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Report of the Workshop
on

Final Review of Joint Study on Rural Development Experiment Project

9th to 11th July, 1995

Edited by

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Executing Agencies

Bangladesh Academy for Rural Development (BARD)
Japan International Co-operation Agency (JICA)

Collaborating Agencies

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Bangladesh Agricultural University, Mymensingh
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FOREWORD

The Joint Study on Rural Development Experiment (JSRDE) Project has reached its final stage of implementation and will be completed in December, 1995. Under this project, attempts have been made to find answers to the key questions and clues that had originated from the first phase of the project implemented under the name Joint Study on Agricultural and Rural Development (JSARD) from 1986 to 1990. The first phase was actually a fact finding study directed to identify the diversity and dynamism of rural problems, their location specificity and the issues and hypotheses that surfaced from them. Under the JSRDE project, interventions have been made for the last three and a half year to address those issues, problems, questions and clues. It thus has been under implementation as an action research project.

The JSRDE project has offered gainful, productive, healthy and sincere opportunities to both Bangladesh Academy for Rural Development (BARD) and Japan International Co-operation Agency (JICA) to execute and implement the project with active Co-operation from the Japanese expert team headed by Professor Yoshihiro Kaida of Kyoto University, Kyoto, Japan, Bangladeshi expert and counterpart team from Bangladesh Academy for Rural Development (BARD), Comilla, Bangladesh Agricultural University (BAU), Mymensingh, Rural Development Academy (RDA), Bogra and Bangladesh Rural Development Board (BRDB), Dhaka. The interventions have been made in five project villages where the Japanese and national experts have been jointly taking part.

The Final Review Workshop of the Joint Study on Rural Development Experiment (JSRDE) project was held from 9th to 11th July 1995 at BARD, Comilla to examine the progress in the achievement of the objectives of the project and the applicability of the model or framework of rural development developed by this project. The papers presented in the workshop and the deliberations indicate that the project has been able to achieve its

objectives mainly in the development of a conceptual model and a framework of rural development giving considerable emphasis on horizontal and vertical linkage and co-ordination among the officers and field staff of the nation building departments, local bodies and village institutions. We expect that by the end of the project period the experts would be able to crystallize the model so that a pilot project could be undertaken as a step towards its replication.

We express our profound thanks to the participating institutions, scholars and experts who prepared the reports, participated in the deliberations and worked sincerely with dedication to develop the model. We also thank those who took considerable load to edit and bring this report in published form. We hope, the policy makers, planners, researchers, rural development practitioners and others concerned with rural development in Bangladesh and other countries will find this report useful.

(Morimasa Kanamaru)
Resident Representative
JICA, Bangladesh

(Dr. Salehuddin Ahmed)
Director General
BARD, Comilla

PREFACE

The Joint Study on Rural Development Experimont (JSRDE) project has been sponsored and administered by the Rural Development and Co-operative Divesion of the Ministry of Local Government Rural Development and Co-operatives. The project has been executed by the Bangladesh Academy for Rural Development (BARD), Comilla and the Japan International Co-operation Agency (JICA). The project is jointly implemented by both national and international insititutions. These are Kyoto University, Kyoto, Japan, Bangladesh Academy for Rural Development (BARD), Comilla, Rural Development Academy (RDA), Bogra, Bangladesh Agricultural University (BAU), Mymansingh and Bangladesh Rural Development Board (BRDB), Dhaka, The Japan International Co-operation Agency (JICA) has been providing generous financial support to implement the project and make gainful interventions to achieve the objectives of developing a structural and conceptual framework or model of rural development. This is the report of the workshop on "Final Review of JSRDE project' held from 9th to 11th July, 1995 at Bangladesh Academy for Rural Development, Comilla.

The JSRDE project has been under implementation as an action research project where experts in different disciplines of agricultural and rural development of both Bangladesh and Japan have been actively involved to achieve the objective of developing a sustainable structural and conceptual framework of rural development. The first phase of the project, namely Joint Study on Agricultural and Rural Development (JSARD) was a study project through which the problems and needs of the project villages, their magnitude and dimentions were identified. In the present project (JSRDE) interventions are made to address those problemes and issues. The second phase of the project will conclude in December, 1995. This report is thus expected to

indicate the probable structural and conceptual model of rural development so earnestly developed by the scholars of both Bangladesh and Japan on which a pilot project could be initiated.

The planning Commission, the Economic Relations Division and the Rural Development and Co-operative Division (RDCD) of the Ministry of Local Government, Rural Development and Co-operatives have been actively providing all assistance necessary to implement the project. We are thankful to all these Government departments. We also experess our thanks to those who prepared and presented the village reports and conceptual framework that emerged fram the experiment, the Bangladesh Academy for Rural Development (BARD), Comilla which provided all kinds of physical support to organize the workshop, the Project Director and the General Manager of JSRDE for extending guidance and logistic support and to all including the computer operatiors who worked hard to make the workshop a success and the report published.

The Editors

ABBREVIATIONS

ARDO	:	Assistant Rural Development officer
AI	:	Artificial Insemination
B. Aus	:	Broadcast Aus
B. Aman	:	Broadcast Aman
BARD	:	Bangladesh Academy for Rural Development
BAU	:	Bangladesh Agricultural University
BA	:	Bachelor of Arts
BRDB	:	Bangladesh Rural Development Board
BRAC	:	Bangladesh Rural Advancement Committee
BRRI	:	Bangladesh Rice Research Institute
BS	:	Block Supervisor
BSS	:	Bittahin Samabaya Samity (Assetless Co-operative Society)
CARE	:	Co-operation for American Relief to Everywhere
CIP	:	Chandpur Irrigation Project
CIPS	:	Community Information and Planning System
Cm	:	Centimeter
CVD	:	Comprehensive Village Development
CVDP	:	Comprehensive Village Development Programme
DTW	:	Deep Tube Well
EAT	:	Environment Adaptive Technology.
EPI	:	Extended Programme of Immunization
ERT	:	Environment Reformative Technology
FA	:	Fishery Assistant
FP	:	Family Planning
FPA	:	Family Planning Assistant
FR	:	Farming Research
FRC	:	Farming Research Centre
FWA	:	Family Welfare Assistant
FWC	:	Family Welfare Centre

GO	:	Government Organization
GOB	:	Government of Bangladesh
Gm	:	Gram
HA	:	Health Assistant
HSC	:	Higher Secondary Certificate
HYV	:	High Yielding Varieties
JICA	:	Japan International Co-operation Agency
JOCV	:	Japan Overseas Co-operation Volunteers
JSARD	:	Joint Study on Agricultural and Rural Development
JSRDE	:	Joint Study on Rural Development Experiment
Kg	:	Kilogram
Km	:	Kilometer
KSS	:	Krishak Samabaya Samity
KTCCA	:	Kotwali Thana Central Co-operative Association
LA	:	Livestock Assistant
LFA	:	Livestock Field Assistant
LV	:	Local Variety
LYV	:	Low Yielding Varieties
MBSS	:	Mahila Bittahin Samabya Samity (Assetless Women co-operative Society)
MC	:	Managing Committee
M/O	:	Ministry of Local Government, Rural Development and Co-operatives
MP	:	Member of Parliament
MV	:	Modern Variety
NGO	:	Non-Government Organization
NBD	:	Nation Building Departments
OJT	:	On the Job Training
PO	:	Post Office
RDA	:	Rural Development Academy
STW	:	Shallow Tube Well
SSC	:	Secondary School Certificate
T.Aman	:	Transplanted Aman

TAO	:	Thana Agriculture Officer
TCCA	:	Thana Central Co-operative
TDCC	:	Thana Development Co-ordination Committee
TFO	:	Thana Fishery Officer
TLO	:	Thana Livestock Officer
TNO	:	Thana Nirbahi Officer
TRDO	:	Thana Rural Development Officer
UCM	:	Union Co-ordination Meeting
UDC	:	Union Development Committee
UDP	:	Union Development Programme
UP	:	Union Parishad
UPCM	:	Union Parishad Coordination Meeting
UDC	:	Union Development Centre
VAID	:	Village Agricultural and Industrial Development
VC	:	Village Committee
VCM	:	Village Coordination Meeting
VFA	:	Veterinary Field Assistant

CONTENTS

1. Introduction

Rural Development is the most essential component of development strategy in Bangladesh where about four fifths of her population live in the rural areas and where agriculture is the mainstay of the economy. The rural sector is characterised by widespread poverty, unemployment, high incidence of landlessness, malnutrition and a labour surplus economy. Bangladesh also suffers from recurring natural disasters - flood, cyclone and drought - which further impede national development. A vast section of the population in the rural areas live in poverty and depivations that are sometimes dictated by social, cultural, traditional and economic constrains. Besides, scarcity of land, rapid population growth, lack of access to means of production and resources with consequent lack of opportunities for economic activities, high rate of illiteracy, lack of skills, conservative attitude and many other factors perpetuate their poverty and unemployment.

From experiences it is gathered that previous efforts and models for rural development could not address the total socio-economic problems of the vast rural population. With this background the Joint Study on Rural Development Experiment (JSRDE) Project has been in operation which was designed on the findings of an earlier project, namely the Joint Study on Agriculture and Rural Development (JSARD). In that project some key questions and key clues were identified. On the basis of those key questions and key clues the Joint Study on Rural Development Experiment (JSRDE) Project has been implemented with the general objective of pursuing intensive problem solving and action oriented experimental approach by implementing the need based programmes through community participation. Implementation of the need based activities in the sample villages are visible to produce demonstration effects in the neighbouring villages. Presently it appears that specific objective of the project i.e. to build up a framework of rural development for Bangladesh may

be possible to be recommend to the Government of the People's Republic of Bangladesh at the end of the project.

2. Objectives of the Workshop

The main objective of the workshop on Final Review of the JSRDE Project was to identify the key issues on the basis of the experimentation in the sample villages and in some cases in the neighbouring villages which are contributing to buildup a framework for rural development in Bangladesh. The specific objectives were:

i. To review the project interventions at different project sites.

ii. To identify the issues on the basis of the findings of the experimentation in the project which can be the components of framework for rural development in Bangladesh.

iii. To make suggestions/proposals for review and finalisation in the Final Seminar of the project for final recommendation to the Government in respect of a model for rural development in Bangladesh which can be replicated all over Bangladesh for addressing the fast growing trend of landlessness and assetlessness.

3. Organization of the Workshop

The Workshop was jointly sponsored by Bangladesh Academy for Rural Development (BARD), Comilla and Japan International Co-operation Agency (JICA). Mr. Haruo Noma, General Manger, JSRDE was the workshop coordinator while Mr. Md. Mazharul Islam, Specialist, Institution Building, JSRDE project was the workshop organizer and Mr. Swapan Kumar Dasgupta, Deputy Director, BARD, Comilla was the Associate workshop organizer.

4. Participants

In this workshop 24 government officials, three representatives of Embassy of Japan and JICA, five JICA experts, two JOCV members,

three representatives from Union Parishad, seven project personnels, nine village representatives and 11 project field staff attended (List of participants is enclosed in Annex - "A").

5. Duration

The duration of the Workshop was three days i.e. 9th to 11th July, 1995 which was held at Bangladesh Academy for Rural Development, Kotbari, Comilla (Programme of the Workshop is attached in Annex - "B").

6. Methodology

Five papers were prepared by the researchers/officials who are related with the project. These were distributed among the participants. Papers were presented by the concerned team members of the relevant project villages in two business sessions. There was open discussion on the papers by the participants. Moreover, 10 minutes in business sessions were allocated for the field staff and village representatives. They actively participated in the deliberations of different sessions. In three days' workshop there were four business sessions excluding the inaugural and closing sessions. One of the business sessions was earmarked for group discussion. Four groups were constituted with Task Force and Counterpart Members, Officials, JICA Expert, Project Officials (both from field and Head office) and representatives from local government institutions and representatives from the sample villages. Each group was assigned to prepare the report on one of the Basic Approaches of the project. These groups prepared report which was presented by the group leaders at the session followed by group discussion session.

7. Inaugural Session

Inaugural session of the workshop was started at 9:30 a.m. on 9th July, 1995. The session was started with Tilawat from the Holy Quran. Mr. Mizanur Rahman, Asstt. Director, BARD was the rapporteur of the session. Ms Gule Afruz Mahbub, Joint Secretary

(Dev.), Rural Development and Cooperatives Division, M/O LGRD&C was the Chief Guest who inaugurated the workshop. Dr. Salehuddin Ahmed, Director General, BARD, Kotbari, Comilla took the Chair in this session. Ms. Saleha Begum, Project Director, JSRDE Project welcomed the participants and guests and explained the objectives of the workshop presenting project brief, and activities to be completed in the different sessions. She also mentioned that issues relevant to the framework for rural development which are identified through experiments would be validated through discussion. This would be presented in the Final Seminar from where concerned recommendations about a workable model would be finalized and submitted to the Government of Bangladesh. Mr. Hironao Suzuki, Resident Representative of JICA, Bangladesh was one of the Special Guests of the session who spoke highlighting the rich heritage of Bangladesh. He also referred to the key questions and key clues identified in 1st phase - JSARD project. He also mentioned the contribution of government organizations and NGOs in the field of rural development in Bangladesh. He thanked the researchers both Bangladeshi and Japanese who have been working in the JSRDE project for the contribution about evolving a model for Rural Development in Bangladesh. Mr. Kenniche Yokoama, 1st Secretary of the Embassy of Japan in Bangladesh also attended the session as Special Guest and spoke in the session. He mentioned about the Japanese Technical assistance in the field of rural and agricultural development in South East Asian countries. He also mentioned about MRDP-1 project at Homna and Daudkandi Thanas of Comilla district which is being implemented by JICA through BRDB. He also referred to the dispatch of JOCV members in the field of rural development, agricultural extension, fisheries and other relevant fields for accelerating the development of Bangladesh. He hoped that through business sessions participants would share and exchange their experiences and views which would facilitate the project to formulate a framework for rural development in Bangladesh. Prof. Yoshihiro Kaida, Japanese Team Leader from the Kyoto University, Japan spoke in the session highlighting issues relating to the alternative approach of rural

development which would contribute to minimise gap between rural and urban people, develop an appropriate farming technology which would suit to the local environment, involvement of union parishad in the development process of Bangladesh and construction of rural infrastructure through participation of local people. This would facilitate job opportunities for asstless people of the rural areas and bring income for them. This may change the life style of them. He also mentioned about effective information dissemination and service delivery to the rural people through existing setup and mechanism of the Government of Bangladesh.

Ms. Gule Afruz Mahbub in her inaugural speech mentioned about role and contribution of BARD in the field of rural development in Bangladesh. She also appreciated the cooperation of Japan Government and JICA and other collaborating organizations of the JSRDE Project. She hoped that through this workshop project authority would be able to identify some hints of model for rural

Ms. Gule Afruz Mahbub, Joint Secretary, Rural Development and Cooperatives Division, M/o LGRD&C, is delivering speech in the inaugural Session of Final Review on the Joint Study on Rural Developmenet Experiment Project held on 9th to 11th July, 1995. Dr. Salehuddin Ahmed, Director General; BARD, Mr. Hiranao Suzuki, Resident Representative, JICA, Bangladesh and Prof. Yoshihiro Kaida, Japanese Team Leader, JSRDE project are also seen with other participants.

development in Bangladesh. She thanked Government. of Japan, JICA, JSRDE project personnel, Kyoto University, BARD, BRDB, BAU and RDA. She wished the success of the workshop and formally inaugurated the workshop. Dr. Salehuddin Ahmed, Chairperson of the session raised a few vital questions in the activities of the JSRDE Project. These are

- How the village organization of the JSRDE Project can be fitted with other existing organization in the village.
- How the soft programme of health, education, family planning and nutrition etc. could be accelerated by this effort.
- How to mobilize local resources - both human and financial and to utilize these for development of the area.
- Do the villagers own the activities being implemented by the JSRDE project.
- How the project will be sustainable after departure of the project personnel from the project villages.

After that he put some suggestions for taking into consideration by participants before preparing recommendations of the workshop. He mentioned that development of model through JSRDE Project is very difficult; rather it can suggest a framework for rural development in Bangladesh. For stopping the migration of the rural people to the urban area allocation and thrust of the Government in the rural sector should be enhanced so that this can be attractive for the rural areas. Industries should be relocated in the rural area. In this connection he quoted a Chinese dictum "Leave the land not the village, enter the factory not the city".

He put importance on the linkage of the village institution with local government administration system to establish a common thread between infrastructure, service and people's organization. After thanking the Chief Guest, Special Guest, project authority and different categories of participants he declared the session closed.

8. Business Sessions

8.1 Business Session-1

The session was chaired by Dr. S.M. Altaf Hossain, Professor, Bangladesh Agricultural University, Mymensingh.

Dr. Habibur Rahman, Associate Professor, Bangladesh Agricultural University, Mymensingh, Mr. Swapan Kumar Dasgupta, Deputy Director, Bangladesh Academy for Rural Development and Mr. Masudul Hoque Chowdhury, Deputy Director, Bangladesh Academy for Rural Development performed the responsibilities of rapporteurs.

In this session village report on Aira, Bogra was presented by Mr. Haruo Noma, General Manager, JSRDE Project who was assisted by Sheikh Sadi, field staff of Aira site. Village report on Daskhin Chamuria, Tangail was jointly presented by Dr. Kazuo Ando, Long Term JICA expert, JSRDE Project. Dr. M. Habibur Rahman, Associate Professor, BAU and Dr. Muhammad Salim, Associate Professor, BAU. Papers presented in the session on Aira and Daskhin Chamuria are given in the following pages.

Experiences of Action Research in Aira Village, Bogra

Haruo Noma
Md. Feroz Hossain

1. Introduction

1.1 What is Level Barind

Barind Tract is in the boom of "Green Revolution". The reddish Barind soil in the dry season, which remain fallow or under sparse cattle grazing, are all covered with green winter rice now. During the hat day the highway around the *hat*(periodical market) is quite congested with farmers from the Barind villages, their bullock carts carrying paddy, traders and their trucks are busy of loading the paddy.Besides, innumerable steam boilers for parboiling are being installed in the rural growth centers and considerable number of people including women are residing around them seeking job opportunities in the paddy processing and other day labourers.

What kind of pictures of the Barind Tract for the future can we draw in the horizon of this ubiquitous rapidly commercializing rice cultivation ? In search of an answer to this question we have implemented an action research project in Aira, a typical village in the Barind Tract of Northern Bangladesh.

The village Aira is located in Mirzapur Union of Sherpur Thana under Bogra district. It is 7 km southwest from Sherpur and 27 km to the south of Bogra town. From Sherpur to Aira it takes about one and a half hour on foot and 40 minutes by rickshaw in the dry season, but in the rainy season muddy and slippery earth road makes the communication very difficult by any means of transportation(Figure-1).

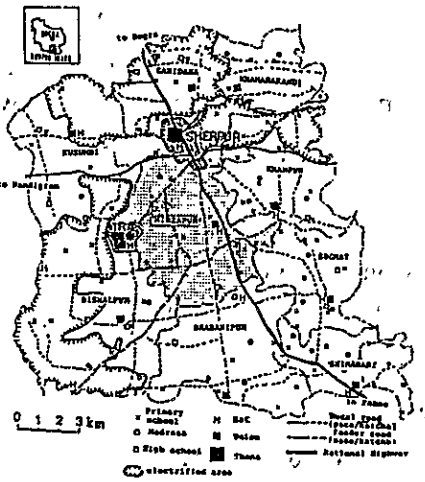


Figure-1. Sherpur Thana and Its Infrastructure.

The typical landscape of Level Barind, originally being Pleistocene Terrace, is as follows: there is little difference in elevation between paddy fields and the homestead; consequently, the field is never flooded during the rainy season. The soil fertility is relatively poor due to the low organic matter content (less than 1%). Rice farming is the only enterprise from the early times of the village Aira. Livestock like cattle, goat, sheep, poultry, duck are relatively minor sources of income for villagers.

Single rice crop (aman) and subsistence peasant farming had been dominant in the rainy season under above environmental condition before 1960s. But such a situation abruptly changed just after liberation by the introduction of small scale irrigation (STWs,DTWs) with a succession of famine. As a result the dry season rice production was widely grown and cropping intensity dramatically rose to more than 200%.

1.2 Basic Strategy for Action Programme

The basic consideration taken at the start of the action research are as below:

1. Uplift the standard of living and vitalize the people of the

poorest class including landless agricultural day labourers, immigrants from other villages and neglected rural women.

2. Institution building for effectively streamlining economic activities in the very conservative and backward project village.

3. From the very beginning of the project it follwed an 'out-reach approach' to minimize the influence of the presence of JSRDE.

4. All decision and actual implementation will be made by the Village Committee (VC) of the villagers own, and JSRDE's role or function is limited to giving them advice and some technical and financial assistance.

2. Village Profile

2.1 Land and Landholding Pattern

The total area of Aira *mouza* is 493 acres, out of which 292 acres are owned by Aira villagers and rest 201 acres by the adjacent

Mr. Haruo Noma, General Manager, JSRDE project is presenting village report on Aira in the Workshop on Final Review of the JSRDE project held at BARD, Comilla from 9th to 11the July, 1995.

villagers. It may be mentioned here that only 63(29%) households occupied 262 acres of land out of 292 acres.

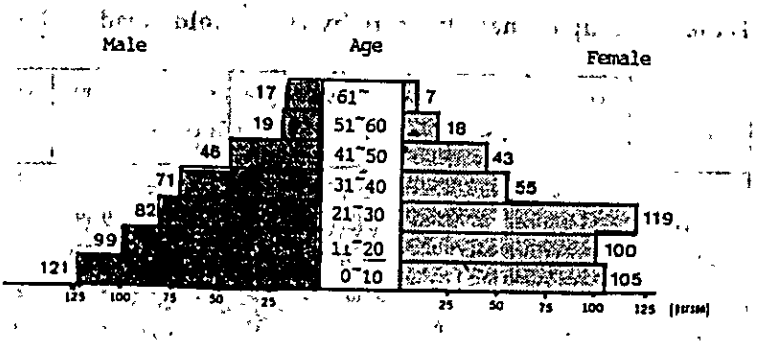
Table-1. Landholding in Aira (1995)

Landholding Class (acre)	No. of Household (%)	Landholding (acre)	Average Land/ household (acre)
0	34 (49)	-	-
0.01-0.49	98 (16)	12.9	0.13
0.50-0.99	20 (7)	15.3	0.76
1.00-2.49	29 (12)	49.2	1.59
2.50-9.99	15 (8)	54.2	3.61
Total	215 (100)	291.3	1.35

Source : JSRDE Census Survey 1992

2.2 Population and Occupational Structure

The population distribution of Aira by age and sex in 1995 census survey is shown in the Figure-2.



Source : JSRDE Census Survey, 1995

Figure-2 Population Pyramid of Aira Village (1995)

The total number of population is 902 where the group with high fertility rate is quite large. 25% of the total population are below

10 years old and 7% above 51 years old. Both are not expected as potential work force. The rest 68% constitue the economic work force almost of which are contributing directly or indirectly to rice production and processing due to the extension of HYV *boro* cultivation accompanied by STW & DTW irrigation system.

Rapid increase of households decreased man/land ratio. It led to the drastic increase of agricultural labourers. It also seemed that the other two important factors exist: one is the trend of nuclear family; the other is population increase, mainly by immigrants from the Jamuna eroded fooldplain in search for job opportunities and shelter.

Most of the household heads (HH) are basically engaged in agriculture the breakup being 65(30%) households in agriculture, and 85(40%) as day labourers mainly agricultural labour. Business includes self-employed jobs such as shop-keeping, rickshaw- and van-pulling and STW owner,etc. Services of upper classes are teacher, officials who commutes to town(s), on the other hand those of lower classes are engaged mainly in petty business, bamboo-work and begging. 'No work' category includes aged men and women.

Table-2. Occupational Structure by Household Head (1995)

Landholding (acre)	Agriculture (%)	Day labour (%)	Business (%)	Service (%)	Others (%)	No work (%)	Total HH (%)
0	21 (62)	2 (6)	- (0)	6 (17)	5 (15)	-	34 (16)
0.01-0.49	15 (15)	57 (58)	8 (8)	- (0)	9 (9)	9 (9)	98 (46)
0.50-0.99	5 (25)	6 (30)	2 (10)	1 (5)	2 (10)	4 (20)	20 (9)
1.00-2.49	20 (69)	1 (3)	3 (10)	2 (7)	3 (10)	- (0)	29 (13)
2.50-4.99	10 (67)	- (0)	- (0)	5 (33)	- (0)	- (0)	15 (7)
5.00-	15 (79)	- (0)	1 (5)	3 (16)	- (0)	- (0)	19 (9)
Total (%)	65 (30)	85 (40)	18 (8)	11 (5)	20 (9)	18 (8)	215 (10)

2.3 Education and Family Planning

The literacy level of Aira is very low. Based on the bench-mark survey of 1992, literacy rate was 23%. Recent survey [1] (1995) shows 28%, which was still less than national average(35%). The main reasons are that no mass educational institution exists in the village and villagers' conservative attitude. Therefore, children go to school nearby village Uchrong about 4km distance from Aira. Under this circumastances, a BRAC (influential NGO) school has started to operate by the initiative of VC in July 1993, which is not enough to cover the village. Besides a Dhakhil *Madrasa*(Islamic School) is under construction by the donation of villagers and their relatives. VC expects that the *madrasa* will start from January 1996 irrespective of budget shortage. We may, therefore, reasonably conclude that primary education is a common interest for almost all villagers.

Though villagers are aware of family planning, the services from the relevant departments are negligible. There are 174 eligible couples of whom 138 are currently practising family planning. Out of these eligible couples, 8 have adopted permanent methods, namely tubectomy 5 and vasectomy 3.

3. Village Institution

3.1. Characteristics of Village Committee

In Aira, homestead groups *(bari)* are not well recognized like floodplain villages, because there are no clear physical boundaries such as raised ground of homesteads. Nevertheless, the boundary of a *para*, a kind of hamlet is obvious. There are seven *paras* in the village: North *para*(N), East *para*(E), Kazlai *para*(K), Middle *para*(M), Dhigi *para*(D), South *para*(S) and Shatain *para*(SH). Kazlai *para* and Shatain *para* are Hindu paras, the rest five *paras* are Muslim *paras*. The residential segregation between the two groups is still rigid. Particularly Shatain *para* is quite isolated from the rest.

Note. Education Level. BA:Bachelor of Art(graduate level); HSC:Higher Secondary Certificate(Class XII); SSC:Secondary School Certificate(Class X); Kamel:Islamic School title, equivalent to Master title; Cl:Class

Patrilineal groups, *gustis*, are the most dominant social groups. In Aira 25 *gustis* are identified. The number of houses per *gusti* varies from 1 to 17, but its average is 5.5. Almost one *gusti* group resides within one or two *paras*. Out of five dominant Muslim *gustis*, three occupy Middle *para*, the others occupy North and Dhigi *para* respectively (Figure-3).

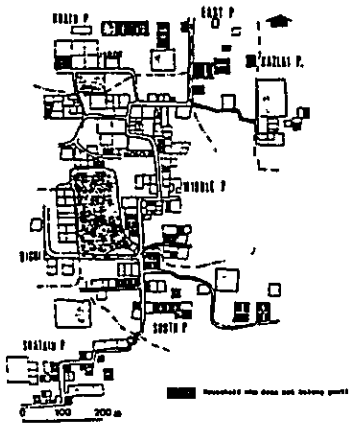


Figure-3. Non-*gusti* Household

Table-3. Non-*gusti* Households Migration from/to Aira

In-migration (1992-93)

Area	Total No.	%	*Para*-wise No.						
			N	E	K	M	D	S	SH
Bogra District	45	57							
Sherpur Thana	37	45	9	2	2	12		4	8
Dhunat Thana	6	7	1					2	
Sadar Thana	4	5				3		1	
Sirajgonj District	31	37							
Kajipur Thana	20	24		3		3		13	1
Other Thanas	11	13	1	1				2	7
Kurigram District	2	2	1			1			
Unknown	3	4		1		1		1	
Total	83	100	12	7	2	20	0	23	19

Out-migration (1992-95)

Area	Total No	%	*Para*-wise No.						
			N	E	K	M	D	S	SH
India	3	30							3
Bogra District	1	10				1			
Sirajganj District	3	30		1				1	1
Rangpur District	2	20				2			
Unknown	1	10						1	
Total	10	100	0	1	0	3	0	2	4

Note : *Para* abbreviations are shown in the first para of 3.1

Recently non-gusti members are increasing in number year by year. They are mostly immigrants from other villages. Table-3 indicates the distribution of former villages where non-*gusti* members lived. Very interesting feature is that more than 45% immigrants come from flood-prone area, such as Kazipur Thana (Sirajganj), Dhunat Thana (Bogra)etc. The main reason is loss of land by Jumuna river erosion. They cannot help but occupy vacant space in the periphery of the settlement, that is, mainly around Middle *para* or North *para* (Figure-4).

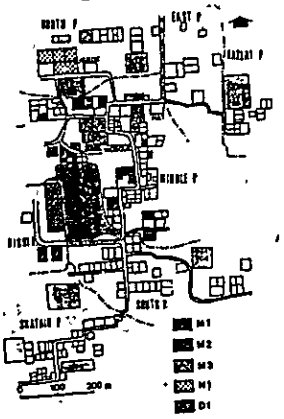


Figure-4. Dominant *Gusti*

In November 1992, VC was formed in Aira to organize the villagers' self-help activities for rural development. The committee was meant to work as the main body for decision making and implementation of rural development activities.

Table-4 Characteristics of Male Village Leaders

No.	Age.	Education	*Gusti*	Landholding (acre)	Occuption	Village Committee
1	58	BA	N1	6.00	High school Headmaster	Chairman
2	41	Kamel	M3	5.00	Moulana (Muslim leader)	Vice-Chairman
3	63	SSC	N1	8 00	Agriculture	Member
4	36	HSC	D1	0.55	Agri, Village Doctor	Secretary
5	38	SSC	K1	8.00	Agriculture	Member
6	38	BA	N1	1.00	Primary school teacher	Member
7	48	SSC	M2	5.00	Agriculture	Member
8	68	-	S1	6.35	Agriculture	Member
9	52	Cl. XI	M4	2.00	Agriculture	Member
10	53	SSC	M1	7.00	Agriculture	Member
11	41	HSC	D1	0.16	Agriculture	Member
12	38	Cl. X	M1	8.00	Agriculture	Member
13	50	Cl. V	D1	12.00	Agriculture	Member
14	50	-	M5	6.00	Agriculture	Member
15	39	Cl. III	M2	0.00	Fishery	Member (died)
16	68	Cl. VIII	H1	1.16	Agriculture (labourer)	Member
17	32	Cl. IX	M1	3.00	Agriculture	-
18	45	Cl. V	D1	5.00	Agriculture	-
19	35	Cl. X	M5	1.00	Agriculture	-
20	60	Cl. IV	H1	4.00	Agriculture	-
21	35	-	H1	0.02	Agriculture	-
22	42	HSC	K5	2.00	Agriculture	-

The VC is not a formal institution with formal membership system. Therefore, it is regarded that committee members would act as the representatives of all the villagers. In this connection the VC have no capital formation and credit operation at that moment. At the initial stage, the villagers were given an idea about an institutional structure of village. In such a situation it was expected that an experimental village institution would be formed representing all the villagers who belong to different socio-economic strata/classes. The VC is an autonomous body and not operationally controlled by the project. The VC is comprised of 19 members including four female members, who are all selected by the villagers. These female members do not attend meetings with their male counterparts but they hold separate meetings. The decisions of the meetings are communicated to the male members and endorsed for further discussion and action at the VC. Any other villagers other than VC members can attend the meetings and have right to speak out.

Table-4 shows the list of village leaders. Almost all VC members are so-called traditional village leaders, *matabbor*, who fall in at least two categories in the following five; (a) comparatively big land holder, (b) educated, (c) religious person, (d)belonging to dominant *gusti* and (e) eloquent. The chairman of VC is the high school Headmaster of the adjacent village.

3.2 Performance of the VC

The committee members used to hold regular meetings on every alternate Friday afternoon. Now the date has been changed to Sunday. Sixty-four meetings were held till June 1995. Table-5 indicates the results of monitorring the VC meetings. The attendance of the VC members in their meetings is 8.9 persons per meeting among 15 members. In addition, average attendance of non-VC members is 12.1 per meeting. Therefore, number of attendants in a meeting is on an average 20 including both VC and general villagers. About one Chairman, one Secretary and other two members are opinion leaders. In contrast, the other five members were not influential and rarely spoke in the meeting.

Recently the VC has started loan distribution from their own income * to develop their fund. In September 1995, VC distributed

* Noto: This income is generated from the sale process of domestic animal, like calves, sheep, chickan and duck which are distributed as loan.

15,000 Taka among 17 persons, with 5% interest/month for six months in order to subsidise on-farm and off-farm activities (eg. small shop business).

Additionally the VC planning to buy rickshaws and rickshaw-vans in order to give loan to poor people who are interested, using refund of the VC's loan.

Table-5 Members' Attendance in VC Meeting

Sl.No.	Designation	*Gusti*	VC members attendance		VC members talked	
			No.	%	No.	%
1	Chairman	N1	57	89	57	100
2	Vice-Chairman	M3	36	56	32	89
3	Member	N1	50	78	35	70
4	Secretary	D1	44	69	38	86
5	Member	H1	16	25	9	56
6	Member	K1	26	41	6	23
7	Member	N1	38	59	15	39
8	Member	M2	49	77	38	78
9	Member	S1	21	33	6	29
10	Member	M4	40	63	14	35
11	Member	M1	39	61	26	67
12	Member	D1	53	83	29	55
13	Member	D1	16	25	3	19
14	Member	M1	36	56	14	39
15	Member	M2	12*	55	3	25
16	Member	D1	35*	81	28	70
(15+16)	Member		47	73	31	70

	VC members attendance		VC members talked	
	No.	%	No.	%
Total No. of attendance	60	94	26	43
Other than VC members (1)	568	8.9	352	5.5
VC (Aberage No./ Meeting) (2)	775	12.1	46	0.7
VC + Non VC (1)+(2)	1343	20.9	398	6.2

Source. Minutes of VC meeting from the 1st to 64th meeting.
Note. No.16 replaced because of No.15's death in 1994.
No.15's term is 1st to 21st, No.16's term is from 22nd to till date.

Lessons we learnt from the VC organization can be summarized as below:

1) Setting up of the VC was not a difficult task and the membership of the VC was more or less evenly distributed among *gustis*.

2) Topics discussed encompass two areas; one is of more community concern and the other is of rather private or economic concern. The topics on their community include electrification, repair and construction of roads, instalation of sanitary latrine, setting up a BRAC school, establishment of post office, purchase of a sports-ground of *madrasa*, establishment of a *hat*, utilization of Union tax for village development works and construction of community room etc.

   Issues of more or less economic concern include income generating activities, eg, livestock improvement, kitchen garden, vegetable production, tree plantation, poultry, duck rearing, calf rearing, sheep and goat rearing, pisciculture, nursery establishment, improvement of existing wild trees, banana and mango orchards, etc. for the poor households.

3) VC's decision was taken after consulting all the attendants on the day, but it was observed that VC members' consensus was always essential.

4) Income generating activities were always of keen concern to poor villagers. VC has so far distributed such opportunities, though very limited in cases and quantity, to those poor villagers in a fair manner.

5) Women's meeting was not active and it has now been suspended. The reasons are that they are not accustomed to hold meetings and neither are they convinced of the outcome from their intended activities as they were not exposed to outside world due to religious and social restrictions.

6) The involvement of the VC in religious arena is a touchy issue. But it was found that the VC successfully administered the purchase of *madrasa* sports-ground by donations in cash and in kind (land donation) from all classes of villagers including Hindu, and Muslim patrons outside Aira.

The VC is trying to strengthen the linkage among the village, Union and Thana for various support and services from the Nation Building Departments(NBD).Representatives of the VC visited related relevant departments, Union, Thana and district level shown in Table-6.

Table-6 Performance of Villages' Contact with Thana, Union, NGO and Others

Sl. No	Month .Year	No	Purpose	Place visited	Achievement
1.	1/94	2	Village road repairing	Union Parishad	Not accepted
2.	1/94	1	Village road repairing	Union Parishad	Accepted
3.	4/94	2	Cock exchange	Thana Livestock Office (Sherpur)	Cock is not available
4.	8/94	2	Poultry vaccination	Thana Livestock Office	Done
5.	8/94	1	Road repairing	Road and Highway Office (Sherpur)	Considered
6.	1/95	4	Electrification, road construction	Member of Parliament*	Accepted
7.	2/95	3	Construct the room of VC	Pourashaba Chairman, Sherpur	Brick price discount
8.	3/95	2	Hand tubewell distribution (free)	Union Parishad	Accepted
9.	3/95	1	Buy fertilizer for *boro*	Union Parishad	Failed
10.	3/95	1	Buy fertilizer for *boro*	Union Parishad	Done
11.	3/95	1	Buy fertilizer for *boro*	Union Parishad	Done
12.	3/95	1	Buy fertilizer for *boro*	Union Parishad	Done
13.	3/95	2	Electrification	Rural Electrification Board (Bogra)	Accepted (priority)
14.	4/95	3	Electrification	Rural Electrification Board (Bogra)	Accepted (priority)
15.	5/95	9	Electrification, road construction	State Minister of Finance*	Accepted

Note. * : They met at Sherpur.

3.3 Improvement of Hygiene and Sanitary Condition

Hygiene and sanitary condition in Aira was quite discouraging. To improve this situation, VC took initiative to create awareness among the villagers, especially to prevent communicable diseases like dysentery, diarrhoea, skin diseases, etc. Only 31% households have *kaccha* latrines according to our survey. Besides, about safe drinking water, almost all households are using water either from own or public tube-well. Considering the utmost need, the villagers made link with the Department of Public Health Engineering for constructing the rings and slabs for water sealed latrines in their own yard. Thirty seven sets were made in Aira and were distributed among the interested households during May, 1995. The price of the rings and slabs amounting to Tk. 10,000.00 will be recovered by 8 instalments as revolving fund.

4. Environmentally Sustainable Farming Technologies

4.1 Sustainable Cropping Pattern

For improving the cropping systems in the village the project has tested the following two kinds of new patterns:

(a) Green manure (*dhaincha*) -Transplanted-*Aman* rice (MV) - *Boro* rice (MV)

(b) Pulse (chickpea) -Transplanted-*Aus* rice -Transplanted-*Aman* rice (LV).

These cropping patterns have been designed to improve soil fertility as well as to increase crop productivity. The beneficial effect of *dhaincha* as green manure had been proved for a long time but due attention was not given to popularize it as green manure. These cropping patterns were also meant to utilize rainfall more efficiently and thus reducing groundwater extraction by STWs. The former pattern brought higher yield by 16% and higher gross return (29,795 Taka/ha) than that of the prevailing cropping patterns. The net return was 22,740 Taka/ha and cost-benefit ratio was found to be 1:4.22. The latter new cropping pattern was

designed for rainfed farming with only supplementary irrigation so that it could reduce irrigation cost. Consequently farmers' net profit became 1:5 times more than before.

An assetless village woman of Aira village, Bogra is seen with a bunch of spinach in her hand in a kitchen garden developed by herself at the advice of counterpart member of the JSRDE project.

These new trials challenge the prevailing cropping systems in the Barind Tract. The prevailing cropping pattern has been vulnerable to unusual climate and fluctuating rice price. On the contrary, traditional cropping system in the floodplain was complicated, environment-adaptive, and sustainable so that risks were averted and minimized though the yield was relatively small as compared with modern systems. Our ambitious trial is to reassess the advantage of the indigenous floodplain farming technologies in the Barind Tract. It also aims at improving daily food habit of the Barind villagers.

4.2 Kitchen Gardening

There is comparatively large unutilized homestead land (*baribita*) amounting to 9.15 decimal per household on an average in Aira in 1992, of which 95% remain unused.

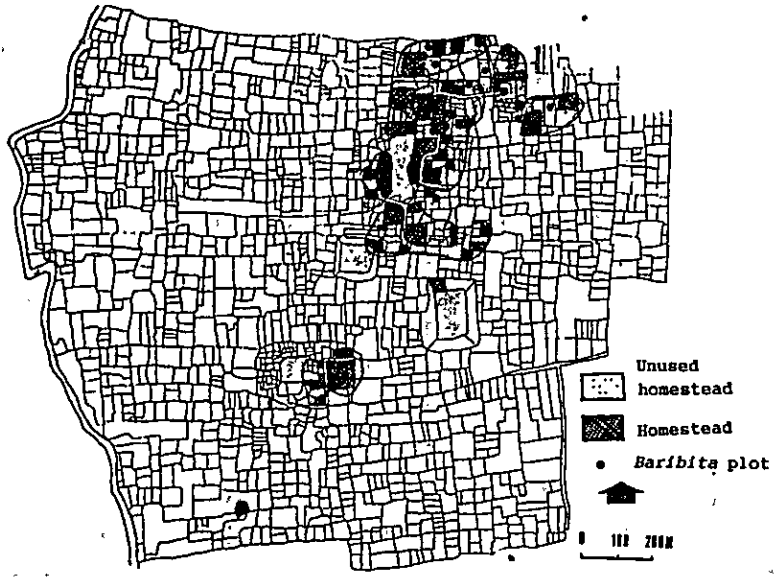


Figure-5. Homestead and Baribita Programme

On the other hand, there is no fallow land left to allow vegetable cultivation in the main culturable lands as they are all occupied by rice throughout the year. Moreover, clayey soil of Level Barind is not suitable for growing vegetable because of poor drainage in the rainy season and of scarce soil moisture available in the dry season. Consequently, villagers of Barind Track suffer from shortage of vegetable intake all the year round. In this connection, a kitchen garden programme in underutilized homestead was implemented as a means of providing nutritional balance to the villagers and of supplementing additional income for landless poor families.

To utilize the homestead areas profitably seven demonstration plots were established during *kharif* and *rabi* seasons in 1993-94. Six kinds of vegetables were chosen in each plot in consultation with respective participating women, eg:

a) lalshak, brinjal, okra, data, Indian spinach and yard-long bean.
b) radish, spinach, cabbage, carrot, tomato, cauliflower.

A plot was divided into six rows to plant the above vegetables. Each plot was taken care of by the respective beneficiaries. An

appropriate quantity of manure and cow-dung were dressed and mixed well with top soil at the time of land preparation and some additional organic manure were added to maintain proper physical properties soil and its fertility.

No pesticide was used. Indigenous and local vegetable strains were adopted as they are relatively pest resistant. Multiple and mixed cropping was applied to partially avert pest outbreak. Related data including yield, the amount of the vegetables consumed at home, distributed to neighbours as gifts, and sold were recorded by the participant women with the help of our field assistants(Table-7)

Table-7. Vegetable Production, Consumption and Sale from Kitchen Garden (1993-94) by Landless Families

Sl. No.	Plot Size (dec.)	Vegeta bles production in kharif Season (Apr.Sep.) (kg)	Vegetables production in rabi Season (oct-mar) (kg)	Before project net consumed per day/ head (gm)	After project net consumed per day/ head (gm)	Total consum . ption (kg)	Total gift (kg)	Total sale (kg)	Net income (Tk)
1.	1.27	206.95	82.75	20.50	53.12	96.95	13.75	233.00	923.00
2.	1.48	128.80	153.95	22.50	61.23	89.40	17.90	175.45	574.10
3.	1.64	124.47	45.50	23.75	44.52	65.00	16.85	97.12	253.50
4.	2.05	417.25	96.00	37.50	85.85	125.35	13 00	375.75	1855.50
5.	1.15	103.81	19.25	15.00	27.89	40.72	7.57	75.07	325.48
6.	1.43	291.59	0.00	28.57	148.97	189.97	69.62	32.00	78.00
7.	1.50	221.15	79.49	24.64	70.22	101.23	23.11	164.73	668.26
Total	10.52	1494.02	476.94	172.46	491.80	708.44	101.80	1153.12	4677.84

Production in the both seasons was encouraging with twice higher yield in the *kharif* season than the *rabi* season. Net economic return was found to be about 670 Taka per year per landless family on an average. Most of the vegetables were consumed at home;

consequently vegetable intake per head per day increased from 24.6 grams to 70.2 grams, indicating significant improvement in nutritional intake, especially of vitamins and minerals.
Moreover, considerable quantity of produce was given free to neighbours and close kin.

Some problems that the kitchen gardeners faced were:

a) Lack of water for irrigation during the dry season,
b) Lack of good quality seeds at the local *hat*,
c) Limited marketability of some vegetables, and
d) Damages by poultry, goats and sheep.

A short training course to the participants by a RDA staff prior to the implementation of this programme was proved to be very useful for them to gain confidence in this undertaking and to combat the above problems. The services of Block Supervisor could also be employed for giving proper training at the initial stage in this type of programme.

The success over a period of one year encouraged others to undertake similar programmes. In the following year 16 new kitchen gardens have been started in the village, practically with no direct intervention but just as the consequences of demonstration effect.

Figure-6 shows the performance of all kitchen gardeners. Quite a significant quantity of vegetables were sold in the village, and were marketed at the newly established Aira *hat* by these participating women and her husband. Considering the conditions under which women's economic activities are strictly discouraged, these women's active participation in the vegetable marketing should be highly regarded. This was indeed a break-through in the women's role in rural development in this village.

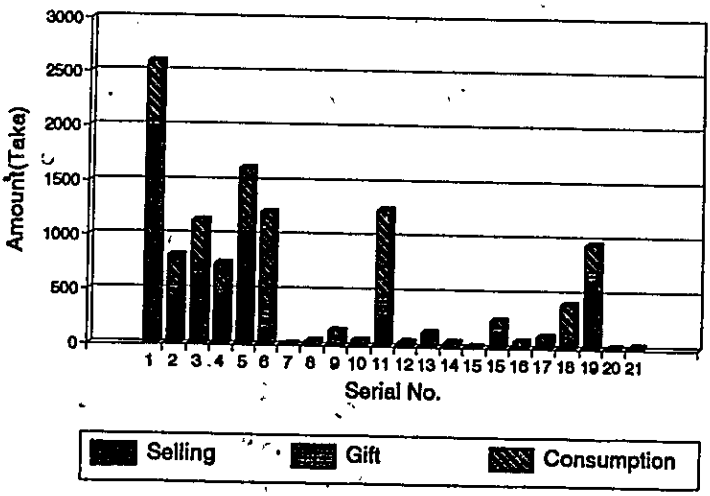


Figure-6. Kitchen Gardening Performance by Women

4.3 Pisciculture

The VC from the beginning has given emphasis on pisciculture through improved methods in order to utilize important potential food resources. Initially four young villagers tried pisciculture in a big leased ponds where no fish cultivation was undertaken priviously. Another lease holder disseminated this technique to other interested pond owners of this village and adjacent villagers after he participated in a week long training course on modern pisciculture held in Bogra.

Table-8 Cost-Benefit of the Pisciculture in Two Ponds in Aira

Name of the pond	Area (acre)	Expenditure (Tk)		Income (Tk)		Net income (Tk)		Two-year net income (Tk)
		1994	1995	1994	1995	1994	1995	
1. Dighi Pond	2.25	8,347	9,900	69,163	70,000	60,816	60,100	1,20,916
2. Puran Pond	1.25	2,000	8,200	4,310	33,000	2,310	24,800	27,110
Total	3.5	10,347	18,100	73,473	1,03,000	63,126	84,900	1,48,026

Table-8 shows cost-benefit of the two ponds. The result was more than they expected. In addition, observing this success, not only individual pond holders in Aira but also pond owners of adjacent villages have started the fish cultivation in their own ponds on commercial basis.

4.4 Poultry and Duck Rearing

Traditionally, most of the villagers are rearing hen and duck of local varieties in a small backyard space made of soil, wood and tin-plate. They usually feed chipped rice to poultry. But the productivity of egg was not so high because of careless rearing, unbalanced feed and local low-yielding varieties.

Table-9 Chicken Rearing Programme

No. of household who joined chicken raring programme	40 (17.9%)
Average area cultivated (acre)	0.36
No. of household who joined kitchen gardening programme	6 (27.2%)
No. of household who joined duck rearing programme	0 (0.0%)
No. of household who received sanitary toilet materials	7 (19.4%)

In this connection the VC purchased improved varieties of poultry (Fahomi and White Leghorn), duck (Khaki Cambel) from Bogra Livestock Office and BRAC in Bogra. The VC provided 40 landless farm households with hen and cock at fair price. They constitute 17.9% (Table-9). This table also shows us that their landholding per recipient is only 0.36 acre. Among them seven recipients overlap with sanitary latrine distribution programme (cf. 5.3). It seemed that chicken/duck rearing programme is easier than kitchen gardening programme in terms of maintenance, because poultry birds and ducks grow up as scavengers and so easy to rear them. From these remarks one general point becomes clear that such recipient's nature is a little different from innovative active women involved in kitchen gardening though they are

almost conservative and ordinary women but interested in income generating activities.

The VC distributed the birds at 1/4 of purchased price as a down payment and the rest 3/4 will be paid by instalments during the period of egg laying. Most hens have already started to lay eggs by now. Considering the demands of other villagers, VC is planning to buy more hens of improved varieties for distribution after the first batch of recovery. In the same way the VC has collected and distributed 86 duck of three-month-old to 15 landless farm families in March 1995. For this purpose, one day's training was organized in the village where the services of the Poultry Development Officer of Bogra was utilised.

The performance of Khaki Cambel (Thai variety) is quite excellent in respect of egg laying, diseases resistant and good free-rearing habits. The overall poultry and duck performances are shown in the Table-10.

Table-10 Performance of Chicken and Duck Rearing by Landless Families

Variety of chicken and derck	No. of recipient	Housing condition	Feeding status		No. of poultry distributed	No. of hen laying eggs	Total eggs laid (Nos)	Disease resistant status	Mortality rate(%)	Remarks on free rearing
			Free rearing (%)	partial supplementary feed %						
1. Chicken (White Leghorn)	15 (LFF)	Not suitable (90%)	90%	10%	107	18	378	Poor	60%	Not suitable
2. Chicken Fahomi	25 (LLF)	-Do-	98%	2%	140	62	930	Good	25%	Suitable
3. Duck (Khaki cambel)	15 (LFF)	Not suitable	92%	8%	85	38	684	Excellent	15%	Quite suitable

N.B. LFF = Landless Farm Families. Period is upto Sept., 1995.

4.5 Sheep Rearing

To raise the income of the assetless families, the VC also started to rear sheep. A dual agreement was signed between the VC and individual beneficiary, 10 she-sheep of six-month-old were distributed among 10 assetless women. The condition of the agreement was that each recipient will return one sheep of the same age of the first birth. The VC prepared one day training on improved sheep rearing for them. For the treatment, the beneficiaries are contacting the livestock department of Sherpur Thana.

After one and a half year, 10 originally distributed sheep gave birth to 26 baby-sheep. Recipients have already returned 8 sheep of six-month-old to the VC. The VC subsequently distributed them to other 7 assetless families in order to popularize the idea.

4.6 Milch Cow Rearing

In addition, 5 calves (local variety) were also distributed to other 5 assetless farm families for milking purpose in May 1995. Milk production has a prospect since Sherpur is locally famous for milk and *Doi*(yoghourt). Vendors and hawkers go around the neighbouring villages to collect fresh milk. During the reporting period one calf has already conceived. Hopefully, this programme will also bring good results.

4.7 Tree Plantation Programme

Useful tree plantation programme at this moment is of prime importance both on national and global context. In this connection tree plantation is essential in terms of the following dimensions : first, natural vegetation conservation; secondly, a part of poverty alleviation through intensive fruit tree plantation around homestead areas.

The achievement of homestead plantation resulted in quite success from the point of planting and successive nursing. During 1994-95 planting season, the villagers grafted 485 seedlings in total, out of which 84% of seedlings survived and are now growing well. On

the contrary, community tree plantation was not successful due to lack of cooperation among villagers, shortage of sufficient space and reckless grazing of cattle and goat/sheep.

Most of the planted fruit trees were grafted and hence started bearing fruits, such as mango, guava, pomegranate, jujube, lemon, etc. Women earned some cash income by selling excess fruits after home-consumption. It also can be mentioned that most of seedling were purchased from two village nurseries where active farmers are engaged. Observing this success, neighbouring villagers also showed interest in collecting seedlings from Aira nurseries.

4.8 Training and Agricultural Technology Transfer Mechanism

JSRDE project held eleven training courses in village by hiring Thana Agricultural Officer, in cooperation with Bangladesh Research Institute, Bogra, and RDA personnel(Table-11).

Table-11. Group Training and Its Impact

Date	Name of training	Partici-pant	Cost (Tk)	Lec-turer	Impact
13-04-93	HYV *Aus* cultivation BR-12 and BR-14	36	1500	2	Most farmars cultivated this rice.
09-11-93	*Baribita* vegetables production	41	2000	2	First started 7 women, then 13
29-04-94	HYV *Aus* cultivation BR-7 and BR-26	40	2000	2	Many people cultivated this variety. BR-26 brought about satisfactory result.
11-05-94	Sheep rearing training	12	500	2	Some people started rearing sheep individualy.
06-06-94	*Baribita* vegetables production	34	1700	2	First started 7 women, then 13
07-06-94	*Baribita* vegetables production	36	1000	2	-Do-
19-10-94	Potato cultivation	48	2100	2	Many persons agreed to cultivate potato.
05-02-95	Livestock poultry.	35	1200	1	Everybody taking better care of their poultry
12-03-95	Field training about potato harvesting	53	2000	3	Villagers learnt about modern method.
26-03-95	*Baribita* vegetable production and nutrition	55	2050	2	Increased from 13 to 22 households.
26-09-95	Food nutrition and hygiene	90	3500	2	Women showed keen interest and gave their children vermifuges.

VC provided supports and services. Courses on potato and HYV *aus* cultivation were given to male participants, but the other courses were open to all villagers. Kitchen gardening programmes (*baribita* vegetables production) were provided to women. In addition to these training, five men were sent to RDA through VC for training on grafting, horticulture, fishery and four women were sent there for maternity training respectively.

Agricultural extension services should play an important role. The ultimate goal is to motivate, educate and help farmers to adopt improved farming practices, and to lead to increase of production and agricultural income. The dissemination of new technology also requires development of village level institutions and economically motivated groups. Local institutions, particularly Union level, are the essential vehicle because most of the farmers are small and individually unable to obtain the services and support required to sustain agricultural development. Besides, progressive and active farmers can easily get support and services from NBD. They can play an important role in spreading ideas among the disadvantaged and small farmers who form the majority of the farming community without whose active involvement it is not possible to achieve appreciable impact on production and income.

Moreover, there exists a big gap between small farmers who need solution of their problems and supply of innovation by NBD. In this connection it is wise to work together with farmers, scientists and extension staff at the field level because farmers have much more knowledge of their environment and practical solutions. In addition to public sector, NGO's and private sector such as dealers of insecticides, fertilizer and seed, etc., can also play a vital role in spreading agricultural technology particularly for small farmers. Nevertheless, their contributions have not been properly recognized yet. We would like to propose that private sector should be given priority in dissemination of agricultural technology (Figure-8). Besides, NGO's should be covering the rest of rural development activities. Well-coordinated extension support and services at this moment are essential.

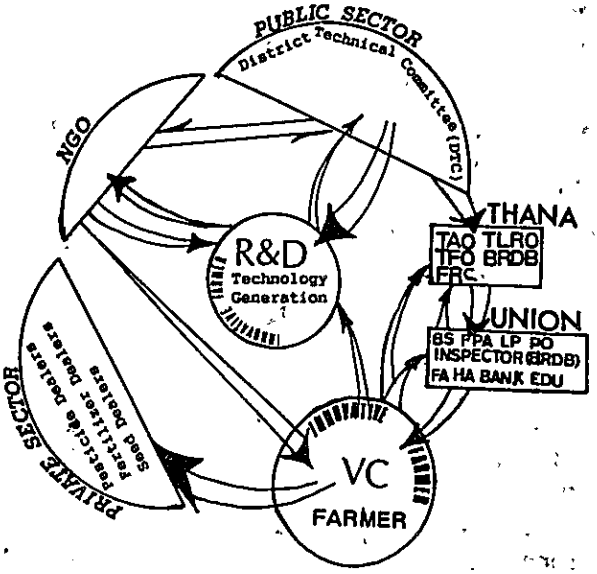


Figure-8. Integrated Agricultural Technology Transfer Mechanism Abbreviation.

BRDB	:	Bangladesh Rural Development Board
BS	:	Block Supervisor .
EDU	:	Education
FA	:	Fishery Assistant
FPA	:	Family Planning Assistant
FR	:	Forest Ranger
HA	:	Health Assistant
LA	:	Livestock Assistant
RDO	:	Rural Development Officer
PO	:	Post Office
TAO	:	Thana Agriculture Officer
TFO	:	Thana Fishery Officer
TLO	:	Thana Livestock Office
FRC	:	Farming Researce Centre

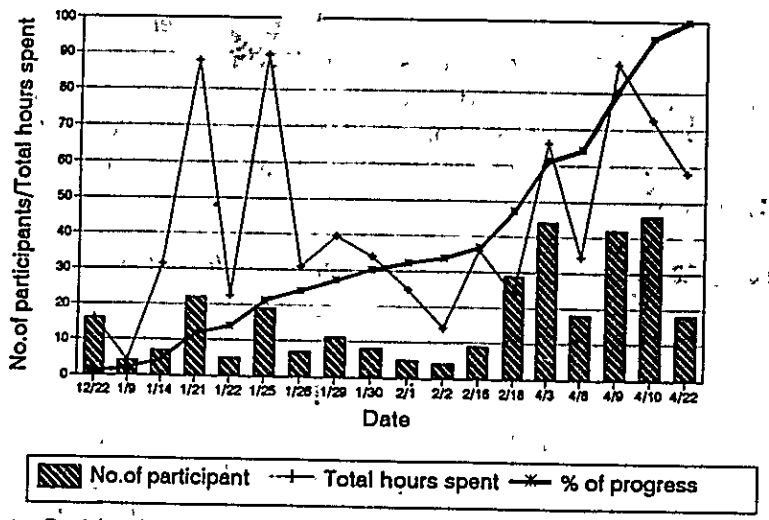
5. Linkage

5.1 Repairing of Village Roads

The VC felt that most of the internal roads and footpaths were very poorly maintained. At the beginning, VC tried to utilize the

Union Parishad fund to repair the roads and paths, and at the end it was found to be totally impossible. Later, the committee members decided to do this earthwork by themselves during the dry season from January to April 1994.

Figure-9 shows the performance of the village road repair about 150m long. A total of 18 days were spent to do the earthwork involving adjacent villagers. While 2 sets of culvert-rings were provided by the JSRDE project, a total of more than 20,000 cubic feet earthwork was done by the villagers voluntarily. Total man-days spent amounted to 156, or 1,250 man-hours.



Note: On 1/26 the number of participants were less as well as total hour spent on earthwork was minimum. So the gap is high.

Figure-9. Progress of Earthwork by Villagers

These voluntary earthwork, however, did not go smoothly as planned. After starting the earth-filling at the end of January, nearly two months elapsed with almost no progress, partly because of *boro* harvesting. By early April, only about 40% of the earthwork was done, leaving a lot of work still to be done before the rainy season starts.

VC had been urging all the villagers to participate, but active participation was only among dominant *gusti* households (84% of them participated), leaving non-*gusti* and Hindu households less active (60% participation).

It is about 300m from South *para* to Shatain *para*, and one narrow winding path connects the two *paras*. If the path could be widened, a rikshaw or a rikshaw-van could go through and miserable living condition would be improved very much. In this connection some VC members proposed to construct a new wider road. At present unfortunately the construction has not yet been started mainly because the property of this area belongs to other villagers and they are reluctant to offer their property to VC free of charge.

In contrast with above activities, villagers are keen to join their forces for religious activities such as buying land for building *madrasa* and attached sports-ground, and building a new mosque. For this purpose contribution of 20,000 Taka was collected from 86 households and 0.52 acres of land was donated by 21 households (Table-12).

Table-12. Donation for Construction of *Madrasa* Field

	No. of HH	Money			Land		
		No. of HH	Amo-unt (Tk)	%	No.of HH	Area (acre)	Average amount on case basis (Tk)
Muslim	164	71	20,270	43	17	0.42	1,003
Non-*gusti*	71	37	5,360	52	-	-	145
Gusti	93	34	15,360	37	17	0.42	1,318
Hindu	39	13	796	33	-	-	61

Note. 1) Modified K. Fujita and K. Itagaki's survey.[2]
2) Price of 0.01 acre land is calculated @ 972 Taka.

We can fairly be certain that such voluntary earthwork was not seen in the village. In the future VC should encourage such activities more.

5.3. Establishment of Village *Hat*

In January 1993, about two months after the composition of the VC, the possibility of establishment of a *hat* in the village was discussed in a meeting and also informal communication with people of adjacent villages started. At the end of April 1993 the committee decided to establish a *hat* in the village.

As a result, the village *hat* was set up at the end of May 1993 which sits twice a week. The *hat* is in front of the sports-field of *madrasa* in Aira village, which had been donated by villagers. The location is not comparatively good and ideal, but there is no other *hat* within the radius of 5km (see Figure-1).

6. Off-farm Activity

6.1. Impact of Village Hat

As for Aira action programmes, direct off-farm income-generating activities is only hat establishment. Nevertheless its impact on household economy is not small. A large number of sellers appeared in the hat as shown in Figure-10 and Figure-11.

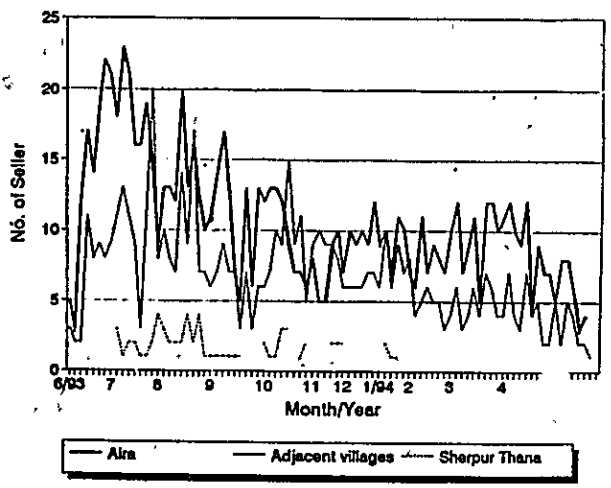
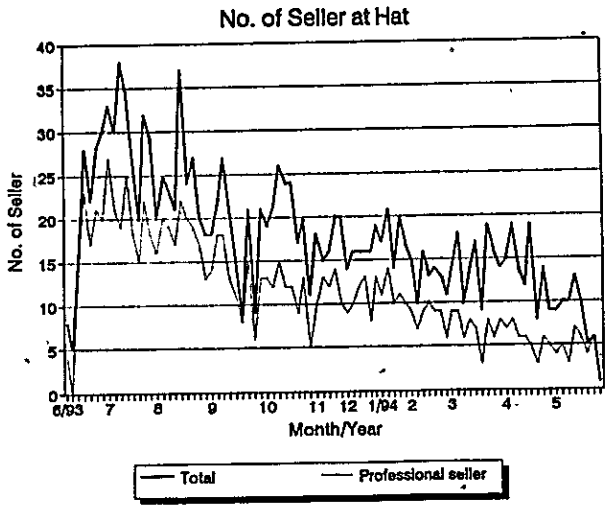


Figure-10. No. of Sellers of Aira and Adjacent Area



Note: Professional sellers are retaiters and middlemen.

Figure-11. No. of sellers at *Hat*

During the period from June 1993 to May 1994 the hat sat 41 times. A total of 1,588 persons came and sold vegetables and other daily necessities. Among them 59% were Aira villagers and 34% from adjoining villages and the remaining 7% from other areas. It was interesting to note that 42% sellers sold their home-grown vegetables and the rest sold self-made products.

Initially, average number of sellers in the *hat* was more than 15. Its size is one of the smallest *hats* around Sherpur Thana. Moreover, gradually the number of sellers was decreasing. The reasons we could identify from these tables are:

1) Approach road to *hat* has not yet been improved.

2) The *hat* has not yet gained popularity among merchants and vendors in major growth center, i.e., Sherpur.

In November 1994, a permanent tin-shed was completed by the initiative of VC. Voluntary labour was provided by villagers, while timber, tin roofs and bricks were supplied by JSRDE project.

7. Conclusion and Recommendations

1) The project has assisted to develop a sense of mutual understanding among the villagers. The meeting of the Village Committee has created a forum for the villagers to interact regularly through identification of various problems and to think about their solutions.

2) Some of the activities initiated through the project have created an urge among the villagers to solve various problems through joint efforts. They encompass issues on environmentally sustainable farming technologies to create off-farm activities for the poor. Their interests can be sustained with necessary backup services and supports to bring about positive changes in the life of the villagers.

3) For achieving development goals, a sense of unity among villagers encourages to explore and exploit their own potential spontaneously.

4) In addition to mobilization and utilization of available local resources, the VC needs to provide more financial and technical support to take up feasible socio-economic activities specially for the poor.

5) To ensure the participation of women the VC needs to look into the problems of women with wider perspectives and to help them plan their programmes according to their needs and capabilities.

6) Entrepreneurship development on commercial basis will be essential and for that for large amount of investment from external sources, eg. bank loan or cooperative loan are needed. However, the present function of Aira VC does not target such a situation.

7) On transfer of agricultural technologies, innovative farmers are ready to contact with not only public sector but also

private sector including active NGO. The Village Committee should encourage these innovative farmers in their entrepreneurship endeavours.

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Village Report of Daskhin Chamuria - The Use of Locally Existing Knowledge and Thought

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*Habibur Rahamn***
*Muhammad Salim***

I. Introduction

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

To attain some immediate increase in production application of fertilizer may be effective in the short run. For long-term productivity, however, maintenence 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-term, there is no alternative than the development of the village community. In Bangladesh village individuals can not survive peacefully and safely without their village community. Furthermore, the ideas and thoughts of the village people change slowly.

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. The present attempt to build up a sustainable rural development model in this paper is based on making

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use of the "existing thought" and experiences of the village people which they have gained on different aspects in their daily life in the village community.

II. Community Development in the past and our Expectation

Community Development in 1950s and 1960s had much motivations.

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 which was adopted in the V-AID programme in 1950s.

According to our experience, these motivations did not fit with the nature of economic activities such as business enterprise.

The success of business enterprise demands the sense of entrepreneur seeking the profitable business with strong eagerness to get "Profit" compensating the business-risk.

The entrepreneurship can only be grown by individual interest and must be under single leadership of strong private accountability to manage the employee.

But in Bangladesh, village community has been maintained by plural leadership to negotiate with the villagers for the common interest and public ethics.

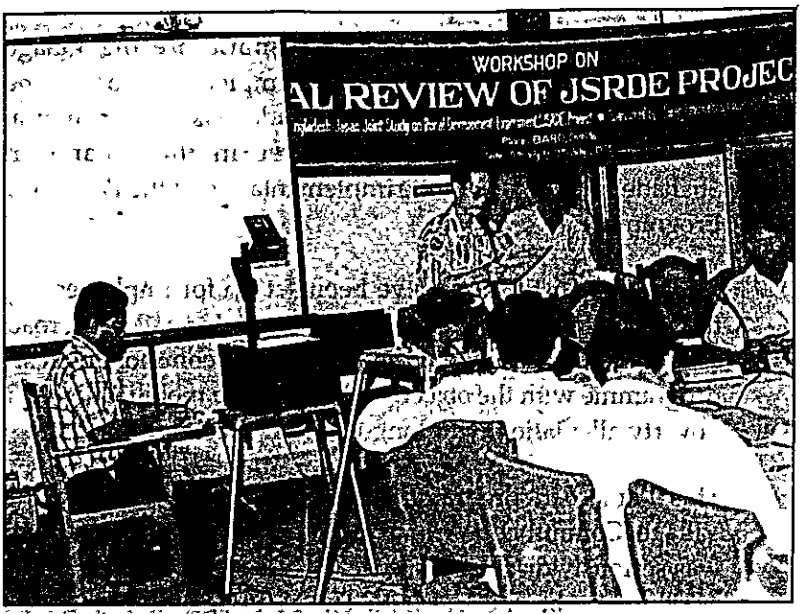
The village community and the village leaders by their collective nature could not motivate villagers to undertake business enterprise.

With this view, we have seen the village from its original characteristics.

JSRDE Tangail in 1990s has alternative definitions as follows:

(a) The village community should be recognized as a social institution for village development with community consciousness and people's common interest.

(b) Village leaders are expected to encourage the villagers to participate in "common interest" programmes under the paradigm of sustainable development and people's participation.



Dr. Kazuo Ando, Long-Term JICA expert is presenting village report in the workshop on Final Review of the JSRDE project held at BARD, Comilla from 9th to 11th July, 1995.

(c) Village development through village community and leaders must be highlighted to complement the evil of selfish individualism acceralated by the fashion of the extreme individual economic development motivation in Bangladesh. Villagers' life comprises economic as well as other aspects of life. They are sharing community life, which is much relating to socio-cultural aspects of their individual life.

"Community development" may be effective to prepare the socio-cultural conditions of the village so that the village individual can fight for poverty alleviation. Therefore, it may direct us to see the impact with long term perspective.

(d) We must remember the teachings; "The farthest way about is the nearest way home. Make haste slowly.", " More haste, less speed."

III. Institution

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

Our village institutions have been set up for implementing the " common interest" programmes. At Tangail, 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 seriously discussed in each Para meeting namely Uttar, Madhya, Purba and Dakshin. The main agenda of the Para meeting was the selection of the site of the road to be constructed because JSRDE project offered the villagers that the land for road construction should be donated free of cost. Another condition was one day's voluntary labour or subscription of one day's labour wages.

Firstly, halots were repaired by raising the height (4 feet) and extended the width (12 feet) and then the 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)	Villagers' contribution (Tk)	Total (Tk)
5 km	2,58,000	16,405 Tk 10,395 in cash) Tk 6,010 from 190 mandays labour)	2,74,405

On the basis of Para Road Programme of Dakshin Chamuria, the Para road programme in other three paras was proposed in the Union Coordination Meeting in March, 1994 with condition that (i) plan was fully agreed by the Para people, (ii) one day voluntary labour or subscription should be given and (iii) all taxes (including arear) of Para households should be paid. 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)	Contribution (Tk)		Cost Total (Tk)	Tax Arear 1993/94 (Tk)	Tax current (Tk)	Total Tax (Tk)
		JSRDE	Villagers (1)				
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	5,5,589	7,138
Baniafair (2)	0.48	20,000	3,500	23,500	1,110	3,021	4,131
Total	1.86	83,900.00	13,500.00	151,400.00	4,179.00	10,160.00	14,339.00

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

These programmes were successfully implemented by members of the VC in Dakshin Chamuria and Para Road Committee including Union Parishad Members in three paras namely Akua Dakshin Para, Pathanda Dakshin and Madhya Para and Baniafair Saha Para with good financial participation. Of course, JSRDE Village Staff supervised the programme, especially in payment of labour wages. This result illustrates that the villagers willingly participated in the programme.

The main reasons behind the success of the programme reported by the JSRDE Village Staff are as follows:

(a) The members of Dakshin Chamuria VC and Para Road Committees in other villages could understand this programme and the budget was properly used because the budget was fixed and announced in advance at the Para meeting.

(b) The villagers could directly understand the benefit of the Para Road because this programme was originally proposed by them.

(c) The progress was quite visible and so they did not express their unwillingness to pay their voluntary labour or subscription and tax.

(d) The scheme was prepared with a map indicating the planned road by the consensus of the Para people at the meeting, and so, everybody of the Para knew the programme.

(e) Household list was prepared and used for checking the voluntary labour and subscription.

(f) The efficient leadership of Matabbors, who were recognized as the members of the VC and Para road committee was observed on voluntary basis.

We are informed of other ten paras proposals for this programme in the Union.

This programme also suggests us that the villagers are ready to pay a union tax if the return would be visible and ensured.

The lesson regarding the village institution of this programme has been learnt through the exercise of the village leadership appearing to mediate the village people. In order to persuade people differing in opinion, the Matabbors borrowed the authority of Mattabors outside their own Para or Gram. This pattern is very often observed in Gram Bichar. Through the experience of the Para Road Programme, the system of the village community in terms of leadership and community consciousness become very clear. This can be called Borrowing Authority and Dual Mode of Community Consciousness (as shown in Figure 1).

It is usually observed that a few Gram Matabbors of other Grams are always invited to Gram Bichar and this practice is clearly followed in Para road programme. The programme was given to the Para community for implementation, and we expected the members of Para road programme committee would be selected from Para Matabbors, but actually, a few Gram Matabbors of other Para are invited as a member of the Para Road Committee in all three pilot Paras of the Union.

The villagers explained that parallel-authority of outside community is necessary to gain confidence of the community people in the solution of disputes, and authority of outside community is to minimize the bad relationship among the community people which might result from the decision or judgement.

We consider this gesture of the villagers as expression of the wisdom of the Bangladesh people to avoid confrontation among the close-living neighbours or friends.

This community consciousness regarding leadership is much unique and must be carefully concerned, because this is quite different from the "common sense" of the village community consciousness obtained by the people like one of our Japanese colleagues. Except the very much special case, the authority of outside community is not welcome to mediate among the community members in Japan, and a pyramid structure of leadership is easily and comprehensively accepted to him.

However, in Bangladesh Villages, the council of plural Mattabors with other communities of Para or 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 behaviuor of "Borrowing Authority" has made the Bangladesh village community to be elusive or dispersed in the image, because the leaders and the villagers very often behave as if they ignore their community and their authority.

"Dual Mode of Community Consciousness" can be explained by an entity of community (Para) and authority of community (Gramer Matabbors) (Figure 1).

According to our experience in Dakshin Chamuria, village community in English is generally translated into Gram, Gaon, Para in Bengali. Gram and a Gaon are synonymously used by the general villagers. Para is smaller community than Gram, and it has comparatively clear geographical boundary rather than Gram. In Dakshin Chamuria, usually Matabbors are classified into "Para Matabbor (Matabbors of Para)" and "Gramer Matabbor(Matabbors of Gram)" on the basis of settlement unit. Each Para has plural number of Gram Matabbors like representatives of each Para. Gram Matabbors seem to be entity of Gram consciousness of the general villagers. Because, general villagers link up functionally with one another on a pivot of the leadership of

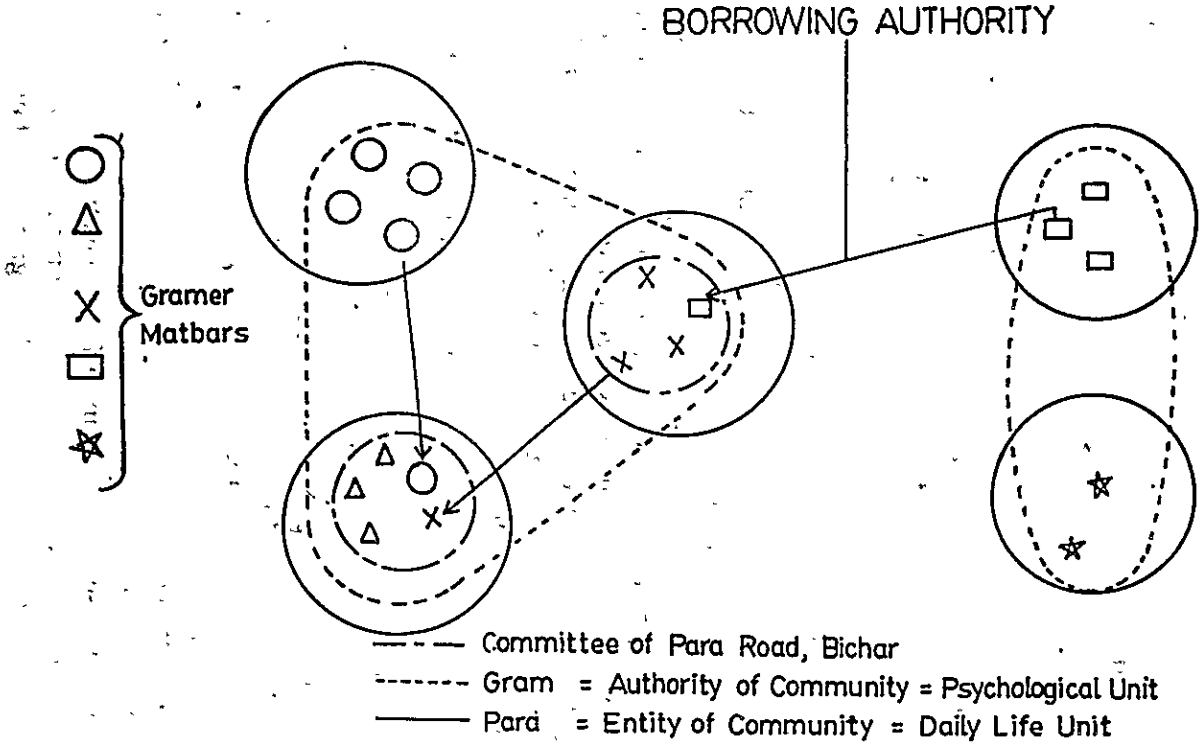


Fig. 1 Dual Mode of Community Consciousness

Gram Matabbors. And as mentioned before, authority of Gram Matabbors is maintained in relation with external authorities. They very often borrow the external authority to imply their motivation. In other words, the villagers seem to consider Gram consciousness as socio-psychological unit in order to use Gram Matabbors' authority to maintain security of their society.

Usually, villagers spend most of their time in their Para. The plots owned by Para dwellers gather in the field. Within a Para, the villagers belonging to several lineage are living in mixture, consisting of one Bari. It is the ordinary dwelling patterns in the village. Furthermore, one Gusti people originally lived in the same Para. When the villagers make a group for Mati Kata(earth work) or Chukti(contracted farming work for harvesting, transplanting of rice etc), most of the group members are usually the dwellers of the same Para. The villagers of the same Para very often meet one another in daily life. Para is more familiar to the villagers than Gram. Therefore, the villagers' dwellings in the same Para have grown their community consciousness naturally and so Para can be considered as a living association based on daily communication.

It can be said that solidarity required is higher in Para rather than in village level. For example, we can refer to the recent problem of Jatra (Village Opera Drama) in the village. Firstly the Jatra was scheduled to be held in Madhya Para,jointly with Uttar Para people but some people of Uttar Para who were not satisfied with management and role of the Drama have held another programme of Jatra at the same time of the Jatra of Madhya Para. We observed confrontation among inter-Para people in our programme activities with respect to the selection of demonstration plot of agricultural extension service and trainee for vaccination of livestock department. Therefore, the selection for particular individuals in relation with development programmes should be carefully conducted with due attention being paid to Para community consciousness. If the selection is felt by the

general villagers as unfair, the programme may prove to be a bone of contention among the villagers.

On the other hand, for general villagers, the 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.

III. **Functions of Gram Matabbors Expected by the Villagers of Dakshin Chamuria**

i) Bichar or Shalish held by Gram Matabbors to solve confrontation among the villagers by using ethical logic.

ii) General meeting namely Gram Shava called by Gram Matabbors to disclose the information to the general villagers to decide a candidate of Union Parishad member etc.

iii) Voluntary earth work organized by Gram Matabbors to protect embankment of the river from flooding in cooperation with other villagers by appealing to the general villagers for their common interest.

iv) Establishment of Hat in cooperation with Matabbors of Baniafair, neighbouring Gram.

v) Establishment of primary school by negotiation with Matabbor of Mohela, neighbouring Gram, and the government of Bangladesh.

vi) Union tax and relief operation; e.g. recent urea fertilizer distribution as authority for Gram. The Union Parishad members usually approach Gram Matabbors from his side, if the programme, by its nature, cannot be closed in the private network of the Union Parishad member.

vii) Guidance and help to approach the external authorities; Union Parishod, NGO, bank, government support services etc. and when the general villagers approach to the external authorities, they are given the identity of their Gram.

Authority of Gram Matabbors is not only expected by general villagers in their own village but also is recognized by the neighbouring villagers, especially Gram Matabbors of these villages. Judging from their functions mentioned above and their publicity in other villages, Gram Matabbors seem to maintain their authorities by keeping relationships with the other external authorities. This pattern can also be observed in case of Para Matabbors.

Usually, Para Matabbors are not identified or paid attention like Gram Matabbors in other Paras. But, the affairs which occurred in the Para are firstly tried to be settled at Para Bichar held by the Para Matabbors including Gram Matabbors of that Para. It mostly happens that one or a few Gram Matabbors of other Paras are invited to Para Bichar as the negotiators.

Matabbors of the Para, where the confrontation occurs among the 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 decision of Bichar may create the strained relations between Matabbors and the villagers in Para, because they are neighbours in the same Para. They meet almost every day with the dwellers of the same Para. In addition to the neighbour's feeling, the third parsons' judgment is much acceptable for the persons concerned. In Para, from broad sense of community consciousness, the Para Matabbors are the relatives of the persons concerned even if they do not have blood relationship with them. At Para Bichar, the third parson means the authority of Gram represented by Gram Matabbors of other Para. In the case of Gram Bichar, the third parson means the authority of the neighboring villages. It can be said that the person to manipulate this mechanism can become Matabbors. They should establish the linkage with the outside authorities to keep their authority for their community. This talent of Matabbors is well demonstrated in their function expected by the general villagers as given above.

Therefore, 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 services. This is the same mechanism of Gram Matabbors to encourage the villagers of Dakshin Chamuria to participate in the flood protection programme mentioned in Table 3.

The Village Committee (VC) was formed to take partly the authority of Gram community as a part to local administration and leadership to Para community. However, in July, 1993 six months after introduction of the Village Committee ,it was obvious that the VC is a little far from the general villagers. And so, Para meeting was started to talk with the general villagers. At Para meeting the villagers grouped by Chakla attended the meeting voluntarilly and talked with one another with an open mind. For Para neighbours, the VC is likely to be considered as super community consciousness of Para community as mentioned in Bichar and Para Road Committee. The members of the VC are mostly Gram Matabbors and therefore, the VC is the authority to the general villagers in case of Gram Bichar.

As mentioned above, without "Borrowing Authority", it seems difficult for the villagers living in Para to participate in the programmes. This is well illustrated in the acquisition of land for Para road free of cost and collection of subscription, tax and voluntary labour. This dual mode of

authority and an entity of community is unique. As a result, our institutions- the VC and the Para Meeting can be said to fit with this habit of community consciousness. The VC under JSRDE project is also the institution to make the Gram as psychological unit to be more visible to the villagers as well as the government field assistants. The Para Meeting is the forum of the people who are willing to participate in rural development programme in the village.

IV. Limitation of Cooperative

So far we understand, the pattern of Borrowing Authority behaviour is not observed in the leadership of the cooperative, namely KSS, BSS, MSS, etc. The leaders namely 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, the Bangladeshi villagers are not familiar with the "closed community for authority". As a habit, their system is "borrowing authority" and "dual mode of community". The community with this system can be called as "opened community for authority". Therefore, the institution maintained by "the closed community" may not be suitable to village people of Bangladesh, who are familiar with "opened community".

Without intervention of outside authority, "closed community" of the cooperative may allow the manager to become "Tout", because the 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. It may be said that the cooperative does not have check and balance mechanism as village community between leaders and general villagers.

Institutional system for sustainable management of rural institution are considered by "borrowing authority" and "dual mode of community consciousness" as follows:

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

(b) Some of regent members of the other Gram Matabbors or leading persons of other institutions should be invited on request of the general members of the institution to solve their problem in the manner of "borrowing authority" and "dual mode of community consciousness".

V. Linkage of the Village with the Local Government

The Linkage of the village with the local government can be classified into common interest and support service as shown in Figure 2. In JSRDE Tangail, common interest is infrastructure development and support service is the services of human basic needs, agricultural extension, livestock etc. based on individual interest. And, the JSRDE Institutions of the Linkage Programme are the four tiers; the Para meeting, the 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 Tangail activities due to the adminstrative problems of the Thana level officers at Khalihati Thana. Therefore, in JSRDE Tangail, the experiment of linkage has been focused in 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 level officers. Chairman is one of UP Chairmen by rotation. MP is the advisor to the committee. TNO is the secretary. Accordingly, we can consider that our aim at Thana is realized in other form. This institution is worth following.

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

In the voluntary participation of the villagers in the 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. The villagers might have considered that the benefit of the culvert was not theirs and this work should have been done by the Government(Union Parishad 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. Otherwise, they behave as if they know nothing of the programme. If they 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 programmes. 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 this programme should be flexible so that the villagers can adopt their system of mediation

namely form borrowing authority for programme implementation.

The condition (Sheccha Shrom, Chanda, tax payment, plan approved by the community) 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 like JSRDE village staff or somebody 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 2. 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.

TRDO or ARDO (or somebody like JSRDE staff) in the UP meeting for the programme is sometime necessary as the facilitator of the programme. For example, when the discussion became very complicated regarding the selection of the village etc., ARDO and JSRDE staff an officer of the Union Coordination Meeting acted as a mediator as borrowing authority to the union parishad members.

The following issues are identified regarding support service programmes (Individual Interests) through our experiment:

(a) Dialogue of Coordination Meeting at the village and union was to deliver the information with the private networks of VC members and Union Parishad members and to monitor the quality of support service in terms of performance of Government assistants and felt-needs of the villagers.

(b) Bari Group and Para meeting are well recognized among the villagers in order to disseminate the information because the Para meeting is familiar to them. This is a variation of

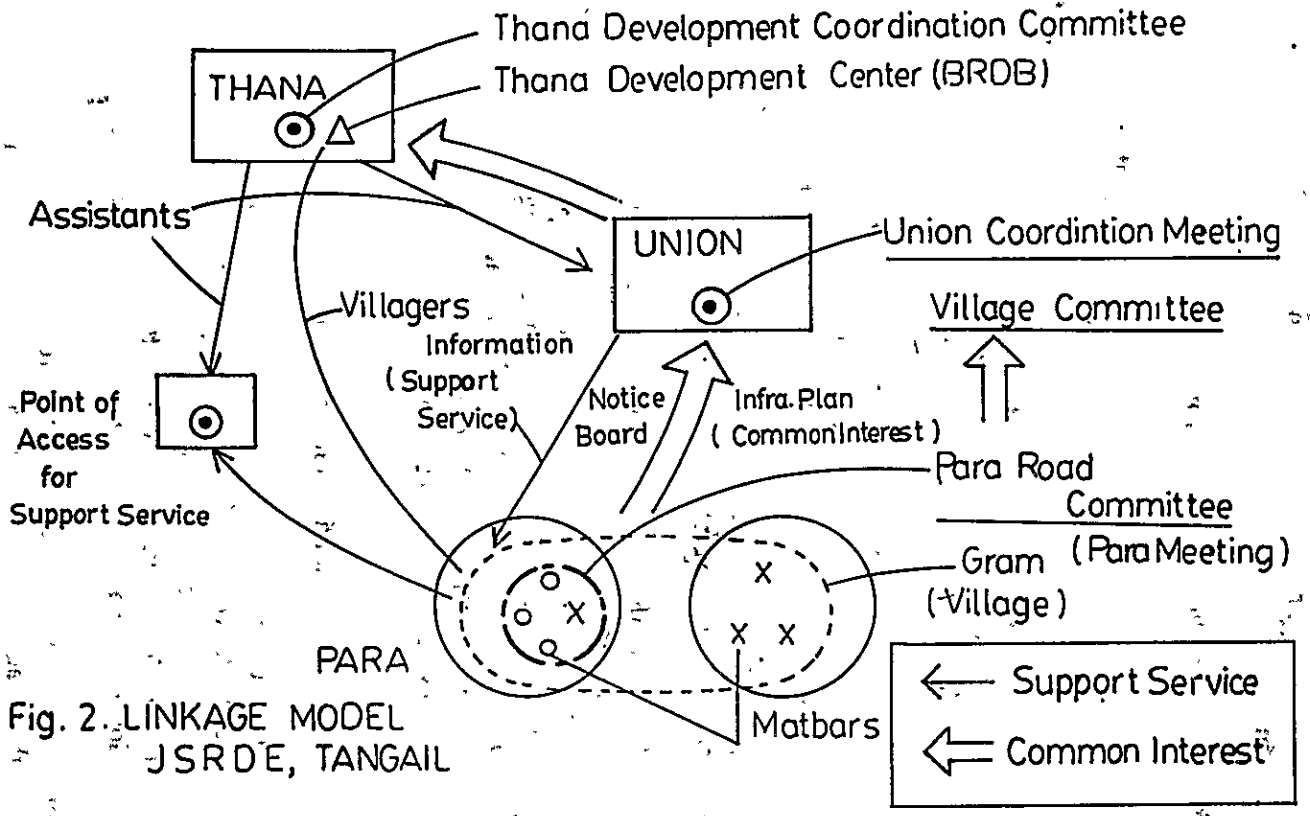


Fig. 2. LINKAGE MODEL
JSRDE, TANGAIL

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 project. Their attitude was against the Para road programme since early 1994 to the recent time. During 1994, very few para meeting was held at Dakshin Para. In other Paras, Para meeting was held almost regularly every month. The attendance rate against total household of each Para is less than 30 %, but we are satisfied about this attendance. Because, one or few villagers of every Chakla attended Para meeting. If we calculate the attendance rate on the basis of Chakla, the figure increases 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. The Para road programme and information delivery is corresponding to such a programme.

(c) 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 criticims sometimes encourage us to give an eye to the hidden corner of our programmes.

(d) The Union Coordination Meeting performs better than the Village Coordination Meeting in terms of attendance rate and accountability of participants. At the union, the good response of UP members can be observed and the Government assistants disclose their service delivery schedule. For instance, some assistants like Livestock and Public Health Engineering are not scheduled to visit the village every month. Thus, the discussion about their

performance was sometime passive between VC members and the assistants in the Village Coordination Meeting.

(e) 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 schedule in advance to the village and to encourage the villagers to get access to the service. According to the report of the livestock assistant, the numbers of cattles vaccinated increased by 1.5-2 times. The approxemate figure is now more than 100.

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

(g) The eight Notice Boards in the Dakshin Chamuria village and 11 Notice Boards in the union have been familiar to the local people in the village and the union for last two - three years. Notice Boards in the public places namely hat etc. are significant to disseminate the information of support service.

(h) System of information delivery through Notice Board at Union level is transferable by the existing man power of Union Parishad. The news brief of the schedule of assistants are brought by JSRDE staff to the UP Secretary and the Chowkidars are assigned in putting the News brief at Notice Board. However, in the village, JSRDE staff do this work.

(i) The Para meeting with Notice Boards was introduced to the pilot Paras in the Union. Member and JSRDE village staff

attended the Para meeting. This programme was started since May, 1995 to extend our linkage system in the other Gram of the Union through Union Parishad.

V.I Process of institutional linking between the village and the Union Parishad

As mentioned in the chapter IV, the Gram is the psychological unit for the authority of community. Thus, we have the experience that even the common interest programme namely culvert construction in Dakshin Chamuria did not encourage the villagers to participate in the programme. Without careful attention to their entity of the community consciousness, the villagers do not get organized. The people of Dakshin Chamuria behaved in the collective manner, when the programme was offered to them within Para. And, in Dakshin Chamuria we have started the Para meeting to disseminate the information and explore the felt needs of the villagers. According to the experience in Dakshin Chamuria, the Village Committee has been able to encourage the villagers to participate in the programmes after establishment of the Para meeting.

In the Para road programme at Union, the Para people selected the committee members including Gram Matabbors of the other Para according to their behaviour of borrowing authority and dual mode of community consciousness. This committee can be considered to be a prototype of the Village Committee.

At the beginning of the Para road programme at Union, if we had started to form the village committee, we might be needed a huge money for the programme. Because, we might have faced the problem of confrontation among the Paras of these three villages and then, we would have to raise the budget for all the Paras in the village.

Therefore, the committee for Para road programme is enough to the Para people. For the villages surrounding this Para,

this pilot Para must become the base for the dissemination of the information through the Notice Board and UP members. Firstly, the dedicated Para(it means the dedicated Matabbors) should be taken for the programme. With the influence of the dedicated Paras or Matabbors, other Para will willingly come to participate in our institutional models for the linkage.

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 the UP Members. The UP Members will take the proposal to the Union Coordination Meeting. At this time the members of the committee for Para road programmes automatically will be formed like the Village Committee members. 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 the Paras the members of the committee will be shifted to the Village Committee based on all the Paras. Upto the final stage of the Village Committee the tentative Para road committee will act as a part of the Village Committee as that of Dakshin Chamuria. According to our experience of three Paras at the Union this procedure of expansion of the village committee is 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. We would better get hold of the dedicated people and make them our port or shelter in vast rural area. At present, after completion of our Para road programme we are requested informally by the ten other Paras to participate in the programmes. This bears testimony to the significance of our perspective.

Thus, to establish the Village Committee, it takes few years. Otherwise, to activate the Village Committee from the beginning, a huge amount of budget is required to cover all the Para like Dakshin Chamuria Village. As shown in Table 1 and Table 2, the cost performance of the programme is much bigger in Dakshin Chamuria than in other three Paras. Union-Para institutional linkage through UP member with support of some NGO has good prospect. After experiment at union in 1994/ 1995, we became confident of the potentiality of expansion of our model in this way.

In case of the linkage with support service, the Para is the appropriate receiving body for information. This has been proved from the JSRDE programme and the programmes of E.P.I., Grameen Bank and U.G.S.T. Their Para based programmes are successfully implemented. Support service for common interest is not so much a problem. The most important point is that the schedule of the assistant must be disseminated in time and the monitoring must be continued at the Union Coordination Meeting. After establishment of Village Committee in several Gram, the VC members may be invited to the meeting as was usually done by late Mr. Ayat Ali Molla, the Village Committee Chairman of Dakshin Chamuria.

VI. Ecologically Sustainable Appropriate Farming Technologies

Dakshin Chamuria is located in a typical floodplain. In the floodplain, the hydrological ecology or environment has a great effect on the agriculture and daily life in the village. This environment is changeable with the technological interventions including the construction of roads and channels.

Therefore, technology should be selected considering its ecological sustainability and the appropriateness.

The change of the ecology which occurs by the intervention of the technologies, must be sustainable so that the farmers themselves can adapt their technologies to the changing circumstances or ecology.

The technologies should continue to be adapted considering major disturbance to environment.

The appropriateness may be considered in terms of accessibility and applicability of the technologies to the farmers.

The technologies available in the villages have been adapted by the farmers meeting the above conditions. Therefore, the technologies applied in JSRDE are designed to be improved or borrowed from existing local technologies.

It may be relatively easy for us to identify the ecologically sustainable farming technologies apart from the problems that the farmers are facing. Besides, the problems, which the farmers cannot overcome at this moment should be solved taking the above criteria into consideration. The development of the appropriate technologies on the basis of the locally existing technologies is completely a difficult task in rural development. The clue for the development of such technologies certainly become elusive. Therefore we have started our task by means of learning from the experienced farmers; we also paid continuous attention on the existing knowledge and thought in the village.

Our attempts for this issue are as follows;

(1) Rural hydrology approach,
(2) Resource development of homestead,
(3) Improvement of soil fertility,
(4) Promotion of crop diversification,
(5) Introduction of new technologies.

Rural hydrology approach has been developed as an appropriate technology for investigating the hydrological

change occurred by planning the rural infrastructure road etc. This technology requires a minimum set of the following items: motor- cycle or bicycle, foot to walk around, an eye to see real environmental conditions, an ear to listen to those who are appraised of the local conditions, and have mind to share with local people for identifying land and water conditions, constraints to development and real needs of the locality and local people.

A dynamic hydrological environment of the floodplain at Shahadebpur analyzed and the results were applied to formulate plans for building rural infrastructures including Union and village roads, bridges and culverts, low cost river-bank protection palisading, transplanting of African dhaincha (Sesbania rostrata) for protection of deepwater rice from water hyacinth. Especially these programmes of rural hydrology approach were prepared to develop the technologies to make the change of ecology sustainable.

As shown in Figure 3, the Lowhajang river is shifting its course from the west to the east to a great extent. The problem of bank erosion along the east bank was very serious. Therefore, the improved palisadings shown in Figure 3 performed remarkably to stop the erosion. At present, seedlings of Dhol kalmi (Ipomea fistuosa Mrt.) have been transplanted before palisadings to reduce the speed of the current of the river. Our attempt still does not get the significant institutional supports from the villagers as well as the local administration because of lack of motivation or failure in creating awareness among the villagers of Mohela where the programme is conducted. However, the technological advantage is well demonstrated and so it is expected that this technology will be recognized as one of the appropriate technologies for river bank protection in Bangladesh.

Resource development of homestead has been sought by programme such as tree grafting, introduction of modern Chula(furnace), homestead garden and resource inventory

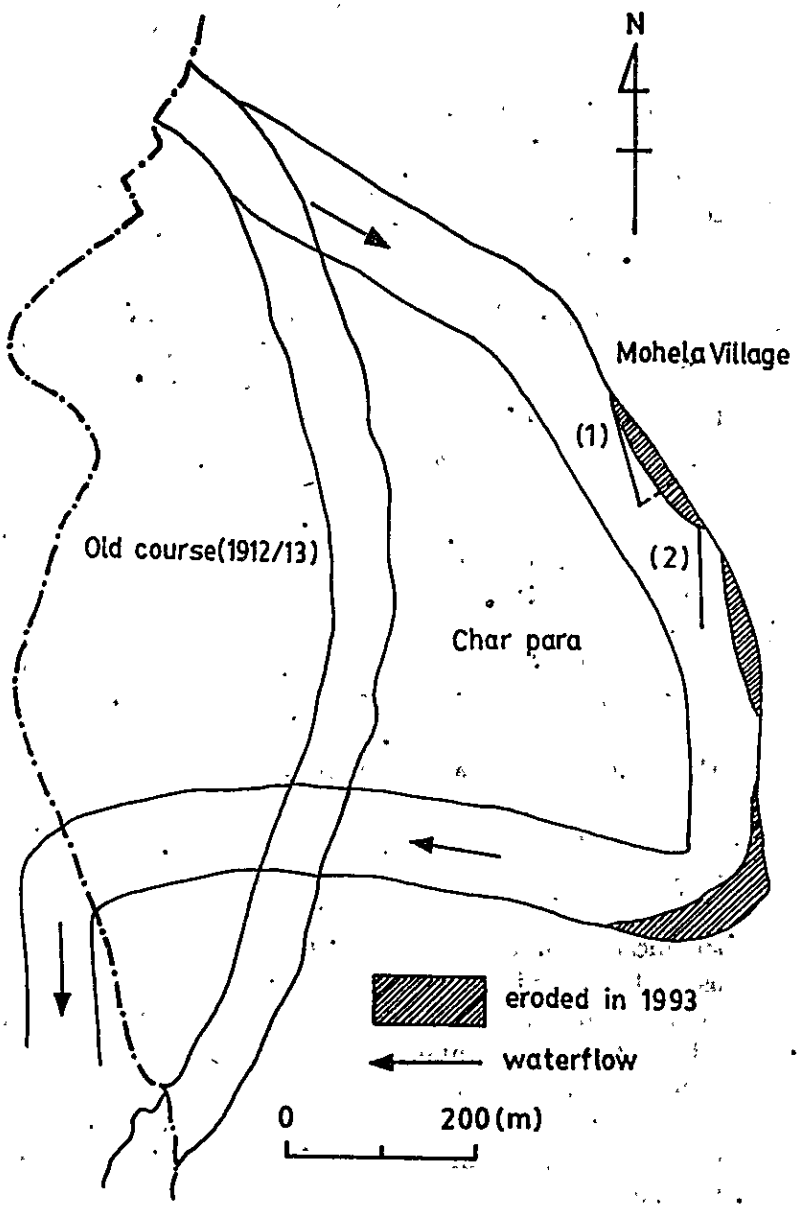


Fig. 3. Course change of the Rohajon and location of palisading.

of homestead. Improvement of soil fertility has been first tried by introducing the modified cropping pattern including the pulses instead of Deep water Aman rice- Boro rice(MV) pattern. The introduced pattern was Deep Water Aman rice-Pulse -Boro rice(MV) or Pulse- Aus rice(MV)-Aman rice. Then the African dhaincha was introduced into the fallow land and Deep Water Aman rice fields. Crop diversification has been attempted by introduction of improved vegetable varieties namely winter vegetables, kankon (Gima kolmi), soyabean, garden pea etc. As new technologies, the new breed of poultry birds, fish culture in new ponds and pedal pump were introduced through demonstration.

For the introduction of these technologies, we have discussed about their sustainability with the experienced farmers in the VC meeting, Para meeting. Importance of all of these technologies except modern chula have been realised by the farmers even though these were not totally new to them. Out of these attempts, the African dhaincha, fish culture in new ponds, cowpea cultivation on levee of Boro rice fields are attractive to the farmers. Specially, fish cultivation in ponds and Dhaincha cultivation have rapidly spread in the village just after introduction. However, other attempts could not attract the farmers.

From these results we can prepare the technological intervention models to seek the ecologically sustainable appropriate technologies.

Firstly, we want to mention the common characteistics of these three programmes, African dhaincha, fish culture in pond and cowpea cultivation. These are as follows :

(a) These crops or technologies are not new to the farmers at all, but the innovations are new. For instance, African dhaincha has got advantages over Deshi dhaincha as an innovation. The structure of the pond of Dakshin Chamuria is different from common ponds. Here the pond using the road as

embankment, is mostly shallow in depth, and usually called doba. The Cowpea is not different from a cow pea of local variety which is familiar to the farmers. However, it was cultivated in the levee of irrigated Boro rice field by JSRDE project intervention. The seed was bought from the seed shop at Tangail. Cultivation method which is practised dominantly around Chittagong is completely unique to this locality.

(b) Secondly, these technologies were not demanded by the farmers to reform of the existing systems such as cropping pattern, land and their own technologies. In comparison with these three, other programmes somehow required the farmers to modify their own system for the technologies to be introduced. For example, the programme of improvement of soil fertility by changing the cropping patterns was not accepted by many farmers.

(c) A good example is African dhaincha. Deshi dhaincha (Sesbania aculeata) used to be cultivated in the village to provide green manure and firewood before the introduction of MV Boro rice. Deshi dhaincha needs essentially to be broadcast in the dry field in March or April. But in March or April, MV Boro rice still occupies the field and so if the farmers want to cultivate Deshi dhaincha in the field they must broadcast the seed in May or June after harvest of MV Boro rice. In May or June the rice fields are wet or inundated by the early rainfall. So, cultivation of Deshi dhaincha was non-existent in the village even though the farmers recognize the value of deshi dhaincha. However, the sapling of African dhaincha can be transplanted in wet and inundated field just like *Dhol kalmi* (Ipoea fistulosa). The stem cutting of African dhaincha is enough as a sapling. Therefore, African dhaincha is much preferred by the farmers for transplanting in the fallow land, the levee, mixed with Deep Water Aman rice and the embankment of the pond. In the rainy season in 1994, African dhaincha was newly introduced by JSRDE project in cooperation with FSR (Farming System Research)

of BAU. Sixty four farmers took the stem cuttings from JSRDE project while 80 farmers could not get it in spite of their eagerness. In 1994, the number of seedings was in short supply.

(d) The third common characteristics is that, from the view-point of common sense of farmers, these three technologies made use of fallow land, levee and doba etc. Because of this characteristics the farmers felt strong desire for their introduction. Especially, in the case of fish culture in pond the poor farmers voluntarily and jointly started fish culture, because usually the poor farmers at least have the small bari bhiti and doba even though they do not have land. The Para road programme gives the poor farmers a good chance to have access to the new technologies i.e., fish culture in pond.

(e) The fourth common characteristics is that these technologies do not require huge expenditure. The fish culture in pond can be done incurring only the cost of fingerlings. Cowpea in the levee of irrigated MV Boro rice can be cultivated incurring only the cost of seed and may be branches of tree as a support-stick without irrigation and fertilizer. In comparison with cultivation of cowpea at bari bhiti (homestead), the cowpea at the levee grew well because of good soil moisture. For African dhaincha, only the cost of seed is necessary. African dhaincha can produce huge amount of seed which can be stored by the farmers themselves.

The common characteristics of these three technologies are: (i) not new at all, but something new to break the common sense, (ii) does not request to change the farmers' existing systems, (iii) apply the technologies to fallow land and (iv) the technology should be of low cost for cultivation.

From the view-points of the technological dissemination, we can see the three types of the farmers as shown in Figure 4. The first one is the progressive farmers to be interested in

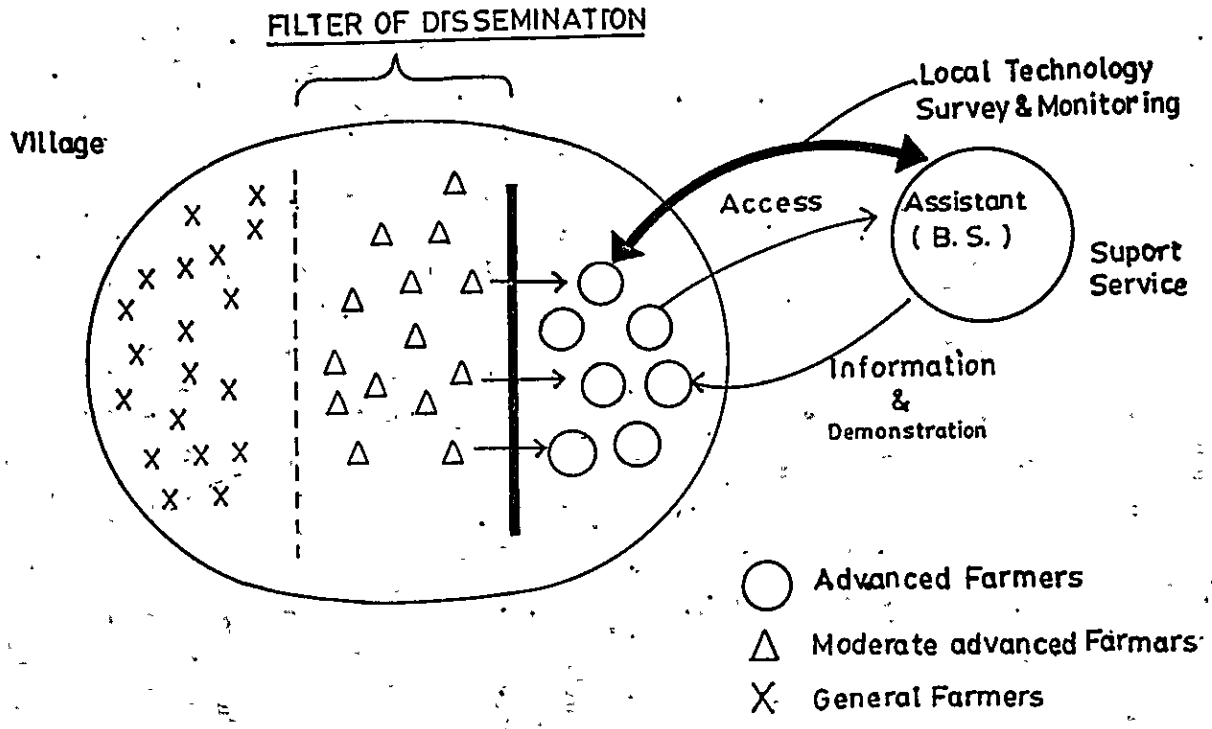


Fig. 4. Dissemination of Technology in the Village

the new technologies. The number of this type of farmers is very small. The second type is moderately progressive farmers. At first, they usually follow what the progressive farmers do and then after being confirmed of the results, they accept the new technologies. The third one is the general farmers. They make decision to see what the neighbours do. Usually, they do not have strong motivation to new technologies. The number of this farmers is mostly dominant in the village. In Dakshin Chamuria, the progressive farmers can be called 'kutinati', the moderate progressive farmers as 'dhekadeki' and the general farmers as 'shadharon'.

All the technologies except three seem to reach only to the progressive farmers. The moderate farmers are not likely to have confirmed these technologies. Some technologies namely MV Aus rice, BR 27 had been cultivated for only two years and then was discontinued. But, these three promising technologies might reach the moderate farmers and some general farmers. Therefore, we can consider that the moderate farmers are the filter to judge the accessibility of the new technologies and the progressive farmers are the innovators of the technologies. We feel that this filter between the progressive farmers and the moderate farmers seem strong. It may be recommended that this filter should be carefully observed and identified for the technological dissemination. The opinion of the moderate farmers is much appreciated for modification of the new technologies.

Before the conclusion of this chapter, we intend to draw the attention to the relation among the infrastructure development, environment(ecology) and technological intervention. As we learnt the lesson from the "fish culture in pond" programme, the infrastructure is one of the most effective technological interventions. As shown in Figure 5, the environment is changed from A to A' by intervention of infrastructure, but the changed environment A' must increase or enhance the sustainability and accessibility of the farming technologies. Otherwise, the infrastructure may be ignored.

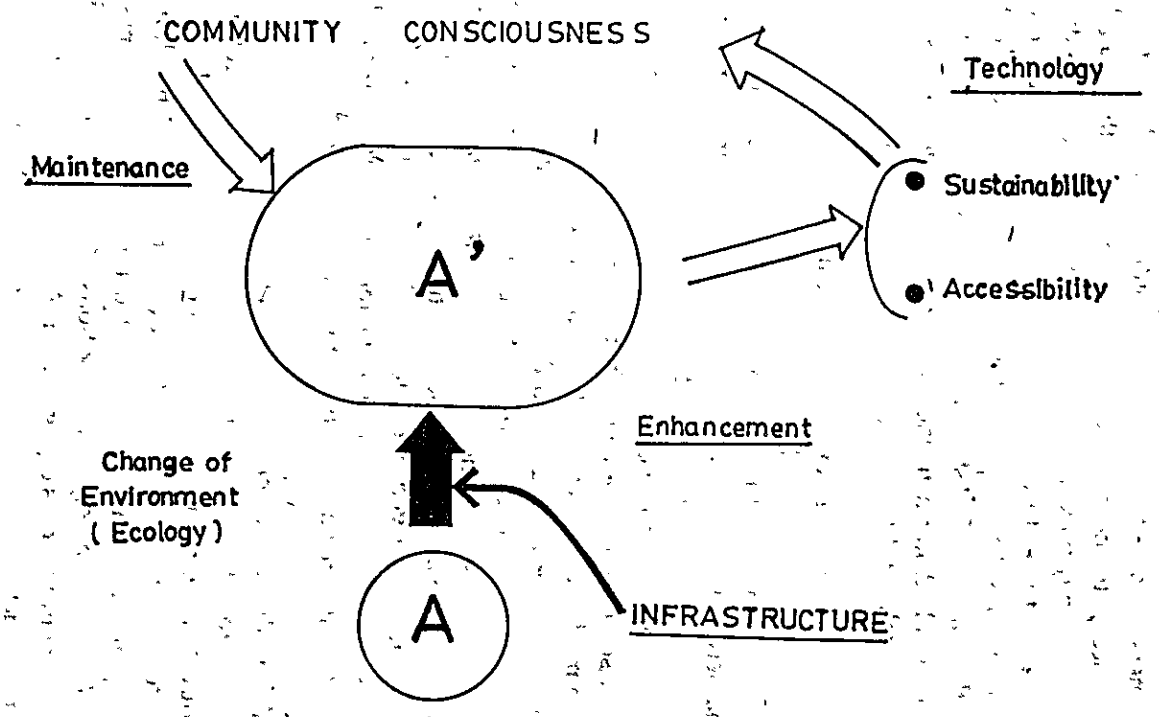


Fig. 5. RELATION OF ENVIRONMENT TECHNOLOGY AND INFRASTRUCTURE

in terms of maintenance. If the farmers feel the necessity to maintain the environment of A', certainly they organize themselves in their community to repair the infrastructure. This cycle is well observed in Dakshin Chamuria.

VII. Off-Farm Job Opportunities : Income Generation

Our approach in this regard is to encourage the rural entrepreneurs by resource mobilization in terms of rural infrastructure, capital formation and linking employees of NBD with the villagers. This attempt is described in Figure 6.

The attempt for rural infrastructure is mainly to improve the road communication and hat development. These infrastructures are repaired and newly constructed by the direct participation of the village community in co-operation of local government. The infrastructures made from earth works have been planned for repair and construction by the village in cooperation with JSRDE project and Union Parishod in terms of finance and administration. This programme was mentined in detail in Institution, pont III. The 15 m concrete bridge and box culvert are constructed by the Local Government Engineering Department and District Parishad respectively. This programme was initiated by the Village Committee of Dakshin Chamuria with a request to the Local Government Engineering Department. The JSRDE village staff as a villager contributed much in negotiation and persuasion with local administration. Without their support this programme would not have been materialized. In this connection, some kind of village based organization like JSRDE Tangail is much required to support the linkage of the village to the local administration as well as linkage programme itself.

The economic impact of infrastructure can not be measured at present, because the programme was just completed or is still continuing and so we measured the estimated impact

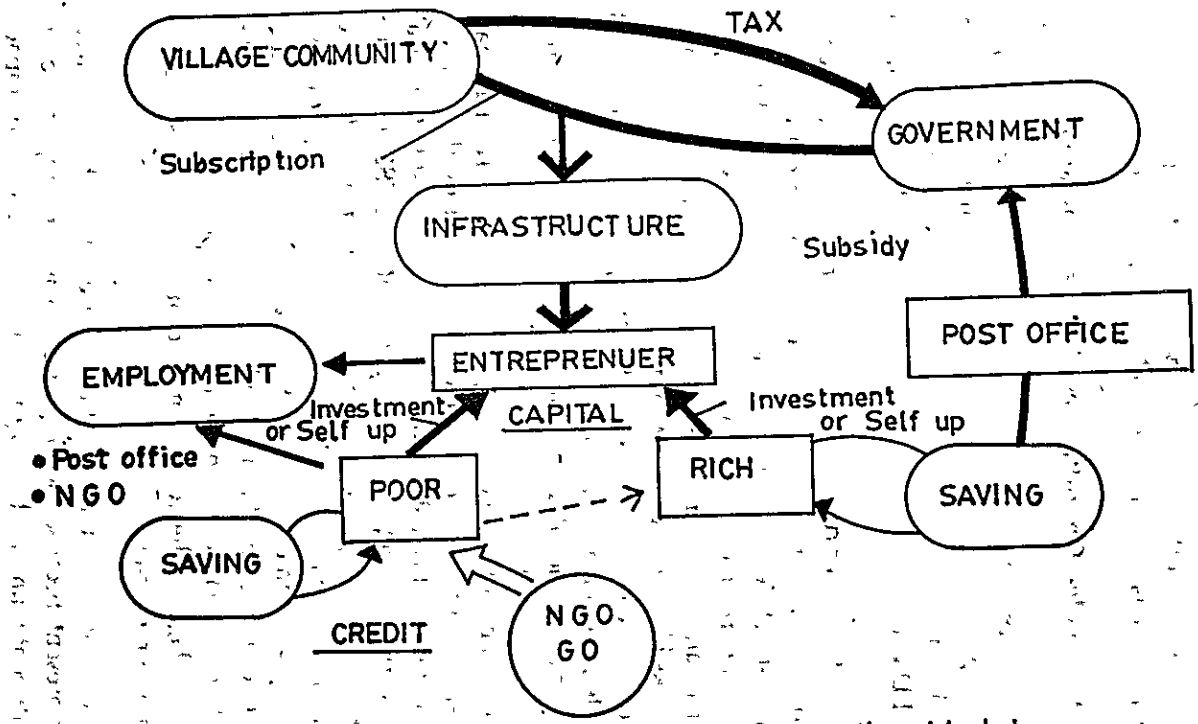


Fig. 6. Off-Farm Job Opportunity : Income Generation Model, JSRDE, Tangail

by hat survey and the number of Van Rickshaw between Mohela and Chamuria Gram. Mohela is accessible to the highway of Tangail-Mymenshingh without *bhanga* but Chamuria had *bhanga* between Mohela. The estimated direct impact of bridge is given in Table 5.

Table 5. Estimated direct impact of bridge at Chamuria Bhanga

(1) Estimated increased number of Van/Rickshaw of Chamuria in comparison with Mohela.

Increased Numbers	Mohela accessibl to Highway	Chamuria interrupted by *bhanga* to Highway
11	18	7

(2) Cost and benefit of direct impact of bridge

Earning by Van-Rickshaw per month (Tk)	Total Earning in Year by 11 Van Rickshaw (Tk)	Total Cost of bridge (Tk)	Annual Average Cost of bridge per year if the longivity is 30 years
1,000	1,32,000	7,50,000	25,000
1,200	1,58,400		

Table 5 explains the good prospect of investment for infrastructure development in Dakshin Chamuria village. If the life of a bridge is 30 years, the annual cost is simply calculated to be Tk. 25,000. This cost is seemingly somewhat big. However,the bridge has potentiality in increasing the 11 number of Van/Rickshaw in Dakshin Chamuria. These Van/ Rickshaw pullers can earn Tk. 1,32,000 to Tk. 1,58,400 annually. The Van/Rickshaw pullers are almost poor but they are considered as one of small enterprenures. This analysis indicates that the development of infrastructure for long term perspective has good prospect for the development of small enterprenuereship among the poor. And so the credit loan programmes to the poor should be implemented in accordance with the infrastructure programmes.

Annual cost of Tk. 25,000 should be collected from the direct beneficiaries and subsidy of the Central Government fund. At the weekly hat about 200 small merchants gather to sell their goods and so the 218 persons (18 Van Rickshaw pullers+ 200 small merchants) will use the bridge directly. If they would pay a subscription of only Tk. 2 for bridge per week, the total subscription per year amounts to Tk. 22,672. The rest of Tk. 3,328 is only to be supported by the subsidy of the Central Government, through direct tax or savings from post-office.

The direct impact of infrastructure of road and bridge can be estimated in terms of the number of participants to the weekly hat as shown in Table 6.

Table 6 : The estimated impact of weekly hat,by numbers of total participants including small merchants surveyed at three times

	(Bad communication)	(Good communication)	(Highest Potentia)
	Rainy Season	Dry Season	Just before Eid Festival
	(August 17, 1994)	(January 7, 1995)	(February 26, 1995)
Person (No.)	1,946	2,941	4,198
Villages (No.)	32	34	43
Buying capacity (Tk. 10 per person) per month	2,000 person Tk. 10 4 hat Tk. 80,000	3,000 person Tk. 10 4 hat 1,20,000	4,000 person Tk. 10 4 hat Tk. 1,60,000
Difference	Tk. 40,000	Tk. 40,000	Tk. 40,000
Per season	Tk. 4,80,000 (6 months)	Tk. 7,20,000 (6 months)	Tk. 9,60,000 (6 months)
Seasonal loss per year Tk. 2,40,000			

Table 6 indicates that the potential income forgone per season from hat per year is estimated roughly at Tk.2,40,000 due to bad road communication and poor hat facility. The maximum potential of Dakshin Chamuria hat is considered on participants of hat just before Eid. If we develop the hat to the maximum potential, volume of trade transacted can amounted to be double of the rainy season. During the rainy season, the works namely Biri, Handloom, Agricultural labour decreases due to the weather condition. Therefore, the hat is the only facility to the poor which offeres opportunity of income generation by selling something or transporting goods. Like the credit/loan programme, the hat development programme must be given top priority for poverty alleviation in rural Bangladesh.

The small capitalist investing their capital in some enterpresis is much observed in Dakshin Chamuria village. And if the hat and road is developed, the potential enterprenuership among the poor will be encouraged. Therefore, the capital formation by credit/loan programme or self-savings is likely to increase significantly in Dakshin Chamuria.

One of the necessary economic conditions to stimulate entrepreneurship among the villagers is "infrastructure" and another is "capital". And the other essential human condition is the self reliant behaviour to have accountability of a person for his business. According to our observation, roughly more than half of the poor select the way of small investor like "small capitalist" in the village if they get the money from credit or savings. And so the savings habit must be encouraged in rural development programme to support the village entrepreneurs by the own capital resources. The flow of investment from the poor to the entrepreneurs must be highlighted in the strategy of Bangladesh Rural Development Programme. This informal flow must not be stopped by any Government policies. To encourage this habit of self-saving and investment, we established the village post-office in March, 1994.

The post office has fulfilled the objective of a bank in the village. We describe the banking performance of our post office in Table 7.

Table 7. Deposit, withdrawal and total savings of the village post office in May, 1995 since 20 March, 1994.

Number of Savings Account	Deposit in May (Tk.)	Withdrawal in May (Tk)	Total Deposit (Tk)	Total Withdrawal (Tk)	Total Savings (Tk)
358	36,145	16,295	2,89,249	1,22,360	1,66,889

As shown in Table 7, the banking performance is quite well in comparison with other post-offices. According to our observation, one reason is that the small entrepreneurs like cloth merchants regularly visit the post-office to save their money for security. At present, this activity is very much

Mr. Md. Shafiqul Alam, Deputy Postmaster General-in-Charge, Tangail speaking in the opening ceremony of a branch post office at Daskhin Chamuria, Kalihati, Tangail

popular among the villagers. So far we are informed, about 20 informal savings groups in Dakshin Chamuria and the surrounding villages which are organized by villagers themselves as well as by NGO namely G.U.S.T, have opened their group account with the village post office. The village post office seems to play a part of so called audit to these informal saving groups. The regular weekly deposit habit surely prevents the mismanagement of their savings money. The villagers do not hesitate to visit the post office like bank in the town, because the post-office staff are neighbours of villagers. Banks in town has the wall in terms of distance and unfamiliar staff, who might behave like "officer".

The government must use the village post office as a "Savings Bank" and must recognize the savings of the villagers as a fund to make the infrastructure in the village. This will bear full responsibility to innovate the new system in the revenue in relation to the postal department.

It is self-explanatory that an increase of the entrepreneurs may increase the opportunity of employment to extend their business. We are experimenting with this approach in the embroidery training programme for 30 poor and active women.

The training is scheduled for about two and half hours in morning and afternoon of every weekdays at the office room of the Village Committee. On the request of the trainees, 30 minutes adult literacy programme is conducted by the trainer and female JSRDE village staff before starting the main training. The trainer, who comes daily from Tangail town by a bus is a young woman who has been trained by BRDB MSS at Tangail Sadar under the supervision of a JOCV female instructor.

We do not give allowances such as TA and DA to trainees. Of course the trainees are from Dakshin Chamuria and so TA is not necessary. However, DA may be considered but it

is not provided in order to encourage the eagerness and accountability of the trainees. This programme has started since April, 1995. Therefore, this is still uncertain, but JSRDE is trying to link these 30 women to the entrepreneurs of cloth merchant. At present a few offers have been made to the JSRDE village office. We hope this linkage will be implemented before the project closes in December 1995.

Acknowledgement

We thank specially our JSRDE Village Staff led by Mr. Akkel Ali (Village Manager, Tangail), Shahadebpur Union Chairman and Members, Dakshin Chamuria Village Committee Chairman and Members, Government and NGO Assistants of Support Service and so many villagers of Dakshin Chamuria and Shahadebpur Union for their dedicated cooperation to our attempts.

8.1.3. Discussion on the papers

After presentation of the papers the session was open for discussion by the participants. The participants including village representatives actively participated in discussion on the papers through questions, seeking clarifications and putting suggestions. The following issues are highlighted in the session.

(I) Aira

(a) In Aira village homestead gardening is contributing lot in poverty alleviation of the villagers, nutrition intake by the members of the family and bringing additional income for the family.

(b) The approach of intervention in the village is "outreach" through community participation.

(c) In decision making process, "Shamaj" or "Gusti" influence is visible.

(d) In hat development and repair of village roads participation of the villagers is found encouraging.

(e) Hat has contributed lot in economic activities of the villagers of Aira as well as those of neighbouring villages.

(II) Daskhin Chamuria

(a) Community approach is more effective.

(b) Linkage of the village institution with the Union Parishad and Service delivery mechanism of the GOs and NGOs are becoming a model for rural development.

(c) Para road construction by the project intervention and villagers' participation is proved feasible.

(d) Union Tax collection and its use for infrastructure development is possible.

(e) Infrastructure development increased the mobility of the villagers to the growth centres and nearby town as well as visits of the NBD staffs to the villages more frequent.

(f) Post Office savings are playing vital role in encouraging the people to save within their limited resources and it can be utilized by the Government for development purposes.

(g) Para dwellers can be grouped into a more cohesive group rather than village dwellers.

(h) The model can be termed as "Community Development Model" rather than "Rural Development Model".

(i) Question was raised whether village leaders represent the total villagers and safeguard their interest.

(II) Another point was raised whether postal savings programme is feasible in all the villages of Bangladesh.

8.2 Business Session - 2

Dr. M. solaiman, Director General-in-Charge, Rural Development Academy, Bogra was the Chairperson in this session. Mr. Md. Mazharul Islam, Specialist Institution Building, JSRDE project, Dr. Muhammad Salim, Associate Professor, BAU and Dr. Kazuo Ando, Long Term JICA Expert, JSRDE project were the rapporteurs. Three papers were presented on Panchkitta, Austodona and Fanishair respectivly. Paper on Panchkitta was jointly prepared by Dr. K. Usami, Short Term JICA Expert, JSRDE project and Mr. Mizanur Rahman, Asstt. Director, BARD, Comilla. Mr. Mizanur Rahman presented the paper on Panchkitta. Paper on Austodona was jointly prepared by Mr. K. Yajima, Long term JICA Expert, JSRDE project, Mr. Swapan Kumar Dasgupta, Deputy Director, BARD, Comilla and Mr. Md. Mazharul Islam, Specialist Institution Building, JSRDE project. The paper was presented by Mr. Swapan Kumar Dasgupta and Mr. K. Yajima. The paper on Fanishair was jointly prepared by Mr. A.K.M. Obaidullah, Regional Project Coordinator, JSRDE Project, Comilla, Mr. Masudul Hoque Chowdhury, Deputy Director, BARD, Comilla, Mr. S. Mukai, Short Term JICA Expert, JSRDE project and Mr. K.L. Maharjan, Member of the Japanese Team. The paper was presented by Mr. Masudul Hoque Chowdhury, Deputy Director, BARD, Comilla. The relevant papers are given in the following pages.