.

The *Gram Matabbors* have been involved in the monitoring work in the Union. To check the work schedule of the assistants, the names of the *Matabbor*, whom the assistant met at the *Gram* according to the visiting schedule, is recorded in their Monthly Working Report which is reported at Union Coordination Meeting. This monitoring system was devised by UP members at the meeting. Monthly Working Report is a useful simple device to supervise the work of the assistants.

The eight Notice Boards in Dakshin Chamuria and 11 in the union have come to be familiar to the local people for these three years. Notice Boards in the public places like *Hats* are significant to disseminate the information of support service.

Information delivery system of Notice Board at union level is transferable by the existing manpower of UP. The news brief of the schedule of assistants are brought by JSRDE staff to the UP secretary and the Chowkidars are assigned in putting it on Notice Board. However, in the village, JSRDE staff do this work.

The *Para Meeting* system with Notice Board was introduced to the pilot *Paras* in the Union which UP members and JSRDE village staff also attend. This programme was started since May, 1995 to extend our linkage system in the other *Gram* of the Union through UP.

5.4 Process of Institutional Linking Between the Village and the Union Parishad

As mentioned above, the *Gram* is the psychological unit for the authority of community. Thus, we have the experience that even the common interest programmes namely culvert construction in Dakshin Chamuria could not encourage the villagers' participation because of the lack of careful attention to their entity of the community consciousness. They behaved in the collective manner when the programme was offered to them within *Para*, and we started *Para meeting* to disseminate the information and explore the felt needs of the villagers. The Village Committee has come to be able to encourage the villagers to participate in the programmes after establishment of the *Para meeting*.

At the beginning, the offer of the *Para Road Programme* will be disseminated by the UP members and the Notice Board, and then, the dedicated *Para Matabbors* will contact to the UP members. The UP members will take the proposal to the Union Coordination Meeting. At this time, the committee for *Para Road Programme* automatically will be formed in the *Para*. In the first year, the programme will be conducted within this *Para*, and in the following years, the programme will be offered with the condition of the change of committee members according to the extent of the area.

In accordance with the expansion of the programme to all *Paras*, the members of the committee will be shifted to the Village Committee based on all *Paras*. Upto the final stage, the tentative *Para* Road Committee will act as a part of the Village Committee as that of Dakshin Chamuria. According to our experience, this procedure of expansion of the committee is the most applicable because of the flexibility of the authorities of the *Para*, namely "Borrowing Authority" and dual mode of the community consciousness.

We are afraid, however, that the programme could fail to satisfy all the *Para* people in the *Gram* due to the limitation of budget and man-power if the *Gram* is targeted from the beginning. It will be better for us to get hold of the dedicated people and make them our port or shelter in vast rural area.

Thus, to establish the Village Committee, it takes a few years. Otherwise, to activate the Village Committee from the beginning, a larger amount of budget is required to cover all the *Para* like Dakshin Chamuria. As shown in Tables 1 and 2, the cost performance of the programme is much bigger in Dakshin Chamuria than in other three *Paras*. So if we had started to form the Village Committee, we might need a larger fund for the programme because we might face the problem of confrontation among the *Paras* of these three villages and then, we would need to increase the budget for all the *Paras* in the villages.

In case of the linkage with support service, the *Para* is the appropriate receiving body for information and access. It has been proved from the programmes of JSRDE, E.P.I., Gramcen Bank and U.G.S.T. Their *Para* based programmes have been successfully implemented.

The most important point of linkage with support service is that the schedule of the assistants must be disseminated in time and the monitoring must be continued at the Union Coordination Meeting.

Union-*Para* institutional linkage through UP member with support of some NGO has good reality. After experiment at union in 1994/ 1995, we became confident of the potential of expansion of our model in this way.