STRATEGIES EVOLVED IN A DEVELOPMENT SYSTEM OF PLANNED SOCIAL CHANGE IN RURAL EAST PAKISTAN: A STUDY OF THE PROCESS OF INSTITUTION-BUILDING AND ITS INTEGRATION IN THE POLITICO-ADMINISTRATIVE STRUCTURE

By

Abdul Muyeed

This thesis analyzes a program of planned social change with an inter-disciplinary approach. The program evolved through ten years' intensive experimentation by the Pakistan Academy for Rural Development (PARD) at Comilla in East Pakistan.

The PARD evolved a role for itself as an intermediary between the government and the people. It developed programs with the people of local communities in the Comilla thana,¹ a "social laboratory" of 107 square miles with a population of 200,000. The PARD in its "social laboratory" experimented with many "pilot projects" for program-building to maximize development within the area. These experiments provided rich materials for the training of the government officials. As models of administration in actual situations, these experiments also assisted national policy-makers to gain insights for planning. The experience of these pilot projects initiated a process of institution-building in the Comilla thana. These institutions are integrated in the politico-administrative structure when the government accepts the program for large-scale implementation. The jurisdiction of the PARD "social laboratory" is defined as a micro-system for the purpose of analysis. The system beyond that up to the national level is defined as the macro-system. The PARD has put itself into a unique position to link the macro-level planning with the micro-level planning working both ways, up and down.

The problems examined in this study are:

- The socio-economic preconditions of the local communities involved in the program.
- The process of social change as understood from the study of various strategies evolved in the system.
- 3. The PARD role in the process of building institutions in the micro-system and their integration in the politico-administrative structure involving the macro-system.
- 4. The factors underlying the developmental processes in the local communities and their implications for strategies.

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Two types of data were collected. The first involved making detailed inventories of the significant events in chronological order of the following:

- 1. Four village cooperatives
- Three other organizations playing roles in the development process
- 3. Six development projects

Case studies were also prepared on each item on the above list except two projects. Intensive field interviews and observations were made in addition to the inventories in connection with the case studies.

The second type of data were collected on thirtyfive village cooperatives, the main vehicle of change in the villages, selected on a purposive stratified random sampling basis. The data covered more than 500 variables assumed to have some relationship with the evolving development processes at village level. A factor analysis was conducted.

The various strategies evolved are discussed under the headings: (1) Socio-psychological strategy, (2) Sociopolitical strategy, (3) Socio-economic strategy, (4) Educational strategy, (5) Sociological strategy, and (6) Scientific strategy.

The process of institution-building and integration in the system is discussed in two steps. The first step is the development of functions and its consequent impact

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in developing appropriate structures needed for efficient progression of development within the micro-structure. The second step consists in developing the PARD role in integrating these institutions in the politicoadministrative structure projecting itself in the macrosystem.

Simple schematic presentations of the micro-macro interlocking processes of development planning are provided.

Thirteen factors underlying the developmental processes at village level are identified. In light of these factors, the emerging trends and their implications on the strategies and program-planning are discussed.

The PARD's new functions and roles are also indicated.

A number of research hypotheses have been generated in this study which need testing. There is a significant implication of these hypotheses on future program-building.

¹The smallest administrative unit of the government, similar to a county in the U.S.A.

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ii

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iii

TABLE OF CONTENTS

													Page
A CKNOWL	EDGMENTS	• •	•	•	•	•	•	•	•	•	•	•	ii
LIST OF	TABLES.	• •	•	•	•	•	•	•	•	•	•	•	viii
LIST OF	FIGURES	• •	•	•	•	•	•	•	•	•	•	•	x
Chapter													
I.	INTRODUC	TION.	•	•	•	•	•	•	•	•	•	•	l
	Purpo State Brief Scope	ment Desc	of t ript	he F ion	rot of	lem the	Pr	ogr	am	•		• • •	1 3 4 13
II.	THEORETI	CAL F	RAME	WORK	ζ.	•	•	•	•	•	•	•	16
	Econor Inter W. W. Eve J. La: Planne	searc mic M disci W. R Arth erett A. P sswel sswel lemma oblem	h. odel plin osto ur L E. onsi l an rate s of	s. ary w. ewis Hage oen d Hc gy Dev Mac	Mod en olmb relo	iels		Pol	icy	•	•	• • • • • •	16 19 20 24 26 34 35 37 38
III.	METHODOL	OGY	• •	•	•	•	•	•	•	•	•	•	43
	Sar		etho of g .	ds a the	nd Met	hod.	s U	sed	•	•			43 47 49 55 60

Chapter

IV.	SOCIO-ECONOMIC BACKGROUND OF THE COMILLA	
	COMMUNITIES	64
	Socio-Economic Preconditions of the	
	Communities Involved in the Comilla	
	Program	64
	Village	64
	Economic Conditions	70
	Social Conditions	78
	Education	82
	Education	85
	Special Barriers to Development	86
	Continual Disinvestment	00
	Lack of Incentives and Profitability	0.0
	in Agriculture	88
	Lack of Infrastructure	89
	Psychological Inhibition	89
	Lack of Participation with Local	
	Self-government	90
	Lack of Effective Administrative	
	System	90
	Lack of Women's Participation	91
	Increase of Population	91 91
	Some of the Social Aspects Shaping an	2
	Emergent Change-Process	92
	Emergent change-rrocess	92
ν.	THE COOPERATIVE PROGRAM	94
	mongition from a Semawhat Clagad System	
	Transition from a Somewhat Closed System	94
	to an Open System	94
	Brief Description of the Cooperative	0.5
	Program	95
	Cooperatives and Membership Sizes	96
	Capital Formation	104
	Loan Program	111
	Projects of the Village Cooperatives.	122
	The Kotwali Thana Central Cooperative	
	Association (KTCCA)	134
	Various Projects Reinforcing	-3
	KTCCA Objectives	138
	Ŭ	
VI.	STRATEGIES OF THE COMILLA PROGRAM	147
	Introduction	147
	Socio-Psychological Strategy	149
		747
	Group Approach: Village Council vs.	140
	Special Interest Groups	149
	Organizer System	153
	Group Meetings	163

Chapter

	Socio-Political Strategy	164
		165
	Development of Mutual Interest	L69 L72
		181
		182
		183
		192
		198 199
		200
	Role of the Experts and Research	
		203
		204
		207
		•
VII.	INSTITUTION-BUILDING AND ITS INTEGRATION	
	IN THE SYSTEM	212
		212
	Institution-Building in the Micro- System.	213
	The PARD-Role in Stabilizing the	11)
	Institutions Developed in the	
	Micro-System	222
		236
	Intermediary Between the People and	
		236
	0	240
	Interdepartmental Approach 2 Schematic Presentation of the	:40
		246
	Schematic Presentation of	
	Institution-Building 2	248
VIII.	FACTOR ANALYSIS ON THE COMILLA COOPERATIVE	
	DATA	252
	Introduction	252
	Rotation of Factors by Varimax	
		254

Chapter

•

	Ide Fir	Ana nti ndin	lys fic gs	is ati of	on on the	the of Fa		omil Fa or A	la ictc nal	Dat ors .ysj	a		• • •	• • •	256 262 287 295
IX. SUN	MMAR	Y,	DIS	CUS	SSIC	N A	AND	CON	ICLU	ISIC	ΟN	•	•	•	297
	The	ore	tic	al	Bac	kgı	udy cour	nd	•		lla	•	• • •	• •	297 299 301
		Pro Soc Soc Soc Edu Soc Sci	gra 10- 10- cat 101 ent	m psy pol ecc ior ogi ifi	chc iti nom al .cal .c S	log cal ic Str Str	sica Str Str rate crate	il S rat ate gy egy y	tra egy gy	teg		• • • •	• • •	• • • •	303 304 305 306 307 308 309
		in	the	Sy	ste	m	•	•	•	•	rat .ope	•	•	•	310
		the	Mi	crc	-sy	ste	em	•	•	•	.ons	•	•	•	311
	Fin	the	Po gs	lit of	ico the	– Ac Fa	lmir acto	ist r A	rat nal	ive ysi	e Sy	ste	•m	•	312 314
	PAR	Coo D's	per Ne	ati w F	.ve 'unc	Pro tic	gra	.m .nd	Rol	e	•	•	•		316 319 321 322
BIBLIOGRAPH	łΥ	•	•	•	•	•	•	•	•	•	•	•	•	•	324
APPENDICES	•	•	•	•	•	•	•	•	•	•	•	•	•	•	328

LIST OF TABLES

Table		Page
1.	Distribution of families (in percentages) over various land categories taking all the sample villages together	71
2.	Distribution of families (in percentages) over various income categories taking all the sample villages together	74
3.	Occupations ranked according to prevalence within the various income categories	77
4.	Functional literacy among the villagers	83
5.	Primary schooling among the villagers	84
6.	Number of cooperatives and membership size in various years (figures are all cumulative from year to year)	97
7.	Average size of membership per cooperative according to parent and sample data in various years	100
8.	The average number of members per coopera- tiveold, intermediate and new	103
9.	Annual savings, share purchases, and capital formation by all the cooperatives under the program (figures are all cumulative from	105
	year to year)	105
10.	Average per member capital formation in the sample cooperatives in various years	106
11.	Position of loan disbursement, loan repay- ment, amount of outstanding loan and total capital accumulated by the cooperatives in various years	112

Table

LIST OF FIGURES

Figure		Page
1.	Ponsioen Model	31
2.	Interview Plan	53
3.	Stratified Random Sample of Village Cooperatives	60
4.	Patterns of Project Planning	128
5.	Structural and Functional Dimensions of Comilla Cooperative System-1968	137
6.	Intermediary Role of the PARD	238
7.	Direct-Relationship Pattern between the People and the Government	238
8.	Program-building Process at Different Phases of Development	247
9.	Program-building Process with Ever-widening Program Frontier	248
10.	Institution-building Process	250

CHAPTER I

INTRODUCTION

Purpose of the Study

The Comilla program has come to the present stage through ten years' intensive experimentation on a program of planned social change. The main thrust of the Comilla program is primarily being generated by an institution named The Pakistan Academy for Rural Development (PARD). When first established in 1958, it was one of two institutions set up for each of the wings of Pakistan, in connection with the Village Agricultural and Industrial Development (Village-AID) program of Pakistan. The Village-AID program was the first comprehensive national program of community development undertaken by the government. The PARD continued even after the dissolution of the Village-AID program in order to train various officials for development work, to conduct action research and pilot projects with the local government and communities and to present models of development administration to government policy-makers. There have been numerous studies on various aspects of the Comilla program, but in none of the studies has major effort been made to

look at the whole program as a system. In view of the comprehensive growth of the program and its impact both on the national and regional (macro) structure and socio-economic development of the communities (micro) at local levels, it is time to study the program in its total perspective. The study will help the understanding of the program as a social process of development.

There are many studies on the role of the change agents which focus attention on the relationship between the change agents and the people, or the government and the change agents, or the government and the people where the government takes somewhat of a role of a change agent. But the Comilla program is differently geared into the situation which has given it a unique significance as an intermediary between the people and the government with its planning mechanism. It works all the way both up and down, developing the microsetting in relation to the macro and pointing to the deficiencies in the macro-setting in relation to the micro. In most of the studies available on planned social change, there seems to be a polarization of interest, either to the macro or to micro-setting. As a result, there are some brilliant models of planned change drawn from broad generalizations in the macro level. There are also numerous successful projects

implemented and studied more or less in an isolated manner, focusing only on the particular project within the total system. This study of the Comilla program intends to analyze the social processes of development in the micro-setting and their consequent impact on the macro-setting. This kind of analysis, supplemented by other case studies, may help towards formulating middle range theories of planned change.

Statement of the Problem

It is not proposed to test any particular model of planned change in the Comilla context. Since this is the first work of this type on the Comilla program, as complex as it is, the primary interest will be to understand the Comilla program as far as possible with a historical perspective, so that one may discern some of its intricate but pervasive underlying principles at work. Since there is a time-depth of about ten years, it may also be Possible to observe the developmental progression in this particular context. So in specific terms, the statement of the problem for this thesis is to study:

1) The socio-economic preconditions of the local communities involved in the Comilla program.

11) The process of social change as represented by the various strategies evolved in the particular context of the socio-economic preconditions of the communities.

iii) The role of the PARD in the process of building institutions in the micro-system and their integration in the politico-administrative set-up involving the macro-system.

iv) The important factors underlying the development process in the local communities involved in the Comilla program and the shaping of the future trends as revealed by the analysis of the data.

Brief Description of the Program

The Pakistan Academy for Rural Development (PARD) at Comilla in East Pakistan, in close collaboration with the Ford Foundation and the Michigan State University, developed an educational program in one of the most problem-stricken areas of South-East Asia. The special feature of the Comilla program is that it is an experimental project within a "laboratory area" of 107 square miles covering one <u>thana</u>,¹ named Comilla <u>Kotwali Thana</u>,² with a population of more than 200,000-a rare example of experimentation in development planning and administration.

¹The area of jurisdiction of a police headquarters, similar to a county in the USA, which is also the smallest administrative unit of the government. There are 413 thanas in East Pakistan.

²The thana located in the sub-divisional headquarters is called Kotwali Thana. There are 54 Kotwali Thana's in East Pakistan.

The PARD, in developing its training, research, and extension programs, consciously tries to focus its attention on understanding the local problems in local perspectives, to develop programs with local initiative, create an environment of education for the people, their leaders, and the officials by bringing them together to discuss and explore, and ultimately to integrate the programs and the educational processes thus developed into higher level departmental programs and national planning. In doing so, the Comilla program has sometimes adjusted to the departmental or national plans. It has also given birth to quite a few new ideas and methods through its pilot projects and action research, which in turn have given shape to new policies and plans at national levels.

The PARD has the advantage of funds from the government budget, Ford Foundation and other various agencies, and autonomy to conduct experiments at local levels in administration, management, and resource development. It is placed under a Board of Governors, chaired by the Chief Secretary with members consisting of the heads of most of the important departments concerned with rural development and some non-official citizens. It is also ideally located away from the humdrum of the official machineries of the provincial capital in a highly populated semi-rural district town

within the Comilla Kotwali thana. In its process of being helpful in rural development efforts, it has developed some new institutions, some new functions in old institutions, a system of coordination and a commitment to development at local levels with great potentials of expansion at higher levels.

The PARD, though primarily a training institution, started extension programs and action research in its laboratory area of the Comilla Kotwali thana. The idea in doing so was not to develop into a servicing agency, but to understand rural development problems and their possible solutions and to discover administrative and management patterns for efficient functioning. This program comprising of teaching, extension, and research was designed to enrich its training courses as well as to enable it to help the government in planning for rural development by providing various models at the thana level.

The PARD developed a cooperative program in the thana having more than 300 primary village cooperatives with a central association at its apex, named Kotwali Thana Central Cooperative Association (KTCCA). The primary cooperatives are all village-based small homogeneous groups of either farmers or artisans, including wage-earners. The activity base of the

primary societies was determined by ten conditions imposed on the members:¹

i) To get the society registered and join the Federation.

ii) To hold weekly meetings at the village with compulsory attendance of all members.

iii) To make a regular weekly thrift deposit in their bank accounts and buy shares.

iv) To keep proper and complete accounts.

v) To select a trusted man from the group for weekly training at the Academy.

vi) To select an energetic farmer from among themselves for training at the Academy as a model farmer.

vii) To prepare joint plans for production and use of machines from the central association.

viii) To use supervised production credit.

- ix) To adopt improved practices.
 - x) To hold regular member education discussions.

These cooperatives were mostly producers' cooperatives and were used as a vehicle to modernize agriculture and cottage crafts by imparting improved skills, providing credit, encouraging capital formation through savings, and organizing other facilities on a

¹Akhter Hameed Khan and A. Aziz Khan, <u>Comilla</u> <u>Cooperative</u>, Part II (Comilla, East Pakistan: PARD, 1969), p. 6. (Mimeographed.)

cooperative basis. Introduction of high investment programs like power irrigation, third crops, new highyielding rice varieties, and new varieties of vegetables has been possible only because of these organized groups of interested people. The development of the KTCCA was made possible by government funds (mostly as loans) and a grant from the Ford Foundation under a scheme entitled "Introduction of Mechanized Farming on Cooperative Basis in Comilla," which is providing the following services and supplies to the primary society:¹

1. Banking and supervised credit.

2. Agricultural extension and training (with the assistance provided by the thana level government officers and the Academy).²

3. Machine shop services and skill training.

4. Water development, irrigation and electrification in conjunction with EPWAPDA³ and Thana Council.

5. Processing and marketing to integrate with production and credit.

6. Home development through a Women's program.

⁵East Pakistan Water and Power Development Authority.

¹<u>Ibid</u>., p. 7.

²With the exception of research, the Central Association is now almost wholly independent of the Academy.

7. Adult literacy and children's education through $\underline{\text{imam}}^1$ teachers' program and youth clubs.

Later, the two groups, agricultural and nonagricultural, were federated separately under the two constituent parts of the KTCCA, named respectively as Agricultural Cooperative Federation (ACF) and Special Cooperative Societies Federation (SCSF). As the program evolved, the KTCCA established cold storage units, a creamery, poultry unit, and a rice mill to help solve some of the urgent storage and marketing problems and further to increase income. These units have recently been organized as a third major federation of the KTCCA under the title of "Comilla Industrial Cooperative Federation" (CICF) (yet to be officially registered). This Cooperative program, evolved through a pilot project of the PARD, has now become a model for the government plan introduced in ten other thanas.

Another major pilot project undertaken by PARD was designed to improve the effectiveness of local government on the thana level and the Basic Democracies system. This pilot local government program was designed to complement the socio-economic program of the KTCCA. A major aspect of this program centered on

¹Imam is the religious leader who conducts prayer in the mosque. The particular program involves the imam in teaching children religion and secular subjects in the first and second grade standards.

the utilization of available PL-480 funds to finance a public works program which was designed initially to help solve three major problems of rural development:

1. To relieve widespread rural unemployment.

2. To clear channels for the purpose of reducing floods and improving water utilization.

3. To build rural roads to facilitate communication and marketing.

The plans for the rural public works program were drawn up by committees of the union councils¹ and consolidated by the thana council for administration of the program. PARD takes on the training and research arm of the Department of Basic Democracies and Local Government which took over administration of the public works program, after the initial demonstration, on a provincewide basis.

The successful patterns of training of key personnel involved in the work of the KTCCA (Manager, model farmers, etc.), and personnel involved in the thana development program of the Department of Basic Democracies and Local Government--especially in the public works program (government officers, members of union and thana council committees, etc.)--formed the

¹The union council is the lowest tier of the Basic Democracies system. There are twelve union councils under the jurisdiction of the Comilla Kotwali Thana Council.

basis for formalizing the organization of the Thana Training and Development Center (TTDC). The TTDC pattern was adopted by the government of East Pakistan shortly thereafter as the basic organizational pattern for rural development throughout the province.

After the thana administration plan had functioned for a couple of years in Comilla and a few other thanas, it was found that some kind of reorganization was necessary in the district level of administration. So, the PARD, which for a long time had confined itself only to the level of its laboratory jurisdiction, i.e., the micro-level (as has been defined later), began thinking how to devise a reorganized integrated district rural development plan which would be compatible with the system evolved from the bottom and overall policies of the government. As a result, a plan was made which was later accepted by the government. The Comilla district, one of the seventeen districts in the province, was put under the new experimental plan to be covered in phases in a period of 5 years. The PARD assumed an advisory role with district administration and remained responsible for training all officials at various levels.

The evolution and implementation of those programs ^{may} sound very simple and easy as they have been described ^{here.} But one can easily imagine the complexities in such efforts, where the system is almost frozen by century-old

traditions guarded by an army of highly bureaucratic officials. These are some of the major projects by which the PARD has been able to influence administrative policy from a system evolved from below. But there have been many other projects undertaken by the PARD in the Comilla area which have not yet been accepted and integrated in the larger politico-administrative system. Some are still under observation and others have been accepted either partially or in a modified manner. Without going into detail, the names of some other projects of the PARD may be mentioned--Family Planning Program, Women's Program, School Works Program, Youth Program, Imam Teachers' Program, Adult Education Program, Thana Irrigation Program, etc.

By working through all these projects in collaboration with the people and the government departments, the PARD has developed a role of intermediary between the people and the government. The PARD, through the publication of its research findings on the basic problems of rural development, and the evaluation reports of its ongoing projects, has gained a specialization in rural development which is being recognized and appreciated by the government. There was no other institution previously to which government could look for guidance in planning rural development. The PARD is increasingly playing its role in many of

the regional and national coordination meetings and policy level committees. Recent seminars, workshops and conferences held in the PARD on various aspects of rural development show more serious interest on the part of the technical experts working on various levels in the government hierarchy.

The blueprint of the Comilla project as it has been indicated above was not drawn at once nor has it yet been completed. In fact, as an institution devoted to experimentation, theoretically it should never be "completed." It develops gradually, bit by bit, as the interacting forces play their roles in the social and human laboratory of the Comilla thana within a given socio-political and administrative environment. So, it has been possible for the program to maintain its unique indigenous character, which was the essential factor in making it highly pragmatic, workable, efficient, and meaningful.

The details of its functioning will be discussed in analyzing its underlying principles and drawing linkages into various activities and functions later in appropriate places.

Scope of the Present Study

The PARD is a provincial institution with the primary responsibility of training government officials in matters of rural administration. It was not within

the jurisdiction of the PARD to decide the general policies of training of government officials as such. It was not even in the picture to guide national planning for development on the macro-level. However, it was given as much freedom as was necessary to evolve a program of rural development through experimentation in a "small thana laboratory." The main purpose was to develop models of administration which could enrich the training courses of the officers. It was also felt that the PARD could take up pilot projects in the small laboratory area and develop proper institutional structures compatible with the already existing infrastructure and study the socio-economic and administrative feasibility of these projects for expansion in other areas. It has already been discussed that some of these pilot projects have been adopted for multiplication. This developed a vital role for the PARD as the "hatching ground" of ideas with detailed documentation and searching questions which prove invaluable to the planners.

This process developed the role of the PARD as an intermediary between the government and the people, and this role has put the PARD into a unique position enabling it to link the macro-level planning with the micro-level planning. But, of course, its direction is mostly from "micro" to "macro."

The scope of the present study exactly coincides with the scope of the PARD in its role in development planning. So the concentration will be more on the micro-level which extends up to the limit of a thana to study the development processes and strategies within it. Then a further attempt will be made to explore how these processes in the micro-setting influence the macro-setting, and what the process of linkage is between them. The PARD's role fortunately coincides with the generally weakest point in the whole development process as has been indicated in the next chapter. It is believed that this particular study which may be identified as a type in a typology, will shed light on the formulation of middle-range hypotheses and theories.

CHAPTER II

THEORETICAL FRAMEWORK

Review of Current Literature and Research

The literature dealing with problems of development in the developing countries of the world has become quite substantial during the last decade. The subject is now being enriched from various research projects undertaken in numerous countries in Latin America, Africa and Asia with varying cultural backgrounds and with varying emphasis on contents and processes. These studies are published under such subject headings as Social Change, Planned Change, Economic Growth, Economic Development, National Planning, Development, Institution Building, or in some combination of these and others. Social scientists from disciplines such as economics, sociology, anthropology, social psychology, political science, history, education, public administration, etc., are actively interested in pushing the frontier of knowledge further in this field. But because of the prevailing ethnocentrism within the various disciplines, a gap still remains in these studies, which prevents integration of findings and experiences. The primary

responsibility for developing this field remained mostly with the economists and anthropologists even in the recent past. However short this period may be, the trend of research and publications in development planning and social change indicates a clear change of emphasis. Without any doubt, this change represents the maturity of thinking in understanding and dealing with various factors of development. The emphasis moved from pure short-run economic models to interdisciplinary models which includes long-term socio-psychological factors bearing on the personality structure of the individuals of the nation; and then to models of planning strategy which is interdisciplinary and assumes that the processes involved in development efforts may be hastened. Though all of these models help to understand the various aspects of the development process, and in that they are very valuable, still the stage is for beyond reach where a comprehensive model could be formulated which can be generally applied to all situations.

The development process is essentially an outcome of a complexity of factors. One factor may be highly effective within this complexity, and completely ineffective if it were isolated. Therefore the complexity has to be considered precisely as a whole. This work is done mainly by the few who are brave

enough to present a comprehensive model of the development process. The essence of a development model consists in bringing all really important and determining factors together in a consistent and logical framework, so that their mutual relations and their aggregate impact on development become manifest.¹

But formulating a comprehensive development model is further complicated by the fact that the concept "development" may mean different things to different nations. To some it has a "biological" connotation of growth, blossoming of the potentially latent forces, and to others it is "evolutionistic"--favoring inducement by external forces. Then again whether it is "biological" or "evolutionistic", to frame practical strategies of development planning in a particular country, one must also take into consideration the particular political, economic and social orientation of that country.

Now, some of the models already available will be briefly discussed. It should be clearly stated here that the purpose of bringing the models for discussion is not for any evaluative purposes nor for building any

¹J. A. Ponsioen, <u>National Development--A</u> <u>Sociological Contribution</u> (The Hague: Mouton, 1968), p. 109. Publications of the Institute of Social Studies Vol. XVIII.

The author acknowledges his heavy indebtedness to J. A. Ponsioen, whose references have been extensively used in this chapter.

new model which either integrates or contrasts them. The purpose of this discussion is three fold:

i) To appreciate the rich diversity of thinking in the field.

ii) To understand the need for more penetrating empirical work both in the macro and micro levels analyzing the processes flowing within and between the two levels.

iii) To provide a theoretical frame for the present study.

Economic Models

The most vital and fully articulated bodies of modern economic thought have been developed within Marshallian short-period assumptions; that is, the social and political framework of the economy, the state of the art, and the levels of fixed capacity are assumed to be given and, usually, fixed.

Adam Smith's <u>The Wealth of Nations</u> may be regarded as the beginning of a dynamic analysis of the forces determining change in long-period factors. A strong element of this approach to economic analysis remained within the tradition down to John Stuart Mill. Mill was aware that societies existed where potentially productive forms of investment were not exploited for lack of will or for lack of an appropriate institutional environment. Even Marshall in his <u>Principles</u> gave an extended discussion of long-period factors and of the role of social forces in determining the level of and changes in the productivity of the labor supply and of capital investment. The long-period analysis troubled him because historical developments were not fully reversible. Equilibrium could not be exhibited, as he noted, in terms of a static analysis. Marshall's awareness of the difficulties of dealing with longterm phenomena by means of the techniques that could be neatly applied in short-period analysis, has no doubt contributed to the tradition among economists of dealing with long-period forces on an ad hoc and descriptive basis; or in certain formal structures, of treating them as exogenous to their system. Economic theory, though powerful over a limited range, is not adequate to cope with the world of "organized complexity," of growth analysis. So, we shall concentrate more on understanding the interdisciplinary models.

Interdisciplinary Models

<u>W.</u>W. Rostow

Rostow has developed a broad theory of economic growth using the historical method of analysis by stages. According to him:

Economic growth is the result of an interacting process involving the economic, social, and

political sectors of a society, including the emergency of a corps of entrepreneurs who are psychologically motivated and technically prepared regularly to lead the way in introducing new production functions into the economy.¹

He distinguished the traditional or pre-Newtonian stage of a static economy; the pre-take-off period during which institutional changes in society take place, but not much growth is yet realized; the short take-off period during which a rapid increase in national income is performed; the period of the drive into technological maturity, during which economic growth continues to increase steadily and regularly; and finally the period of high mass consumption in which economic growth is less high, but still steady. For the purpose of this study, his pre-take-off period, the rearrangement of the society conducive to economic growth, is of greater interest. To Rostow, this rearrangement consists mainly in the introduction and acceptance of new institutions, an educational system, expanding markets depending on increasing agricultural production, new forms of commerce, transportation and communication, all facilitated by new monetary institutions, such as banking, new forms of production such as extractive mining and some new occasional

¹W. W. Rostow, ed., <u>The Economics of Take-off</u> <u>into Sustained Growth</u>, Proceedings of a conference <u>held by the International Economic Association (New</u> York: St. Martin's Press Inc., 1963), p. xxiv.

industries. Most important of all is the introduction of an effective government and administration.

The main and direct effect of these new institutions are changes in basic psychological attitudes, which by themselves produce the aptitude to bring about sustained growth. These basic attitudes or propensities, to Rostow, are those concerned with fundamental science development, the application of science to economic ends, the acceptance of innovations and attitudes toward consumption and having children.

Rostow states that:

the take-off must be defined in two steps: first, it is the period in the life of an economy when for the first time, one or more modern industrial sectors take hold, with high rates of growth, bringing in not merely new production functions but backward and lateral spreading effects on a substantial scale; second, for a take-off to be said to have occurred, the economy must demonstrate the capacity to exploit the forward linkages as well, so that new leading sectors emerge as the older ones decelerate. It is this demonstration of the capacity to shift from one set of leading sectors to another which distinguished abortive industrial surges of the transition period from a true take-off.

In the take-off period, the innovational process has ceased to be sporadic and is a more or less regular institutionalized part of the society's life on a scale capable of defeating Ricardian diminishing returns and the Malthusian propensities of the people.²

¹<u>Ibid</u>., p. xviii.

²<u>Ibid</u>., p. xxiii.

A number of criticisms of Rostow's model have been made. Hagen, supporting the views of Kuznets, criticizes the limited content or tautological nature of most of his distinctions between the stages. His second criticism centers around the validity of one quantifiable criterion to judge the take-off. The supposed upward surge in the rate of investment (and presumably also the rate of growth) during a crucial period of take-off, according to him, turns out to exist only in a few countries and not elsewhere.¹ It has become clear, from data accumulated from other countries, that in economic development there is usually no such phenomenon as take-off. Hence the schema of stages must be rejected, though his model presents rich and perceptive suggestions of the changes that must occur, if a country that was traditional is to become technically progressive.² Rostow's model fails to incorporate trends which counteract economic growth and is based on a purely economic viewpoint in identifying social institutions and psychological attitudes.³ However, the merit of

¹E. E. Hagen, <u>The Economics of Development</u> (Illinois: Richard D. Irwin, Inc., 1968), pp. 148-49.

²<u>Ibid</u>., p. 143. ³Ponsioen, <u>op. cit</u>., pp. 111-12.

the model is that it is interdisciplinary. It frames a constellation of dynamic economic factors consistent with sociological institutions and with psychological attitudes as well as showing consistency between the latter two.¹

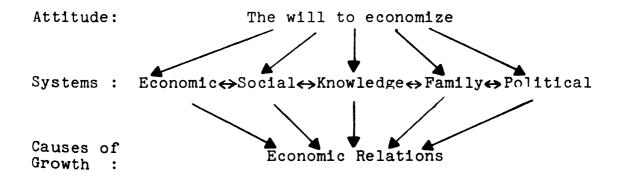
W. Arthur Lewis

Lewis describes a comprehensive set of factors simultaneously and interdependently influencing development in developing countires. These influencing factors are: the will to economize, a value system; the existing economic institutions, such as the division of labor, the patterns of organizing labor, the markets and the system of marketing; the existing social institutions, such as the reward system, the forms of property, social mobility, the religious organization, the family patterns and agriculture as a way of life; the existing cultural system of knowledge, i.e., the growth and spread of knowledge and the institutions of learning; the economic habits of saving, capital transfer and investments, population as economic resources; finally, the political framework, such as international relations, the government and management.²

¹Ponsioen, <u>op. cit</u>., p. 112.

²W. Arthur Lewis, <u>The Theory of Economic Growth</u>, 8th edition (London: George Allen & Urwin, Ltd., 1968).

Lewis studies each of these factors in the light of how they have to change from a past pattern to one that is favorable to development. He emphasizes, however, that they are all interdependent in such a way that advance in one sector, or on every front will bring advance in the others as well. This model may be presented in the following way:¹



The combined and interdependent systems could be called the institutional part of a given culture, or a given situation of a culture, or of a society. The first factor, then, which makes the whole institutional part of the culture move in the direction of economic growth, is that particular change in the value system which makes the value of economic wealth more central, or more predominant over other values: the will to economize. If this value is penetrating each of the institutions more effectively, and if these stimulate

¹Ponsioen, <u>op. cit.</u>, p. 115.

each other in that direction, the effect will be that they are better oriented to productive economic relations, to work, and to effective labor organization, to saving, capital transfer and investment. The key to this model is that in between the will to economize--or the rise of expectations for material welfare--and more effective economic relations are placed the interdependent socio-cultural institutions.

Lewis recognizes that some systems or sectors may be promoted or hampered by other systems in their contribution to better economic relationships for economic growth. But the model does not show where such counteractions are likely to occur. However, the model can become an excellent instrument for the strategy of development, as well as for planning which envisages complementarities (rather than priorities) SO as to reinforce the favorable factors and to keep up with the weaker factors, sectors, or institutions.

Everett E. Hagen

Hagen, an economist, presents an inter-disciplinary ^{model} of social change conducive to economic development in his book <u>On the Theory of Social Change</u>.¹ He took the basic premises in developing the model by asking the

¹Everett E. Hagen, <u>On the Theory of Social Change</u> (Homewood, Illinois: Dorsey Press, 1962)

question, "Why are some countries underdeveloped in the midst of abundant resources of technical knowledge?" His answer is: because the human condition, the required personality structure, is not yet realized. Then he concentrates on the origin of entrepreneurs, because they actually make development. "They are to him not one of the factors, but the proper cause of economic growth. The origin of entrepreneurs, however, is an unintended consequence of a long social process."¹ This model uses elements of sociology, social psychology and psychology and does not contain any economic factor, because once the entrepreneurs are explained, the development process is explained.²

The model of Hagen is an evolutionistic one. It shows how, in the sequence of time, societies produce in successive stages the opportunities for the type of child rearing which by itself is conducive to entrepreneurial attitudes. Entrepreneurship is to Hagen, a matter of personality structure.

Ponsioen in his book, <u>National Development</u>, criticizes this theory.

Misleading in Hagen's theory is his pretension to present an overall model of social change Which produces economic growth whereas he

¹Ponsioen, <u>op. cit</u>., p. 117. ²Ib<u>id</u>.

actually deals only with one of the agents of growth, the economic and technological entrepreneurs (thus excluding the trader). His model could at best be considered as complementary to the others. If, according to Rostow, the propensities of the population have to change by virtue of new institutions, or if, according to Lewis, all systems of life have to undergo changes simultaneously, institution builders and institution leaders are as badly needed in developing countries as technological entre-If finally, one agrees that preneurs . . . the economies of the developing countries are actually all state-supervised economies, one has also to agree that the proper entrepreneurial capacities are as much needed with the administrators as with private individuals, as much on the macro level of the economy as on the micro level of business.¹

However, in his recent book, <u>The Economics of</u> <u>Development</u>, Hagen has elaborated the role of the

government in development planning and execution.

The governmental action will ideally include maintaining favorable institutions, providing appropriate education, opening channels of information, countering the biases of the market, and complementing it by government operation of enterprises. All of these types of action will have important purposes other than the promotion of economic development. With respect to economic development, the first three will be aimed mainly though not solely at maximizing the rate of innovation, and the last two at achieving the optimum magnitude and allocation of resource use. The term 'development planning' is usually used to include not only the planning but also the execution of the relevant measures.

¹<u>Ibid</u>., p. 119. ²Hagen, <u>op. cit</u>., p. 480. However, he maintains, at the end of the same chapter,

Effective governmental planning is not a sufficient condition for economic development. Economic development also requires human qualities that we do not know how to affect. We do not know how to establish in Argentina the degree of social trust that exists in Mexico; how to inculcate among the peoples of Burma the degree of desire for social order that exists in India; how to inculcate throughout all segments of the Indian population the degree of inventiveness that exists among all classes of Japan (though Prof. McClelland thinks that he can increase it in some degree by a short adult training course);¹ how to create in Syria the drive to progress that pervades Israel. But we believe that our understanding of the economic factors at work is clearer than it was even ten years ago.

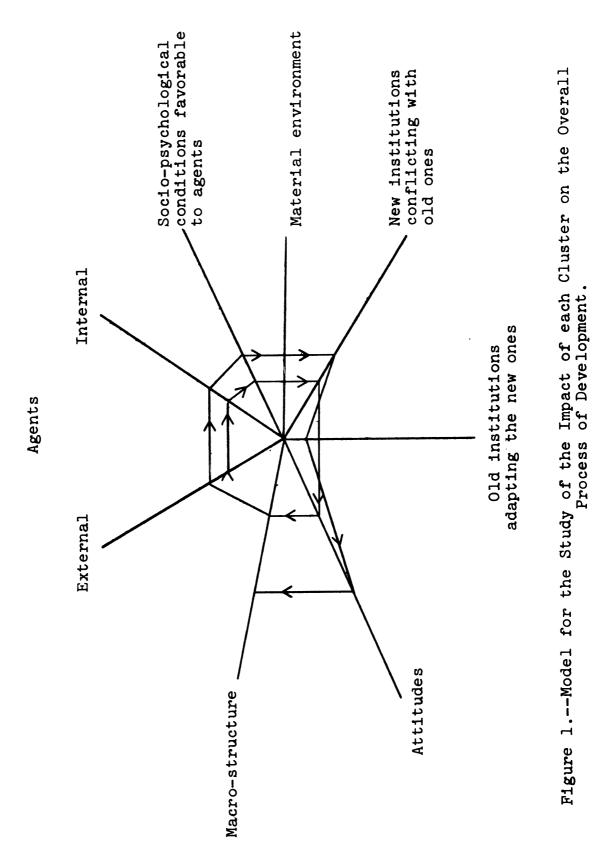
J. A. Ponsioen

Ponsioen developes a model which he presents in his book, <u>National Development</u>, by making use of the various models. The main problems in building models are in making them comprehensive as well as operational for the great variety of development processes including factors counteracting development. However, a realistic model should be one which makes room for differentiation. The general model should indicate where precisely the Possible differentiations lie, and which types of differences exist there. He describes his model as follows:

¹D. C. McClelland and David G. Winter, <u>Motivating</u> <u>Economic Achievement</u> (New York: The Free Press, 1969).

The goals.--Development should be taken essentially as a policy concept, which in reality is different in different societies according to the orientation held by the particular society, namely political, social, or economic. For theoretical purposes it would be interesting if a law could be set up labelling a particular orientation with particular types of societies or a particular sequence of development orientations with societies of a particular history of transition from time to time. In the absence of such a law to guide us, whether political dominance in development orientation precedes the economic dominance or vice versa, the model should remain open to these three different orientations.

The factors.--He suggests that the factors may be reduced to coherent clusters, and the interrelation within and between those clusters should be studied. Five such clusters of factors are considered by him to be paramount: the agents of development; the situation favorable to these agents; the institutions, acculturating and conflicting; the attitudes formed by these institutions; and the social macro-structures in which these attitudes can operate. The model is presented diagramatically on the following page.



The agents of development.--The agents of development fall into two categories: external and internal. International development agencies and foreign assistance agencies, whether public or private, are the external ones. The internal agents are many--entrepreneurs (Hagen), progressive farmers and the middle class (Heinz, in his sociological model of "complex modern society"), government and economic planners, etc.

The situations favorable to agents.--By situations he means those factors which stimulate the agents to act. They may be both the socio-psychological conditions faced by the agents and the existing material environment. One should not deduce from these considerations that the environmental factors are to be ready before the actors can operate. The agents are as much producing their proper situation as they are dependent upon it.

The institutions, acculturating and conflicting.--The institutions are the core of the model. Actually they form two or three clusters: the old or traditional institutions, the new institutions being themselves part of development, and the interactions between the old and the new institutions. Institutions are the breeding ground of attitudes. In a situation of development, old institutions persist and new institutions are introduced, their mutual relations being at the same time conflicting and acculturating. It can be stated as a general rule that

there are at the same time relations of conflict and acculturation between the new "organizational" institutions and the past "cultural" institutions. The positive function of the overt conflict makes it clear in practice that choices have to be made and decisions about the adaptation of new cultural patterns have to be taken by all groups. This clearing-up of the situation may very well speed up the development process.

The attitudes. -- The social institutions provide first of all regularity in inter-individual behavior. They also gear the minds of people to future behavior. They implant attitudes. On the other hand, the functioning of the new institutions requires the "right" attitudes. Attitudes are a variable on their own in a development model. As such Ponsioen believes with Hagen and McClelland that for development, however defined by the agents and in whatever social system, a creative attitude, an achievement attitude among the **Population, a will to shape their own lives, to take** their destiny into their own hands, is essential. It may be called an entrepreneurial attitude, provided this expression is not restricted to the economic sector and does not suggest conspicuous performances. Neither should entrepreneurship be restricted to a free enterprise type of society.

The macro-structures.--Another decisive factor which prevents or allows the circle to be expanded by deliberate policies is the macro-structure. One cannot diminish the importance of the macro-structure on the hypothesis that good people formed by good institutions will operate well in whatever structural setting they happen to be.

So the model starts with the agents and moves on a time scale through interactions with the various factors in a chain process.

Lasswell and Holmberg

There are numerous other models and it is neither possible nor the purpose to discuss them all. However, an attempt by Harold D. Lasswell and Allan R. Holmberg in providing a paradigm designed to be sufficiently general in scope to accomodate any and all human activity for social change and economic development in their paper, "Toward a General Theory of Directed Value Accumulation and Institutional Development,"¹ may be mentioned. It is quite stimulating and novel in its approach. The criteria may be summarized as principles of guidance in performing the intellectual

¹Harold D. Lasswell and Allan R. Holmberg, Foundation for Research on Human Behavior, Comparative Theories of Social Change, ed. by Hollis W. Peter, November, 1965. pp. 14-50.

tasks of problem solving in reference to directed social change. The intellectual tasks are clarification of goal, the discovery of salient trends, the progressive analysis of conditioning forces, the projection of futures, and the invention, evaluation and commitment to value-maximizing policies. Social change is a process in which participants seek to maximize net value outcomes (values) by employing practices (institutions) affecting resources. They use value not as a yardstick, but in a special, restricted sense to mean any one of at least eight general categories of social commodities sought after by individuals in any society. The model is a complex multivariate one.

Planned Strategy

Most of the models discussed above depend on long-term intended or unintended consequences of various social processes. With the worldwide wave of rising expectations, the newly born developing countries are becoming impatient to break their chains of poverty outright. This desire is both politically and morally justified though not sufficiently backed by scientific methods. The idea of planned strategy for development started from the Russian example. But it has gained new significance in the last two decades.

Most of the developing nations are ready to adopt some kind of planned strategy to hasten the development process in order to attain at least the minimum standard of living for all its population and if possible, to bridge the ever-widening gap of per capita national income between them and the advanced countries. Practical strategies and plans have been proposed based on the underlying assumption that societies may be developed at a much faster rate than is generally conceived. The planned strategy asserts that the appropriate attitudes and, more importantly, the appropriate behavior will be forthcoming, once opportunities and incentives are provided. Value changes may follow, not precede behavioral changes, and may therefore not be a prerequisite for modern economic or political behavior. This notion is now being backed by the proponents of the cognitive dissonance theory, ¹ which hypothesizes that when there is an inconsistency between the behavior of men and their values, it is often the values that change. So strategies may be developed to facilitate development, not by a frontal attack upon values, but by a frontal attack upon institutions and structures that reduce incentives and opportunities and by

¹L. Festinger, <u>A Theory of Cognitive Dissonance</u> (Stanford: Stanford University Press, 1957).

supporting those institutions and structures which increase them.

Dilemmas of Development Policy

In spite of the fact that development processes can be hastened, the level of per capita incomes in the underdeveloped countries can be raised only when some of the painful choices which are involved have been squarely faced: (1) There is the problem of choice between a higher level of consumption now and a higher rate of growth in income in the future. Other things being equal, the higher the target rate set for future growth, the greater the sacrifices in the form of a lower rate of increase in consumption at present and/or the longer the period of waiting before the fruits of economic development are available. There is the problem of choice between economic (2) equality and economic growth. There may be a genuine conflict between economic equality and economic growth, with the exception of the situation where the rich are not using their income in productive purposes. The cause of economic growth may demand the removal of surplus people from land and the consolidation of holdings for the sake of more efficient farming, as well as provision of higher rewards to people with higher ability. (3) There is the problem of choice

for the mass of people in the underdeveloped countries between having higher material incomes and a faster rate of growth and preserving their traditional social, cultural and religious values and ways of life.¹

Besides these dilemmas, there are many more controversial issues at present, which may only be solved by "operational research" in varying conceptual situations. Some of them are: (1) Growth in a leading sector, or balanced approach for a "big push" or complementarities to reinforce favorable factors; a large social overhead capital or infrastructure (2) for greater efficiency and promotion of various industrial sectors or a gradually increasing infrastructure even if less efficient; (3) shift of interest from investment in material "infrastructure" to "investment in human capital"--how much and in what stage? (4) Use of market forces to stimulate rapid economic development or state control of market mechanism with a long-run view.

Problems of Macro-Micro Effective Interlocking

So far, we have been discussing the national macro-level models for planned change, with the one

¹Hla Myint, <u>The Economics of the Developing</u> <u>Countries</u> (New York: Frederick A. Praeger, Publishers, 1965).

exception of the Ponsioenian model which includes both macro and micro levels simultaneously. These macrolevel plans provide strategies with basic outlines of guides for activities in the micro-level--the regions and the local communities. The success of these macro-plans largely depends on the efficiency and strength of their inner mechanism to shape the economic activity from the micro-level up, in a predictable pattern. For optimum speed and growth this process of shaping should be both ways--up and down. The plans will hang in emptiness unless they have a firm grip on the soil. There have been many published works by specialists based on practical programs carried out in the micro level, i.e., community level, where the techniques and methods of getting the people involved have been analyzed and strategies prescribed. Many such prescriptions may be found in the publications of the United Nations, other international development agencies, the social scientists working in the field, and the community development and extension journals all over the world. Mention of only a few will be sufficient to make our point.

The phases of planned change at a small community level, elaborated by Ronald Lippitt, Jeanne Watson, and

Bruce Westley from the original conception of Kurt Lewin, are as follows:¹

1. Development of a need for change.

2. Establishment of a change relationship.

3. Clarification of diagnosis of the client system's problem.

4. Examination of alternative routes and goals; establishing goals and intentions of action.

5. Transformation of intentions into actual change efforts.

6. Generalization and stabilization of change.

7. Achieving a terminal relationship.

As to the strategies suggested in the micro-level of a community, we may briefly quote the composite list by Joseph Di Franco on rural adult education.² Rural Adult Education (with emphasis on the extension process) should:

 be based on conditions that exist (local, regional, and national);

involve people in actions that promote their welfare;

¹Ronald Lippitt, <u>et al.</u>, <u>The Dynamics of Planned</u> <u>Change</u> (New York: Harcourt, Brace and Company, 1958), pp. 129-43.

²Joseph Di Franco, <u>A Collection of Principles and</u> <u>Guides</u>, Comparative Expansion Publication, ed. by John M. Fenley, No. 4 (Ithaca: New York State College of Agriculture at Cornell University, 1959), p. 9.

- 3. develop programs gradually;
- 4. aim basically at people's interests and needs;
- 5. use democratic methods;
- 6. keep programs flexible;
- 7. work through understanding of the culture;
- 8. use local leaders;

9. use existing agencies;

- 10. utilize trained specialists;
- 11. work with all members of the family;
- 12. make programs as broad as needs of rural

people;

- 13. evaluate continuously;
- 14. work with all classes of the society;
- 15. keep in line with national policy;
- 16. use the community approach;
- 17. help people recognize their needs.

These are some specific examples which aim to study the inner mechanism of the process and also provide some guideline strategies for the practitioners to follow. Here again one can see that there is a tendency to overgeneralize through over-simplification of the situations. The only way to avoid the danger of superficial generalization and get closer to the real issue is to build up a typology which acknowledges certain significant differences of the nations, their social systems, their particular orientation to development and other such relevant factors.

Social processes aimed at inducing people to change in the community level have probably met success more often than have occurred on the national level. But the continuity of the successful process in the micro-levels is also largely dependent on the structure and function of the macro-level and its plans. The basic weakness in this regard probably arises between the micro- and macro-levels--the process by which the "micro" projects itself in the "macro" and how the "macro" supports the "micro"; how the national goals and objectives are transmitted to the people and how the people's beliefs, needs, and local efforts are integrated not only in the plan but also in the politico-administrative set-up for stabilization into institutional forms for free-rolling of development process. The linking process of the micro- and macro-levels can be studied only if we take the whole Isolated studies of either "micro" or as a system. "macro" with prescriptions of techniques cannot adequately help us. For techniques without understanding the processes in question are like dead-end roads.

CHAPTER III

METHODOLOGY

Definition of Terms

The terms and concepts used in developing the theme of the study may be defined to make the purpose clear. <u>Development</u> is conceived here as a concept of progress characterized by the society's own image of its planned future. So, development is culture-bound and carries an 'evolutionistic' meaning rather than 'biological.' Development is not only the blossoming of the latent potential but it is also an inducement of new potentials by external pressure or influence. Development for one country may be politically oriented, for another socailly or economically. It may be a combination of any of these emphases--political, social, or economic, or it may be shifting from one to the other.

<u>Planned social change</u> is any overall change in a social system which has been purposefully brought about, implying specificity and direction having social, political, and economic implications. It is also implied that in a planned change help is sought from outside. <u>A change agent</u> is the professional outside agent who renders help in a program of planned change.

The <u>client system</u> is that specific system--person, group or community--that is being helped by the change agent.

Education is conceived here as a power derived from the process of self-involvement which is capable of changing human behavior. Education thus defined involves both knowledge and the application of knowledge to the solution of human problems. Besides this general term, three other terms have been used: (1) formal education, (2) functional literacy, and (3)extension education. Formal education indicates that education which is generally received by attending regular schools (elementary and secondary). Functional literacy is defined as the amount of education which is required for reading simple passages with comprehension and writing simple ideas and messages. School attendance is not necessarily required to attain functional literacy. Extension education refers to that education which is generally imparted by the PARD and the KTCCA to the people involved in various programs. This education includes informal member education for cooperatives, knowledge of agricultural sciences and other relevant subject matter according to the interest of the groups for immediate practical purposes, and training of skills in various fields for their day-to-day activities. The extension education does not necessarily require a certain amount of formal education or functional

literacy as prerequisites, though their presence may greatly help. It is supposed to serve the lay people in a way to make scientific information easy enough for their comprehension and use. <u>Training</u> is conceived as a process of education directed to change behavior but with an emphasis on uniform terminal behavior. This implies learning of certain skills, control over specific situations, predictability of terminal behavior, and is generally unidimensional with occasional transfer in similar situations.

<u>Process</u> is meant to indicate the action of passing through continuing development from a beginning to a contemplated end. This implies growth, continuous change, and direction. <u>Educational process</u> is that process which deliberately seeks to change human behavior by means of prescribed educational plans, strategies, and programs. It follows from this definition that a 'planned social change' is brought about by deliberate educational processes.

<u>Developmental progression</u> is defined as a continuous movement towards the intended goals of development from a comparatively simple phase to a complicated phase of social and intellectual interactions. <u>Balanced</u> <u>program</u> means a program of group activities involving a set of complementarities which are mutually reinforcing and which maximize the total contribution of the set toward development goals. Instead of priorities, it

deals with complementarities, meaning the priority of a set. It is a multi-dimensional concept instead of unidimensional. <u>Structure</u>¹ refers to those regularities of human behavior within a specified social system which are so fully institutionalized that they persist within a limited range of tolerance, in spite of the changes in membership of the system. Structure thus defined implies independent elements or parts having a definite and fixed pattern of organization.

Institutions are patterned ways of behavior in a social system, performing functions and services which are valued by it. The function of institutions is to stabilize behavior, to offer patterns to individuals, to provide a meeting place for expectations and to protect normative relationships, so as to provide security in society. We will distinguish institutions as organizational and cultural, though some institutions do not easily lend themselves to such labeling. The organizational institutions will refer to the patterned ways of interrelations between individuals as in a family, a church, a school, a factory, a tribe, a village, a feudal hierarchy, etc. The cultural institutions will refer to patterned ways of common thinking, feeling, believing, judging, celebrating, as in religion,

¹Sloan R. Wayland, "Structural Features of American Education as Basic Factors in Innovation," in <u>Innovation</u> <u>in Education</u>, ed. by Matthew B. Miles (New York: Bureau of Publications, Teachers College, Columbia University, 1964), p. 589.

science, law, moral codes, languages, available technology, beliefs in authority, etc.¹

<u>Strategy</u> is defined as a means (usually involving a sequence of specified activities) for causing an advocated plan to be successfully (i.e. durably) installed in an ongoing system. Issues have also been raised about the interactive linkages between micro and macro systems. In discussing planned change, the individual and the small groups of which he is inevitably a part comprise the microsystems, whereas larger groups, big organizations, regions and the nation approach the macro-system. The jurisdiction of the <u>micro-system</u> has been defined operationally for the purpose of the study to extend up to the thana level and beyond that will comprise the macro-system.

System is conceived as

a bounded collection of interdependent parts, devoted to the accomplishment of some goal or goals with the parts maintained in a steady state in relation to each other and the environment by means of (i) standard modes of operation, and (ii) feedback from the environment about the consequences of system actions.²

Designs, Methods and Instruments

For the purpose of studying the social processes evolved in the Comilla program in its micro-setting

¹Ponsioen, <u>op. cit</u>., p. 133.

²Matthew B. Miles, "Educational Innovation: The Nature of the Problem," in <u>Innovation in Education</u>, ed. by Matthew B. Miles (New York: Bureau of Publications, Teachers College, Columbia University, 1964), p. 13.

it was decided to study the village cooperatives rather thoroughly and other organizations such as the KTCCA, Thana council, and PARD as extensively as possible.

It was also planned to see the whole system for its social processes in more than one cross-section. The study of village groups, and other organizations and institutions within the thana level would give one of the cross-sections of the system, where the organization would be taken as a unit. Another cross-section would be the study of the PARD projects (e.g., improved agricultural practices, thana development plan, family planning program, the education program, women's program, etc.) which runs across the organization, where the projects would be the units. So it was decided to select some of these projects in order to study the social and institution-building processes within the system.

In accordance with the plan it was decided to select 35 village cooperatives from a total of 406 (including disbanded ones) for investigation; four of these 35 cooperatives were selected for case study purposes and inventories of their detailed activities in chronological order were prepared. The PARD, KTCCA and Thana Council were also selected for case study purposes and inventories in chronological order of the significant events of these organizations from their beginning were prepared. Then the following six

projects¹ were selected: (i) Agriculture extension, (ii) Mechanization of agriculture, (iii) Storage, processing and marketing, (iv) Education, (v) Family planning, and (vi) Home development and Women's education and detailed inventories were prepared of their significant events in a chronological order. Case studies were conducted on three of them, namely, (i) Agriculture extension, (ii) Home development and Women's education (Women's program), and (iii) Education.

Details of the Methods Used

Inventory of events.--The inventory of a project or an organization lists in chronological order significant events, actions, and decisions having relevance to the educational processes of the project or organization in the broadest possible sense of the term. The first draft of the inventories was prepared from the content analysis of the published monthly and annual reports, research monographs and special documents. Interviews were conducted with the officer-in-charge of particular programs if some clarification was needed. The first draft was then subjected to scrutiny by a few

¹The names of the projects are given according to the widely used expressions found in the PARD publications. The education project does not include an identical concept according to the definition of the word 'education' given in the first section of this chapter.

experienced persons involved with the program. The next steps were: (i) to incorporate their suggestions if documentary support was available and (ii) to reduce the size of the inventory by eliminating those events which had minimum or no effect upon the educational processes involved. Though the reduction of the inventory list by elimination may have had some elements of subjectivity in spite of checking by a group, it was acceptable for the purpose of the study.

Case studies. -- The preparation of inventory greatly facilitated the organization of materials in a chronological order. But in addition to these, background information on the socio-psychological settings of the projects and reactions of people directly or indirectly involved in the programs were collected through field interviews and observations. The focus was on studying the particular project (or organization) with its evolving pattern to see how it fitted in with the existing social and administrative structure and what adjustments and adaptations led it to success, if it succeeded, or what unwitting omissions, what careless oversights brought on failure, if it failed. The measure of success was the extent to which the program became integrated in a total system of development process.

The guideline used for the case studies is given in the appendix.

Statistical investigation.--In view of the limited time, it was decided to make a statistical investigation covering a larger field for a wider perspective, and broad generalizations and trends. The statistical investigation in itself is sometimes inadequate to explain the various social and psychological factors and their intricate and subtle influences on educational and economic decisions. But it can definitely add perspective, and discover various symptoms in measurable terms which are also no less important for research purposes. It was expected that the statistical investigation would help in this discovery of symptoms, while the case studies would furnish knowledge for further diagnosis.

The main questionnaire had eight sections. The first section referred to data of a general nature about the cooperative which were collected from the office records only. The second section referred to the general socio-economic background of the village and the third to the organization of the cooperative. The fourth section probed the member characteristics of the cooperative while the fifth explored leadership roles in the past, leadership in the new cooperative and accommodation of the old and new leaders in the present power structure. Project work and the educational preparations for it concerned the sixth section.

The seventh section dealt with the problems of the cooperative and the eighth with general reactions of the members to the cooperative, its projects and some controversial social issues.

In addition to this main questionnaire, two other questionnaires were used--one for the cooperative manager and the other for the member.

The questionnaires were filled in through faceto-face interviews by investigators. The plan used in interviewing has been given on the next page.

So two types of data were collected, one type through the inventories of events and case studies and the other type through the statistical investigation.

Factor analysis.--The nature and scope of the study requires a data base as wide as possible which also makes a factor analysis on the data possible. Out of a total of almost 500 variables used for statistical investigation, there are 183 variables which are quantitative or ordinal with only a few dichotomous (with underlying assumption of normality). This provides an ideal opportunity to conduct a factor analysis to discover if there are any underlying consistencies in the whole mass of data. These consistencies, made up of variables, behave like constellations with respect to other variables. If there are any underlying consistencies inherent in the data, they are known as factors, which may be logically interpreted

Questionnaire No.#	Method	Persons Interviewed
1.1	Collection of data by consulting KTCCA and Cooperative Society records	
1.2	Group interview in the village for a concensus (these were issues on which concensus was possible by group verification and discussion).	The group consists of: manager, member no. 1, member no. 2, and at least three other members.
1.3	=	F
1.4	F	=
1.5	Individual interviews separately taken away from the village in the PARD office by invitation.	<pre>(1) Manager (11) Member no. 1 (11) Member no. 2</pre>
1.6	Group interview in the village for a concensus.	The group consists of: manager, member no. 1, member no. 2, and at least 3 other members.
1.7	-	=
1.8	Individual interviews separately taken away from the village in the PARD office by invitation.	<pre>(1) Manager (11) Member no. 1 (11) Member no. 2</pre>
•	Individual interview away from the village in the PARD office by invitation.	Manager
ŕ	Individual interviews separately taken away from the village in the PARD office by invitation.	<pre>(1) Member no. 1 (11) Member no. 2</pre>
*Eight sect	sections of the main questionnaire have been numbered	mbered as 1.1, 1.2, 1.8.

Figure 2.--Interview Plan

to be the various dimensions influencing the data. Since it is assumed that the development process is a complex phenomenon and is likely to be influenced by various factors, it is likely that the results of the factor analysis will shed more light on the various dimensions of the development process.

To use a particular computer program for factor analysis, the number of variables is further reduced to 90--from a careful study of a 183×183 correlation matrix. Since there are only 26 cooperatives which are really village-based and have supplied information on all the variables without any missing data, the number of observations available for the purpose is only 26. This is a very small number and theoretically can provide 25 factors at its maximum. However since one would feel content to get even half a dozen stable factors, it was decided to run a factor analysis on the data. From an a priori consideration it was felt that there was a better possibility of revealing most of the important factors because of the greater number of variables which though might not prove to be very stable in successive rotations due to the smaller number of observations. However, the factors have been later found to be very stable.

A full chapter is devoted later to discussion of the rationale of using the factor analysis, the results

obtained and how the results are related with other findings of the study.

Sampling

For statistical investigation. -- A complete list of cooperatives, whether active or disbanded, was made from the yearly ledger books in order to prepare the total sampling universe. The list contained two parts, one listing the cooperatives belonging to the Agricultural Cooperative Federation (ACF) and the other those belonging to the Special Cooperative Societies Federation (SCSF). The period was fixed from 1959-60, the beginning of the program to October 1968. Some 301 agricultural cooperatives under the ACF formally decided at one time or other to join the program and organized, though some of them dissolved before they could register with the ACF, and others were disbanded after they had registered and continued in the program for some time. In the same way 105 cooperatives were formally organized with the SCSF whether registered or not, continued or discontinued after some time. This made the total list of 406 cooperatives from which to draw the sample. Since these cooperatives varied among themselves in significantly different ways, it was decided to stratify them to take into consideration the following criteria for the purpose of sampling:

• *

- Age of the cooperative (from their starting dates)
- 2. Membership size of the cooperative
- 3. Total savings of the cooperative
- 4. Total share-purchase by the cooperative
- 5. Total loan received by the cooperative
- 6. Total loan repaid by the cooperative
- Loan outstanding in the name of the cooperative
- Grading of the cooperative by their inspectors.

Accordingly, for each cooperative the following information as of October, 1968 was collected as a basis for sampling:

- Block numbers (there are separate inspectors for different blocks of the ACF and the different groups meet on the basis of blocks with the respective inspectors. So the block numbers were expected to be helpful in contacting the groups)
- 2. Date of starting of the cooperative
- 3. Date of registration (with the central association)
- 4. Number of members at present
- 5. Total amount saved
- 6. Total amount of share-purchase

- 7. Total amount of loan received
- 8. Total amount of loan repaid
- 9. Loan outstanding

10. Grading by the KTCCA inspectors.

These figures were not readily available in compiled form. Most of these figures especially savings, share and loan amounts, had to be calculated by adding each and every transaction from various ledgers for all the years of existence of the particular cooperative. Special difficulties were faced in finding out the particulars of the disbanded societies.

Out of these 301 agricultural and 105 special societies (non-agricultural), it was decided to select 25 agricultural and 10 special societies. There was very little choice in selecting the ten special societies, because some of them were unique and had to be selected without any other choice. For example, there was only one motor drivers' society, only one butchers' society, only one carpenters' society, only one goldsmiths' society, and only one industrial laborers' society. Each of the eight criteria mentioned above was divided into three reasonable categories by checking the range and distribution of that criterion over the whole universe. For example, for age of the cooperative--three categories of starting dates, (i) 1959-1962, (ii) 1963-66, and (iii) 1967-68, were selected. These categories were selected by making a

subjective compromise among various criteria like: the natural distribution of the number of cooperatives over the years, a possible indication of the stages of growth in the number of cooperatives, and inclusion of certain numbers of cooperatives for each of these stages (categories) to make them fairly comparable. For membership size, in a similar manner, studying the trend from the parent data, three categories of membership sizes were chosen, (i) 10-30, (ii) 31-50, and (iii) 51-370, which were subjectively decided in consideration with the inherent trend in the data for a balanced comparison. The process continued for other criteria with the same principle in mind.

The rationale for choosing such a sampling method was the following: (1) The nature of the data was not so homogeneous and was highly influenced by various underlying (not sufficiently known) factors. This warranted a stratification of the universe for maximum efficiency. (2) This survey was exploratory and so it was not justified to limit the number of factors <u>a</u> <u>priori</u> without having a chance to see how the data were being shaped by the factors. This is why, to bring the maximum number of factors into fair play, unrepresentative coverage had to be given to some of the dimensions which either did not have enough cases in the universe or were too numerous. This is felt by the author to be a justified procedure when the purpose is not to

evaluate the program on the face value of the most representative data, but to disentangle some of the important processes which are distinct and may prove to be more significant in explaining the inner mechanism of the data.

So, the sample of 35 societies was drawn out of those 406 societies, providing that for each criterion the sample drawn provides a balanced proportion for meaningful comparison within its categories. It was a difficult problem of stratification to have all the eight criteria represented over their three categories in a balanced proportion from a sample of 35 only. In some places, we had to substitute one cooperative by the other to make the sample balanced successively, though we took one precaution at least by using numbers without knowing the names of the cooperatives. Thus the sample may be described as a purposive stratified sample, with random sampling wherever it was possible.

The list of cooperatives selected in the sample is given on page 60.

For case studies.--Out of these 35 societies, four were selected for case study purposes as has been indicated in the list of sampled cooperatives. Three of them were from the ACF and one from the SCSF. The main criterion of selection of these societies was that they be as widely different as possible from one another.

Agricultural Cooperative Federation (ACF)

			Blocks		
* 1.	South Rampur k	(.S.S. ¹	I		
2.	Sree Kamta	"	Ī		
3.	Monagram	11	I		
¥4.	South Kalikapu	ır"	I		
5.	Bhubanghar	11	I		
6.	Chowara	11	I		
* 7.	Sree Nibash	"	I		
8.	Katanishar	11	I		
9.	Abdullahpur	11	I		
10.	West Rasulpur	11	I		
11.	Monshashon	11	II		
12.	~ .	11	II		
13.	•	11	II		
14.	Lalbag	11	III		
15.	Panchthube	11	III		
16.		11	III		
17.		11	III		
18.	Niz Banasua	**	III		
19.	-	**	III		
20.	Jangalpur II		IV		
21.	Anandapur II	**	IV		
22.	Bhatkeswar	"	IV		
23.	Pepulia	"	IV		
24.	Pathuriapara-	n			
25	Durgapur	"	T17		
25.	Pratappur		VI		
	Special Coopera	ative Societies Federation	(SCSF)		
* 1.	Kashinathpur-I	$eedar S.S.S.^2$			
2.	Bejoypur Potte	rv			
3.		Dhanpur Shuktara S.S.S.			
4	-	nters Cooperative			
5.	Comilla Motor				
6.	Comilla Butche				
	Comilla Trunk	Manufacturing Workers			
		e Small Traders			
	Halima Textile				
10.	Goldsmith S.S.	.s.			
Fig. 3Stratified random sample of village cooperatives.					
	# 				
		atives are also selected for	or case		
studi	es. lv c c · vricho				

¹K.S.S.: Krishak Samabaya Samity (Farmers cooperative society.

²S.S.S.: Sramik Samabaya Samity (Wage-earners cooperative society)

Of the three societies from the ACF, two were old and had supposedly been good in the beginning, but one of them is believed to be continuously improving and the other one is gradually going down. The thrid one is a comparatively new society and is considered to be improving. The fourth one which is from the SCSF is considered to be one of the best, which is old and believed to be continuously progressing. It is expected that these four cooperatives will give a range of variety, though the criteria on which they were selected are subjective.

Organizational Set-Up

The author returned to Comilla for collection of field data in August, 1968. The Ford Foundation Pakistan Project provided a grant to support the field research. Four research assistants were employed for six months for assisting the author in collecting the data. Three of these assistants had M.A. degrees in Sociology and the other had an M.A. in Social Welfare. They were trained constantly by the author as they proceeded with the work. They started making the inventories first, going through hundreds of publications of various types. In this process they specialized in certain organizations and projects and were later given responsibility to conduct the case studies in those respective fields of their specialization.

In addition to these research assistants, five (5) more enumerators were appointed first to collect data from official records, and later, to help the research assistants in group interviewing. Along with the research assistants and the author, they were also utilized to interview individual villagers (managers, members, drop-out members, non-menbers) who were invited to come to the PARD office for the interview. Holding the individual face-to-face interviews in the PARD office was planned with the consent of the interviewee to make the interview situation uninterrupted by presence of other members or villagers. From past experience, it was felt that interviewing an individual in the village even in his private house was bound to be disturbed by others' presence, where the managers or the members would not be able to speak frankly what they would like to say. So it was decided that we would pay them a flat travelling allowance of Rs. 5.00 (US \$1.05) for their visits to the PARD office. The method worked with 100% turning up for the interviews.

At a still later stage two (2) more assistants were appointed to help in coding. A spacious office was given to the research team in the PARD library building. Later a Land Rover was given to the team by the Director of the PARD exclusively for visits to

63

villages. The Director and other colleagues of the author were very helpful in this regard. The field work was completed by March 20, 1969 and the author returned to MSU on March 29, 1969.

CHAPTER IV

SOCIO-ECONOMIC BACKGROUND OF THE

COMILLA COMMUNITIES

Socio-economic Pre-conditions of the Communities Involved in the Comilla Program

The process of development is a complex one. It has many dimensions which are inter-related in various ways depending on various situational contexts. It has been previously stressed that to understand the process of development one has to understand the socio-economic pre-conditions of those social units which are to be analyzed. In this chapter, the socio-economic conditions of the villager and briefly the special barriers to development of the cooperative villages, will be discussed. The various other institutions within the sphere of the micro-structure, namely, the cooperative, KTCCA, Thana Council, and PARD (which extends beyond the sphere of the micro-structure) shall be taken up in later chapters.

Village

The importance of the village in traditional societies is great. East Pakistan villages having a

dominant background of traditional society are now in transition. It is impossible to understand the forces of transition without understanding the village, its hold on the traditional values, and its conflict with them. Although Gandhi's words, "Each village its own republic," certainly had a political bearing during the resistance against the colonial power, his conception was also a more or less accurate description of the actual situation. The great traditional societies of the past retreated to the rural villages with their social and cultural life in conflict with the colonial powers and successfully kept the village completely insulated from the outside world as selfsufficient societies, each for itself. It is only recently that those centuries-old social units, the villages, are opening up to the forces of the greater society and the larger world.

The PARD, recognizing the critical importance of the village in East Pakistan as an economic and social entity, started its planning and work in the villages. Village-based cooperatives were formed which helped all other modernizing processes to take root in the long-neglected, poor, and fatalistic rural East Pakistan.

Most of these villages consist of several extended kinship clusterings which are known as <u>paras</u> having independent territorial boundaries. Geographically,

the para may be considered somewhat equivalent to the American "neighborhood" with the understanding that in a para there are closely-knit contiguous homesteads on a tract of high land (to avoid the problems of flooding during rainy seasons). The constellation within the para consists of mostly kinship groups with certain lineages preponderant in wealth and social influence. The number of paras generally extends from 2 to 5 in a village. Sometimes age-old factions and cliques continue to divide the village for generations into two or more groups constantly engaged in "cold-war tactics." These factions are called <u>reyais</u>, consisting of one or more congruent paras. The reyai is the smallest social entity with formal structure.

Every village falls within the jurisdiction of a <u>samaj</u>, big or small, with distinct roles and great powers to execute its sanctions and rewards. Samaj is "an institution evolved by local villagers as a means of collectively handling matters of importance to residents of a multi-village area, under historical conditions in which little external authority was present to perform such functions."¹ A samaj is

¹Peter J. Bertocci, <u>Pattern of Social Organization</u> <u>in Rural East Bengal</u>, to be published by the Asian <u>Studies Center of MSU</u>, as part of the proceedings of the Fourth Annual Conference on Bengal, p. 14.

considered big or small according to the territorial jurisdiction under its influence and assumes power and prestige accordingly. When a samaj is found to include a few villages, the history of the samaj will most likely reveal that these villages are really off-shoots of an old village which used to be the center of the samaj. Generally, a village with all its reyais is identical with a samaj. But if the reyais are big enough, or want to remain independent of one another they may form separate samaj. The smaller samaj then become parts of a bigger samaj accepting the authority of the bigger samaj in matters of dispute. If the bigger samaj fails to control a smaller samaj by exercising all its vested power, it takes recourse to the pressure of a still bigger samaj with a larger jurisdiction and the equilibrium is restored again. This means that there is always a whole world of activities going on in the background with respect to samaj to maintain the balance of power.

Each village, unless it is too small, is divided into a few paras. Generally each para will belong to one or a limited number of extended kinship clusters. A reyai at the lowest may coincide with the para, or it may include two or three paras. A samaj at the lowest may coincide with a reyai, or it may extend to include up to three or more reyais. The village and para are the geographical units, whereas the samaj and reyai are the social units. The para is truly a neighborhood cluster having a predominant kinship settlement in an age-old background.

The following roles of the samaj have been compiled according to their decreasing order of frequencies from the group responses (in consensus) given by the members of each village cooperative:

1. Settles all kinds of individual and collective disputes among the villagers by sitting together in a <u>mel</u> (formal meeting of the village leaders and the parties involved).

2. Preserves discipline in the village by enforcing the system of <u>sardari</u> (formal structure recognized by the villagers for social administration of the village with implicit authority over the members of the village, also known as panchayet).

3. Offers informal advice on the settlement of marriage proposals. But when taken to a formal level, passes decisions of support and cooperation or otherwise according to the social code on marriage.

4. Guides and controls village feasts according to social rites and tradition.

5. Encourages observance of religious rites and duties.

6. Preserves social peace in the village by inducing the people to follow prescribed behavior patterns.

7. Constructs mosques, bridges, etc. from public funds through community efforts.

With these social customs in mind, the villagers were encouraged to form their cooperative within their village. Any cooperative may split into two or more groups if they wish to, according to rules laid down by the cooperative. Only rarely were cooperatives organized having jurisdiction over two villages.

In the beginning of the program in 1960-61, the average size of the membership of these cooperatives was 36, which gradually extended to 60 by 1967-68. In most cases one kitchen-unit (i.e., family) is represented by one member but there are also cases where more than one member come from the same kitchen-Though there is a general tendency for the unit. membership to increase, there is considerable variation in the coverage ratio of the village by the cooperative. The coverage ratio is defined by the proportion of the total number of households belonging to the members of the cooperative as related to the total number of households in the entire village in 1967-68. The coverage ratio in the sample ranges from .04 to 1.00 (Bejoypur and Katanishar for the lowest and highest

respectively), with a mean value of .48. This means that almost half of all the kitchen-units of the villages have been covered by the cooperatives in 1967-68.

The average number of households in our sampled villages is 138 (approximately) with approximately 5 members per household. The average population of the village is 714. The average number of households and average population of the village probably have an upward bias because of the fact that some of the largest cooperatives were included in the sample, and this may not be fully compensated by the inclusion of smaller cooperative villages.

Economic Conditions

Land.--The quantity of land per household is a good indication of the economic condition of the family in general. Table 1 gives the number of villages having various percentages of families within different land categories taking all the sampled villages together.

In column 2, twelve villages have 10% or less of their families with no cultivable land; 10 villages have 11-20% of families with no cultivable land; 3 villages have 21-30% of families with no cultivable land; and so on. From this table a typical village

TABLE 1Distribution	0	f families taking all	(in percent the sample	over ges to	r various land together.	categories
	Village	iges (as fre	frequencies) Un	Under Different Land	t Land Categories	ories
Percentages of Families	No Cultivable Land	.80 acre or less	.81 acre to 2.00 acres	2.01 acres to 4.00 acres	4.00 acres to 6.00 acres	6.01 acres or more
0% - 10%	12	N	ħ	7	23	26
11% - 20%	10	7	N	13	£	2
21% - 30%	Ŷ	11	8	N	0	0
31% - 40%	Г	4	11	ħ	0	0
41 % - 50%	0	0	£	5	0	0
51% - 60%	0	-1	0	0	0	0
61% - 70%	Ч	Ч	0	0	0	0
71 % - 80%	Ч	0	0	0	0	0
Total no. of villages	28	28	28	28	28	28

may be considered to have the following percentages of families within the various land categories:

Percentage of families No cultivable land: 15 .80 acres or less: 26 From .81 acre to 2.00 acres: 28 From 2.01 acres to 4.00 acres: 18 From 4.01 acres to 6.00 acres: 8 From 6.01 acres or more: <u>5</u> 100%

The mean of village modal sizes of land-holding per family is 1.46 acres.

Income in terms of subsistence.--While the amount of land held by the family is a useful variable for determining its economic condition, for sociological purposes various categories of family incomes in relation to subsistence have also been collected. Subsistence, here, does not mean any fixed standard for all families. It is a relative reference point for each family which is more convenient for the villagers to account for. This is also an accepted expression of the local groups. This variable, it appears to the author, has more sociological meaning, since the people who cannot meet their expenses and are in want may tend to behave sociologically in more or less identical fashion while at the same time their behavior differs from those who have some surplus over subsistence. From this consideration and also from the fact that the farmer's estimate of annual income in absolute terms would have a large error-component in it to vitiate any efforts at refinement, it has been decided to collect the income information with reference to subsistence as shown in Table 2.

In terms of percentages of families in a village with income below subsistence level, there is a wide scatter in the sample. There are villages having less than 10% as well as more than 91% of families in this income category. The maximum number of villages, six, have 51%-60% of families in this category and 50% of the villages, fourteen, have more than 50% of families in this category of "income below subsistence level." The table shows in what percentage level the maximum frequency of villages occur in different income categories. From the above table the income composition in relation to subsistence of a typical village may be given as follows:

	n	in percent e sample v (as frequ Income	ver various together. under diffe les	income categories rent
Percentages of families	Income below subsistence level	Income at subsistence level	Income above subsistence level	Income at higher level
0000 000 000 000 000 000 000 000 000 0	ちょうここら ようこ	0000000 H	∞ o z z H O O N O O	000000hm
Total no. of villages	28	28	28	28

* This category of income includes those families who would have no worries about subsistence even in extremely unfavorable years under natural calamities.

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Income levels	Percentage of families
Income below subsistence level:	44%
Income at subsistence level:	27%
Income above subsistence level:	22%
Income at higher level:	7 %
	100%

<u>Occupations</u>.--The dominant occupation of villagers is agriculture. However, the following list gives the various types of occupations in a decreasing order in the most numerous income group of the village:

Occupations

- 1. Agriculture
- 2. Agriculture labor
- 3. Trade
- 4. Medical practice
- 5. Industrial labor
- 6. Services

"Agriculture labor" means working on others' farm or land as a wage-earner while "Agriculture" means farming one's own land. "Trade" includes shopkeeping, trading, and all kinds of business. When the various income groups in terms of subsistence are considered, the pattern of occupation changes, with the exception of agriculture. (Ref. Table 3.)

A typical village will have the following (hypothetical) percentages of families within each group of occupations (derived from the sample data):

	Occupations	Percentage of families
1.	Agriculture	80%
2.	Agriculture labor	15%
3.	Trade and services	5%
4.	Industrial labor and Medical practice	almost negligible

Though the percentages of industrial labor and medical practice are almost negligible on the whole, there are three villages with a high concentration of industrial labor.

The farmers raise two crops on 50% of the total land and the rest of the land is almost equally divided into one-crop and three-crop land. The percentage of three-crop land shows an increasing trend. The average income per acre of land taking all types of land and all kinds of crops together is Rs. 1099, which is a very rough blanket estimate. But per acre income varies over

			Income categories.	ories	•		
I Sub	Income Below Subsistence Level	Sub	Income At Subsistence Level	Subs	Income Above Subsistence Level	Н	Income At Higher Level
	Agr1culture	Ŀ.	Agriculture	л.	Agriculture		Agriculture
5.	Agriculture labor		Trade	5.	Trade	S	Services
'n	Trade	÷.	Services	÷.	Services	÷.	Trade
ч	Medical practice	ч.	Agriculture labor	ч.	Medical practice		
5.	Industrial labor	5.	Industrial labor				
.9	Services						

TABLE 3.--Occupations ranked according to prevalence within the various Income categories.

a large range from Rs. 625 to over Rs. 2250. Mostly two paddy crops are grown with a variety of vegetables on raised land near sources of water. Sometimes instead of one paddy crop they grow sugarcane. But recently in some cooperatives the members have also started cultivation of a third paddy crop and extended cultivation of vegetables, potatoes and watermelon by power irrigation from deep tube-wells. However, the agricultural pattern still remains highly controlled by the monsoon.

Social Conditions

Almost half of the villages mentioned the presence of social conflicts in their villages before the establishment of the cooperatives. Half of the conflicts occurred twenty or more years ago, about a third took place ten to twenty years ago, and about one fifth happened within the last ten years. It is quite natural for the villagers to remember them over a long period of time, though it may seem that they are quite in harmony. In new conflicts, the old feelings and emotions may flare up in no time. The direct and important reasons for the social conflicts as stated by the groups are arranged below according to their frequencies:

Direct and Important Reasons for Social Conflicts

1. Proprietorship and dispute with regard to land resulting in serious quarrels and murders.

2. Conflict on the issue of village leadership and election of members of the Union Council.

3. Conflict on the right of use of a road for going to the Eid-gah (field for annual congregation).

4. Conflict between two paras on the issue of the imam of the mosque.

5. Conflict between two groups under two classes of <u>mollas</u> (religious leaders) on a controversial marriage from religious point of view.

6. Conflict with the kinship on daughter's marriage.

7. Conflict arising out of an arson case and burglary.

A leader, in terms of decreasing frequency, is accepted because of:

1. Inherited family tradition

2. Honesty and competence

3. Education and economic solvency

4. Benevolence and respect for justice

5. Agreeing to provide a feast for all the villagers (to buy their acceptance)

6. Physical force and moneyBut the type of people the villagers respect most (according to frequency):

1. Educated persons

2. Religious persons

3. Elders

4. Sardar and village leaders

5. Educated and honest

6. Rich persons

7. Honest (man of character)

8. <u>Mollah</u> and <u>alem</u> (religious leaders and scholars)

9. Elders and religious

10. Persons from higher class families.

This indicates that the educated and religious persons from the old prestigious families who are also rich and powerful would be an ideal combination for leadership positions. But in most cases, though the villagers respect the educated, the educated persons have little time for or interest in village affairs. They are the persons who are ready to leave the village and have very little concern for rural development except for altruistic purposes.

The events remembered by the villagers as proud moments of achievement may give some understanding of the kinds of activities they are generally habituated to honor. The following proud achievements of the villagers have been arranged according to their frequency, though there are some villages with "no good events worth mentioning."

Events of Proud Achievement of the Villagers

 Construction of primary shcools, high schools, <u>moqtab</u> (a school where the Quran is taught), <u>madrasa</u>
 (a school of religious denomination), mosques, etc.

2. Construction of <u>pucca</u> (reinforced concrete) stair-way to the tank, roads, and small and large bridges by community efforts.

3. Establishment of a cooperative society, post office, railway station, etc.

4. Installing tube-wells, electricity, ricemills, etc.

5. Organizing many social and welfare activities by creating <u>dharma-golas</u> (a stock of grain donated by the villagers to meet the expenses of welfare activities).

6. Resolving the long standing factions of the village.

7. Building a dam on the river Dakatia to control flood and using pipe-lines with pumps to irrigate from the river. (Mentioned once.)

8. Leader of one village sitting for judgement for eight other neighboring villages. (Mentioned once.)

9. Organizing an educational exhibition for seven days attended by the Deputy Commissioner and some American guests. (Mentioned once.)

Education

Functional literacy figures among the villagers under study before the organization of the cooperative and at the end of 1967-68 are given in Table 4. Functional literacy was defined as the amount of education which is required for reading a simple passage with comprehension and writing simple ideas and messages. Table 4 shows that three fourths of the villages (21 = 10+11) had 50 or more functionally literate persons while one-fourth had 51 or more before the cooperative was established. Whereas half of the villages (14 = 5+9) had 50 or less functionally literate persons, the remaining half had 51 or more at the end of 1967-68. The average number of functionally literate persons in each village was 39 before the cooperative was established and 59 at the end of 1967-68.

The primary schooling (Elementary - Up to Grade V) among the villagers before the organization of the cooperative and at the end of 1967-68 may be studied from Table 5. Half of the villages (14 = 6+5+3) had 30 or less persons who had attended schools up to primary level and the remaining half had 31 or more before the cooperative was organized. But at the end of 1967-68 half of the villages (14 = 0+3+2+3+3+3) had 60 or less persons who had attended schools and the

ative	Villages
es tionally	At the end of 1967-68
es tionally t the	μ
es tionally t the	6
es tionally t the	7
es tionally t the	9
es tionally t the	4
no. of functionally e persons in the	28
	59

TABLE 4.--Functional literacy among the villagers.

snown because the percentage figures מ ד 2110 DCT D ر đ are very small.

	Number of Vil	lages
Total no. of persons schooled (Up to Primary level)	Before Organization of Cooperative	
0 - 10	6	0
11 - 20	5	3
21 - 30	3	2
31 - 40	5	3
41 - 50	0	3
51 - 60	2	3
61 - 70	2	2
71 - 80	0	3
81 - 90	3	3
91 - above	2	6
Total no. of Villages	28	28
Average no. of persons with schooling (up to Primary level) in the village	38	61

TABLE 5.--Primary schooling among the villagers.

rest half 61 or more. At the end of 1967-68 there was no village with number of persons schooled up to primary level less than 11 and six of the villages had 91 or more persons schooled up to primary level. The average numbers of persons with primary school education in the village at the end of these two periods were 38 and 61 respectively.

The mean values of functional literacy and primary schooling as shown in Table nos. 4 and 5, are in close agreement. The percentage figures for highschool graduation and higher education are much lower. But considering that they might play significant roles in the development process of the village, they were collected for use in the factor analysis which will be discussed later.

The Pakistan census report gives the literacy rate of the Comilla Thana as 39%.

Special Barriers to Development

This section has been developed from the author's previous unpublished materials and his interviews with his colleagues working with the cooperative program in the villages in connection with the present research. The inventories and case studies of the village cooperatives and the responses of managers and members of the cooperatives on the basis of the questionnaireinterviews also provided valuable materials.

Continual Disinvestment

There is a tremendous draining off of resources from the agricultural sector. This problem of continual disinvestment needs a full-fledged study for its own sake. However, only a few dominant trends may be mentioned here.

Absentee-landlords.--There is a considerable percentage of absentee-landlords in the rural villages. The major share of income that they get out of their agricultural lands goes out of the village and is spent elsewhere. Little benefit from those earnings returns to the rural sector either in visible or invisible shape. These absentee landlords invest almost nothing in their land; rather they have a unique advantage for exploiting the poor share-croppers since there is a great demand for land among the share-croppers, the supply being minimal.

<u>Money-leaders</u>.--There is a money-lender class in the village since the modern institutional credit facilities for farmers are so insignificant. In most cases, these institutions cannot help the farmers directly because of lack of clear title of land (due to a complicated inheritance system) or collateral. Instead, for their own business, they help the moneylenders by providing capital for investment with the farmers. These money-lenders take away all the

surplus that a producer could use to improve his agricultural techniques for better production by demanding a usurious interest rate on the loan money.

Price system.--The farmers suffer great losses from the seasonal fluctuation of prices in the market. Being under constant pressure of creditors and lacking storage facilities and capital, the farmer sells his produce in the market just at the peak of the harvesting season and gets the lowest price of the year for his produce. After paying off all his debts, and half of the crop in share-cropping to his landlord, he is left with very little cash and stock of grains for the rest of the year. This compels him later to buy his staple food from the market at the highest prices of the season. This cycle goes on year after year keeping him in perpetual want and a good "prey" for the money lenders and other "parasites."

Education.--The educational system is wrongly geared and continues to produce either high-level academicians or low-level clerks--a distinct dualism in education, without regard to other educational functions between the two extremes. So it prepares the villagers only to leave the village. The investment in education both in maintaining the schools and educating the children, bears fruit in other sectors, not in agriculture. Rural education exists only

nominally and there is no means to educate the farmers. As a result, about 80% of the population is totally illiterate.

Lack of Incentives and Profitability in Agriculture

Agriculture is primitive and production is very low. Agricultural land is highly fragmented and percapita holding is uneconomic. The transformation of this niggardly traditional agriculture depends on investment, which is not primarily a problem of the supply of capital, but of determining the forms this investment must take, forms that will make it profitable to invest in agriculture. But for ages the agriculture of East Pakistan was left to the vagaries of nature, and it has been the most unprofitable occupation, though practiced by 80% of the people. Incentive to work harder is weak because the marginal productivity of labor is very low; and incentives to save more are weak because the marginal productivity of capital is also very low. Because of this situation a vicious circle is created and the state of agriculture has remained low.^{\perp}

¹Theodore W. Schultz, <u>Transforming Traditional</u> <u>Agriculture</u>, Yale University Press, New Haven, Connecticut, 1964.

Lack of Infra-structure

Through ages of neglect by the government and lack of initiative on the part of the farmers, the rural infra-structure has been gradually deteriorating. With the onslaught of every flood, the road system would be largely washed out and bridges demolished, creating problems of movement and marketing of produce. Instead of gradual improvement of the rural infra-structure over time to check floods, to facilitate drainage, to improve the transport system and to help ideas move and education expand, these have all been allowed to deteriorate to the extreme. The rationale behind this neglect for the government was that there were other important priorities and for the village people, it would be unprofitable to invest or too huge for them to tackle.

Apart from this physical infra-structure, there was also no organizational infra-structure for extending credit facilities, providing supplies of seeds, fertilizers, etc., as well as technical assistance and services to the farmers, nor for maintaining educational efforts, supervision, or any kind of effective liason with the rural people.

Psychological Inhibition

The people are fatalistic and devoid of initiative-a chronic sympton from an age-long helplessness and lack

of confidence. The grip of fear has been intensified by all kinds of "regular" exploitation prevailing in the society. Individually, they have a feeling of being too insignificant to fight for self-development within the social, political and economic milieu. Collectively, they have a serious lack of confidence in their own village groups--in their solidarity, sincerity, and intelligence. Over and above all, the village is faction-torn by strong vested interest groups. In this extremely frustrated, desperate and chaotic situation, leadership is assumed by the privileged classes without being truly faithful to those they lead.

Lack of Participation With Local Self-government

The local self-government units were mainly tax-raising institutions and agencies of law and order. They could do very little for the benefit of the rural people and so the rural people developed a feeling of distance from the decision-making centers and helplessness in controlling their own destiny.

Lack of Effective Administrative System

The society inherited an old pretigious administrative system lacking a welfare bias in general and having a low standard of efficiency in rendering services through its existing machinery. As a consequence, the people's conception about the government as a whole is that it exists to raise taxes and maintain law and order.

Lack of Women's Participation

There is no effective program for the emancipation and welfare of women. They are often a burden to the family and are believed not to contribute their proportional share in raising the family income.

Increase of Population

To add further to the problem, the population is growing very rapidly.

Besides these general problems, the following responses by the villagers "on special local barriers (physical, social and psychological) to the development of their village" as conceived by themselves will further add a perspective on this point.

The responses are arranged according to their frequency of occurrence:

1. Destruction of crops by excessive rain, drought, and floods in the Gumti area almost regularly.

2. Demolishing of homesteads and standing crops by storms and cyclones.

3. Lack of unity because of jealousy and factions.

4. Lack of roads and communication facilities creating problems of movement and marketing of produce.

5. Lack of general education and knowledge of improved methods in agriculture.

6. Lack of water for agriculture.

7. Human epidemics and cattle epidemics.

8. Lack of facilities for cultivating the unfertile land of the hilly region.

Some of the Social Aspects Shaping an Emergent Change-Process

In spite of such a dismal picture, the situation is not entirely without hope. The people's dreams of a prosperous future during the independence struggle have not yet disappeared altogether. A bit of success here and there, though too isolated to make any permanent impact, is instrumental in raising aspirations. Some positive factors and realization among the people (and the society) seem to be prevailing which could be tapped for initiating a change process. Some of them may be described as follows:

1. Having no problem of disproportionate landlordism in East Pakistan, the influence of the so-called elites (aristocracy) has been slackening in the rural society.

2. The farmers are gradually being convinced that something must be done to increase their farm

productivity, though they are largely ignorant about the means which are appropriate to them.

3. The government is getting disturbed more than ever about the increasing food deficit year after year and the heavy drainage of already scarce foreign exchange for buying food. As a consequence, the Five Year Plans have their priorities shifted more and more towards agricultural development.

4. It is becoming more fashionable or progressive for the political parties to talk about agrarian reforms and rural development.

5. Many of the old values are breaking down because of the hardening conditions arising out of the population growth and consequent decline in the per capita holding, rise of prices and general proportional decline of the per capita income of the rural people, and increasing impact of urbanization and mobility and a consequent opening up of the relatively closed communities.

6. People are becoming more conscious of their rights and privileges, due to the rising aspirations of the present generation. An urge seems to be growing among the rural people for modern education and skilled training.

7. People seem to be ready for change, but totally confused about the nature and direction of change.

CHAPTER V

THE COOPERATIVE PROGRAM

Transition from a Somewhat Closed System to an Open System

Ghandi's "village republic" was almost a closed system. It was self-sufficient and always wanted to remain self-sufficient. It was a society in miniature that wanted to remain insulated from outside influence. The villages in different regions of British India varied only in degree from this ideal case. Even in the present decade, the villages have not changed much, except where urbanization or industrialization have had their sway around their peripheries. The hard core of villages has remained almost untouched or unconcerned by the changes brought about by twentieth century modernization.

The Comilla villages experienced the war-time movement during the Second World War, the Comilla cantonment being the military headquarters of the entire East India region under the British government. It was also a center of the terrorist movement in the preindependence period. After independence, higher English education started getting into those hard core

villages and people from those villages, at least a fraction of them, started joining the government offices. All these influences had certainly an almost imperceptible impact on the hard core of the villages which could, however, be observed over time by a sociologist or an anthropologist. But compared to the changes brought by these mighty impacts, the consistent and intensive impact of the village cooperatives introduced by the PARD in the Comilla thana is tremendous. A force strong enough to open up the system is being generated from within. The village people have organized a new institution, the village cooperative, at the village level, and a much larger organization, the KTCCA, at the thana level. They are constantly engaged in opening up channels of communication, new monetary transactions, the flow of improved knowledge and skills, and partnership activities with external agencies, organizations and institutions. This is considered a dominant characteristic of an open system, that it allows itself to explore outside the closed system and interact in a meaningful way with a wider world.

Brief Description of the Cooperative Program

The PARD as a new institution developed a new image of governmental collaboration with the people. It developed new rural institutions to provide the people with services and assistance in carrying out their programs. To do this effectively, the PARD leaned

largely on some basic principles in developing its strategies and gradually extending them on the basis of the situational factors. These strategies will be discussed in a later chapter. In this chapter some of the dimensions of the Comilla program will be described very briefly in physical terms. The data compiled in the Rural Cooperative Pilot Experiment, Eighth Annual Report¹ on membership sizes, capital formation and loan program of the village cooperatives, have been extensively used in addition to the sample data.

Cooperatives and Membership Sizes

The following table (Table 6) gives the number of village cooperatives of the Comilla Kotwali thana on a yearly basis from 1961-62 to 1967-68 gives the size of membership per cooperative. The figures have been shown under separate columns for the ACF and SCSF, the two cooperative federations of the central association (KTCCA). All quoted figures and the sample data cover up to the year 1967-68. As reference data the area and population of the Comilla thana may also be given. It is 107 square miles in area with over 200,000 population, of which over 50,000 population belongs to the district town, Comilla, covering approximately 7 square miles in

. . . .

¹Badar Uddin Ahmed and Rezaul Karim, "A New Rural Cooperative System for Comilla Thana," <u>Rural Cooperative</u> <u>Pilot Experiment, Eighth Annual Report</u>, PARD, Comilla, East Pakistan, April, 1969.

	Numbei	Number of Cooperatives	ttives	To	Total Membership	Q	Membershi	Membership per Cooperative	tive
Year	Coop. Societies enrolled with ACF (1)	Coop. Societies enrolled with SCSF (2)	Total Societies (3)	Total Membership with ACF Coops. (4)	Total Membership with SCSF Coops. (5)	Total Membership Combined (6)	Membership/ Society ACF (7)	Membership/ Society SCSF (8)	Average Membership Size (9)
1961-62	59	11	70	1,860	614	2,474	32	56	35
1962-63	110	17	127	3,156	1,104	4,260	29	65	34
1963-64	122	0 17	162	3,833	2,135	6,018	31	55	37
1964-65	152	50	202	4,910	2,337	7,297	32	48	36
1965-66	158	58	216	5,161	2,610	7,771	33	45	36
1966-67	225	67	292	3,462	3,090	11,552	38	46	14 0
1967-68	261	78	. 339	11,513	3,936	15,454	11 17	51	91

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the center of the thana. There are approximately 250 census villages, but the number of local villages may extend up to 460.

The table shows that there are 339 cooperatives (Column 3) at the end of the year 1967-68 of which 261 belong to the Agricultural Cooperative Federation (ACF) and 78 belong to the Special Cooperative Societies Federation (SCSF). These cooperatives have 15,454 members in total, most of them representing one member per family (i.e., kitchen-unit.) In columns (7), (8) and (9) the average number of members per cooperative has been given. The agricultural cooperatives have on the average a smaller size than the special cooperatives. The average size of all the cooperatives taken together has increased from 35 in the year 1961-62 to 46 in the year 1967-68.

The sample figures may be compared with the figures of the average number of members per cooperative in the parent data presented in Table 6. Though the sampling proportion is more than 10%, it is not expected that the figures will tally except for significant trends. The reason for this is that a purposive stratified random sampling was chosen instead of a pure random sampling, the rationale for which has been given in the chapter on methodology.

Table 7 gives the sample figures as against the population figures. They may not be strictly comparable for another reason. The membership of the cooperatives in the parent data was compiled after the cooperatives had been registered with the central association, but in the case of the sample the membership was compiled from the date of the starting of the cooperatives in the villages, which includes a sort of 'probationary' or 'pre-natal' period. In some cases, the registration is done even after two years, if it survives that long. The year 1959-60 has been left out from the table, which had only one cooperative with 46 members during the year. The figures of the parent data start from the year of registration (January, 1962) of the central association, though there were cooperatives before that period.

This table shows that generally the special cooperatives are always bigger in size than the agricultural cooperatives. There are some reasons which explain the larger size of the special cooperatives.

The special cooperatives in most cases were not bound within the limits of the cohesive 'para' or the village. The greater the size of the group, provided the initial trust is established, the greater is the work efficiency for the total group. The issue of

	6 33 45 36 39 66 48	Average no. Average no. Average no. Average no. Average no. of members of mem	Parent data (include registered Sample data (include both disbanded cooperatives only) and unregistered cooperatives)
		29 53 56 35 32 67 65 34 32 86 65 34 32 86 148 36 34 75 148 36 36 66 145 36 39 66 145 36 39 66	age no. Average no
45 36 39 66		29 53 3 56 35 32 67 4 65 34 32 86 4 55 37 34 75 4	age no. Average no
48 36 36 66 45 36 39 66	48 36 36 66 4	29 53 3 56 35 32 67 4 65 34 32 86 4	age no. Average no
55 37 34 75 48 36 36 66 45 36 39 66	31 55 37 34 75 4 32 48 36 36 66 4	29 53 3 56 35 32 67 4	age no. Average no
65 34 32 86 55 37 34 75 48 36 36 66 45 36 39 66	29 65 34 32 86 4 31 55 37 34 75 4 32 48 36 36 66 4	53 3	age no. Average no
56 35 32 67 65 34 32 86 55 37 34 75 48 36 36 66 45 36 39 66	32 56 35 32 67 4 29 65 34 32 86 4 31 55 37 34 75 4 32 48 37 34 75 4 32 48 36 36 66 4		age no. Average no. Average no. Average no. Average no. Average embers of members of members of members of membe ACF per SCSF per coop. per ACF per SCSF per coop s. coops. coops. coops.
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work-efficiency with the special cooperative groups is more vital than it is with the agricultural cooperatives. It is highly necessary and also easily achievable to accumulate capital rapidly for investment in trade, business and industries. It was not so easy and was not so urgently necessary in the beginning for the agricultural cooperatives to accumulate capital rapidly. Because if that would happen, though there was very little chance of that, the capital would remain idle and the marginal profitability of the capital would have been very low and would have worked as a disincentive to further capital accumulation.

The greatest need of the members of the agricultural cooperatives was to free themselves from exploitation of the money lenders and use more and more credit for productive purposes, the means of production being in their hands. The members of the special cooperatives have different types of problems. Besides the problem of exploitation by money lenders there was the added disadvantage that the means of production were not in their hands. To acquire that they needed larger Capital at once to start with. They had one advantage. They were wage-earners and so received cash every day. They could save more and faster compared to their counterparts in the agricultural cooperatives whose income was very low and seasonal and sometimes even the future income remained mortgaged to others.

Another feature can be observed from these figures. In the agricultural cooperatives, there is a slow but gradual increase of membership in the early years with a steep increase during the last two years, both in the parent universe and the sample. Such a uniformly increasing trend cannot be noticed either in the universe or in the sample of the SCSF cooperatives. In the beginning there was a rising tendency which came to a peak quickly in the year 1962-63 both in the universe and the sample. Then a gradual decline set in, followed by another rising trend in 1967-68.

Generally, taking all cooperatives together, the trend in membership size may be described as gradually increasing. There are two steep rises in membership size where the average number of members per cooperative has increased by 5 or more members. The years 1961-62 and 1966-67 are characterized by membership rise per cooperative. This may be due partly to the policy and official campaign of the central association to increase membership size and partly for other reasons. This increasing trend may be put to another scrutiny with the sample data--whether this increase is in any way associated with the age of the cooperatives. The following table arranges the data in a different way for the purpose. The figures in the left hand corners of each cell give the total number of members and in the right hand corners of each cell the total number of

cooperatives in that cell. The central figure is the average number of members per cooperative.

TABLE 8.--The average number of members per cooperative-old, intermediate and new. (The central figure gives average number of members per cooperative.)

_	Average Num	ber of Members per Co	operative
The end of the Periods	Old Coops (Started within the period 1959-62)	Intermediate Coops (Started within the period 1962-65)	New Coops (Started within the period 1965- 68)
1961-62	454 (11) 41		
1964-65	679 (11) 62	420 (13) 32	
1967 - 68	998 (10) 100	511 (12) 43	478 (11) 44

The old cooperatives which were established during the period of 1959-62 had an average membership strength of 41 at the end of the first period (1961-62). By the end of the second period it rose to 62, and it reached 100 by the end of the third period. The intermediate group of cooperatives started with 32 members per cooperative, which at the end of the last period rose to 43, showing a slower rate of increase in comparable time with the old group. The new group also started with a membership of 44 per cooperative at the end of 1967-68. From this we may infer that it is more likely that the old cooperatives grow faster in membership with time. The growth of intermediate and also possibly the new group of cooperatives is likely to be slower.

Capital Formation

Table 9 provides the parent data on the annual savings, share purchases and total capital formation (by adding savings and share pruchases together) under the two federations (ACF and SCSF). It shows that by 1967-68 the ACF cooperatives saved Rs. 553,616 and the SCSF cooperatives Rs. 40,064, the total savings being Rs. 593,680. In the same period, the ACF cooperatives purchased Rs. 549,108 worth of shares of the central association while the SCSF bought Rs. 309,590 worth, the total amount of share purchased being Rs. 858,698. These two totals give the total capital formation by the Comilla cooperatives at the end of 1967-68, which is Rs. 1,452,378. This capital is built by weekly deposits of a fraction of a rupee through a new rural banking system.

Capital formation of the sample cooperatives may be studied from Table 10, which shows the figures for the years 1959-60 to 1967-68. The total amount of

TABLE 9.	TABLE 9Annual savi under t	savings, share pu er the program (f	irchases, (figures are	purchases, and capital (figures are all cumula	apital formation cumulative from		by all the cooperatives year to year).
	Net	Net Savings (in F	Rs.)	Share Pu	Purchase (in	Rs.)	1
Year	ACF Coops.	sdoc	. By all Coops.	сн с	By SCSF Coops.	By all Coops.	rormation (Ks.) (Savings + Share)
(1)	(7)	(2)	(+)	וכו	(0)	(1)	(0)
1961–62	27,601	1,832	29,433	10,903	96†	11,399	4:0,832
1962-63	82,450	7,222	89,672	40°194	5,781	46,575	136,247
1953-64	150,825	21,672	172,497	68,678	18,131	86,809	259,306
1964–65	170 , 020	21 , 490	191,510	134,939	76,187	211,126	402,636
1965-66	202,290	26,171	228,461	213,611	195,656	409,267	637,728
1966-67	286,814	30,903	317,717	264,238	230,503	142 ° 464	912,458
1967-68	553,616	40°064	593,680	549,108	309,590	858,698	1,452,378
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TABLE 10.	TABLE 10Average	per member capit	al	formation in the sample co	cooperatives i	in various years	
Year	No. of coops.	Total Leposits by Coops. (cumulative)	Total share Purchase by Coops. (cumulative)	Average Capital Formation by each coop.	No. of Members per coop.	Average Capital Formation per Member	Average (per member) Capital Formation
(1)	(2)	(3)	(†)	(2)	(9)	(2)	101 cacin year (8)
1959-60	I	340.00	250.00	590.00	46	12.83	12.83
1960-61	۲-	6,711.39	2,505.00	1,316.63	36	36.57	23.74
1961-62	11	10 , 884.70	5,507.00	1,490.15	t 1	36.35	-0.22
1962-63	15	23,484.72	6,144.00	2,108.58	43	49.04	12.69
1963-64	19	28,391.60	53,007.00	4,284.14	L 4	91.15 .	42.11
1964-65	24	37,673.72	91,332.00	5,375.24	91	116.85	25.70
1965-66	24	43,551.81	14ć,217.00	7,907.00	48	164.73	47.88
1966–67	31	56,440.15	210,860.00	8,622.59	57	151.27	-13.46
1967-68	33	113 , 157.94	316,581.25	13,022.40	60	217.04	65.77
TOTAL Capital by the Sampl		Accumulation e Cooperatives	429,739.19				

savings and share purchases of these 33 cooperatives¹ by 1967-68 were Rs. 113,157.94 and Rs. 316,581.25 respectively, the total capital formation being Rs. 429,739.19. This is 30% of the total capital formed by all the cooperatives, which is again highly disproportionate (the sample size being approximately 10%). The reason for such a disproportionate figure lies with two special cooperatives who are far above the other cooperatives in terms of capital formation. These two cooperatives together (Deedar Sramik Cooperative and Motor Drivers' Cooperative) amassed Rs. 228,440 as their total capital which is 53% of the total capital accumulated by all the cooperatives (33) in the sample. Without any doubt, they have distorted the representative character of the sample. But for the purpose of the study, they may represent. together with a few other cooperatives, some very significant factors of development, which need analysis.

The table reveals some very interesting phases of capital formation during the period under study. The year 1962-63 has come out as a critical year reversing the trend of capital formation from 'more-savings-andless-share' to 'less-savings-and-more-share.' This

¹The yearly total cumulative figures and averages are calculated from the exact number of cooperatives existing during the period. The figures of the 2 disbanded cooperatives were not included in the cumulative figures or the averages after their withdrawal, which makes the total number of cooperatives 33 in 1967-68.

change needs some elaboration. The 'less-savings-andmore-share' from the year of 1963-64 heralds a new stage in organizational development of the KTCCA. Tt symbolizes the member-society's trust both in their own cooperative and in the central association, the stability of the central association in the judgment of the member-societies, the profitability of investment with the central association, and the thrust of the central association toward building more capital. In the beginning neither the PARD nor the KTCCA expected the 'less-savings-and-more-share' stage to come immediately. The PARD insisted only that there be 'small savings' (with no lower limit), while the villagers thought the most meaningful thing for the PARD would be to give "relief," or subsidy, or doles. Most of the villagers, under the effect of group influence, started depositing "small savings" but in the name of "subscriptions." The concept of saving was relevant only to private, personal and secret situations, not with public, group, and open sitautions. The only thing they knew of a similar situation was subscription or donation. It took quite an effort to make them understand that it is their own savings and the record is kept in their own pass books; and they are not giving it away as a subscription, fee, or donation. The emphasis was that if the cooperative

fizzled out, the members would get back their deposits intact. This was why the deposits were not subscriptions, fees, donations, or even collateral. The PARD was attempting to drive home only one simple concept of savings at that time. Gradually other ideas began to be emphasized: that services of all types cannot always be given free, that the central association also needs capital of its own, that the central association is their own association and not an outside agency, and that it will distribute dividends to the primary societies on the basis of the total amount of shares purchased. The year 1963-64 may be marked as the dawning of the concept that the central association is their own association and they have entered into a business situation where trust and capital play dominant roles.

Another aspect of capital formation can be observed by analyzing the trends of the average capital formation per member which is concealed in the average capital formation per cooperative. The average capital formation per cooperative has a distinctly increasing trend, starting at Rs. 590.00 in the year 1959-60, reaching Rs. 13,022,40 in the year 1967-68 on a cumulative basis. But if the average capital formation per member is worked out for each year, as has been done in the last column of the table, we see some interesting phenomena. The average per-member capital formation starts at

Rs. 12.83 in the year 1959-60, increases next year to Rs. 23.74, then suddenly decreases and goes to -Rs. 0.22 in the year 1961-62. An increasing trend can be seen from Rs. 12.69 in the year 1962-63 to Rs. 47.88 in the year 1965-66, then again quite abruptly the average per-member capital formation goes down to -Rs. 13.46 in 1966-67. The year 1967-68 shows a tremendous increase of average per-member capital formation to Rs. 65.77. Now those two years, 1961-62 and 1966-67, with negative figures mean that a depletion of capital occurred over the previous years' capital. They are characterized by sharp decline. They also evidently coincide with the years of sharp rise of membership size per cooperative (ref. page 102). There may be many factors responsible for such behavior in per-member capital formation. Testing a number of hypotheses to explain this phenomenon with some reliability may be required.

A few comments may be made in this regard. The years of rapidly increasing size of cooperatives may quite likely deplete the capital during the year because of the fact that their savings component might be very low, assuming that share purchase remains constant with both old and new members. The present requirement of the village cooperatives is that each member must buy a share of Rs. 10/- each year in addition to regular savings to remain a member of the village cooperative. However, how strictly this requirement is enforced cannot be guessed without studying real situations. Another explanation may be that some of the regular savers may save anywhere between Rs. 25 to Rs. 50 or more per year, which becomes a sizable amount after 4 or 5 years for its withdrawal for better investment elsewhere. This phenomenon is likely to happen to some extent on the average each year. Why there should be concentration of capital depeltion in those particular years may not be fully explained by this. It may be possible to shed more light on those two years' capital depletion after the loan issue and repayment figures are analyzed.

Loan Program

The figures on loan issue and loan repayment are also impressive. Table 11 has been compiled from the parent data to show the amount of loan issued annually to all the eligible cooperatives and their repayment. In the year 1961-62 a total of Rs. 238,664 was issued as loan with a gradual increment each year thereafter. The loan issued in 1967-68 alone was Rs. 5,274,110. During all these years from 1961-62, these cooperatives repaid an amount of Rs. 6,011,302 out of Rs. 11, 384,425, making the balance Rs. 5,373,123 outstanding, which is almost equal to the loan issued on the last year (1967-68). We may think of three stages in connection with the

TABLE 11	Position of loan	disbursement, loan by the		repayment, amount of outstanding cooperatives in various years.	loan and total	capital accumulated
Year	Loans Issued * (Rs.)	Total Loans Issued (R3.)	Loans Repaid (Es.)	Total Loans Repaid (Rs.)	Outstanding Amount of Loans (Rs.) (Cumulative)	Capital Accumulated b" the Coops. (Rs.)
(1)	(2)	(3)	(1)	(2)	(9)	(Cumulative) (7)
1961-62	235,664 3,000	238,664	6c,162 	60,162	178,502	40,832
1962-63	385,764 47,000	432,764	216,592 44,800	261,392	349,874	136,247
1963 - 64	519,789 288,536	808,325	286 ,7 56 49 ,51 3	336,269	821,930	259,306
1964-65	725,276 687,163	1,412,439	552,069 273,719	825,788	1,408,581	402,636
1965-66	795,984 501,975	1,297,659	654 , 541 260 , 752	926,293	1,780,247	637,728
1966-67	1,670,651 249,513	1,920,164	971,579 296,026	1,267,605	2,432,806	812 , 458
1967-68	4,244,477 1,029,633	5,274,110	1,801,777 532,066	2,333,793	5,373,123	1,452,378
TOTAL		11,384,425		6,011,302	5,373,123	1,452,378
Source:	*The two figures under eac The table is prepared by Cooperative Pilot Experim	th year in combining, aent, PARD,	columns 2 Tables 24 Comilla,	elate to ACF a of the Eighth ikistan, April	SCSF cooperatives nual Report, 1968 59, pp. 29-30.	respectively. of the Rural
Note:	The figure 4,029,079 has been corrected found in the cumulative balance of loan the last column (1967-68). This explain	has bee lve bala 7-68).	to in is t	4,029,179 in Table 24, p. Column (1962-63) which h he slight discrepancy of	<pre>page 29. The actual mists h has been carried over to ' of one figure in the above</pre>	The actual mistake may be carried over to 4,029,079 in cure in the above table.

loan disbursement. The first period may be taken as 1961-1964. During these years the loan disbursement each year was almost in geometric ratio--each year amounting to double the previous year. The second period starts from 1964-65 with almost double the amount of 1963-64. But at this point the increase was very slow and reached the final year of this period in 1966-67.

In 1965-66 the amount of loan disbursement even fell below the previous years' loan amount. Incidentally this year coincides with the war year (between India and Pakistan in September 1965) and may be characterized by a sense of caution in expanding the loan program. It can also be observed that the percentage of repayment of loan is high during this period. Incidentally, no breach occurred in the Gumti dam during this year, though the following year it occurred four times at various places, and since then has occurred every year till 1968. But still the outstanding amount of loan at the end of 1966-67 was Rs. 2,432,806, when the cumulative capital of all the cooperatives stood at Rs. 812,458.

The last stage starts again with a big jump from 1967-68 when the total amount of loan disbursement exceeded the previous year's loan amount by more than $2\frac{1}{2}$ times. The year 1967-68 is likely to be the first year of a new stage. Consolidation efforts may be seen

in the future so far as the loan program is concerned, as was observed in the previous stage. Similar phenomena with slight variations are also reflected in the sample data (Table 12).

Some stages may be discovered by similar scrutinizing of the sample data which follow closely the stages noticed in the parent data. But the stages in the sample arrange themselves more neatly because the sample covers from the very beginning whereas the parent data is likely to be somewhat squeezed in the beginning, since it starts only from 1961-62. The stages in the sample data may be marked as the periods form 1959-63, 1963-67 and 1967 on. By glancing through the table, these stages may be clearly seen in the amounts of loan issued.

During the first stage the amount of loan issued increased very rapidly from Rs. 24,424.75 in 1960-61 (excluding the solitary first case in 1959-60) to Rs. 93,147.25 in the year 1962-63. The second stage starts in 1963-64 at a higher level from Rs. 243,890.76. During this period the amount of loan issued remained relatively stable--quite unlike the previous period. The amount of loan disbursed in the year 1965-66, the war year, was even less than that of the previous year. The third stage seems to start from the year 1967-68 with a big increase in the amount of loan issued at Rs. 995,417.98, which is almost 4 times higher than

TABLE 12	12Loan issue, loan formation (cumula	repayment, outstanding loan (cum ative) of the sample cooperatives	ig loan (cumulative) an cooperatives in various) and total capital lous years.
Year (1)	Loans Issued (Rs.) (2)	Loans Repaid (Rs.) (3)	Loans Outstanding (Rs.) (Cumulative) (4)	Total Capital (Rs.) (Savings + Share) (Cumulative) (5)
1959–60	00°00°9	6,000.00	00.0	590.00
1960-61	24,424.75	7,045.00	17,379.75	9,216,39
1961 - 62	70,922.07	50,682.00	37,619.82	16,391.70
1962 - 63	93,147. 25	89,754.17	41,012.90	31,628.72
1963-64	243,890.76	133,004.83	151,898.83	81,398.60
1964 - 65	359,722.21	259,160.62	252,460.42	129,005.72
1965 - 66	250,367.66	260,591.02	242,237.06	189,768.81
1966 - 67	257,084.50	244,398.22	254,923.34	267,300.15
1967-68	995,417.98	356,514.28	893,827.04	429,739.19

that of the previous year. It is quite likely that this stage will continue for a few years more.

It is too early to say anything about this particular stage. However, judging from the trend of the earlier data, some predictions about the stage may be possible. The amount of loan issued will form again a stable base with some fluctuations near a ceiling of about Rs. 1,000,000 or slightly more for about two or three years. This will enable the cooperatives to catch up with their deficits with increasingly higher capital formation and higher rates of loan repayment.

In a relatively flood-free year the cooperatives are in a position to repay a larger proportion of what they have received the same year. From 1961-68 there were only two years when the Gumti dam was not breached and those two years, 1962-63 and 1965-66, were characterized by maximum proportional repayment. In 1962-63 the sample cooperatives received loans to the extent of Rs. 93,147.25 and repaid at the end of the same year Rs. 89,754.17. In the second flood-free year, 1965-66, the cooperatives received loans to the extent of Rs. 250,367.66 and repaid at the end of the same year Rs. 260,591.02. This is the first year that the cooperatives paid off more than the amount received as loan the same year. At the same time they added to their capital accumulation.

The depletion of capital as seen in the years 1961-62 and 1966-67, referred to previously, cannot be fairly explained from the loan figures, except that during those years the cooperatives were under high pressure for loan repayment. Interestingly enough, their absolute capital accumulation during those years was also quite high, so high as to dispel the idea of any possibility that per-member capital depletion could This is discovered only when the column for occur. per-member cpaital formation is worked out. It may be possible that since the absolute amount of capital per cooperative is a functional index for assessing the credit-worthiness and hence the upper ceiling of loan for the group, the village cooperatives, whenever they feel the need for boosting up the capital, start campaigning for getting more members and thereby raising the total capital (from the share money and whatever savings the new members could make.) But in the process the per-member capital formation is depleted.

There may be another explanation. Whenever the cooperative faces a crisis of non-repayment on a limited scale, the cooperative may get interested in bringing in a fresh supply of new members with implicit promises of future loans from the central association. The share money realized from these members is sometimes manipulated by the leaders of the cooperative with consent of the members and is balanced against outstanding loans, thus rescuing the reputation of the cooperative and restoring the credit-worthiness of the society.

Loans are not offered to individual members by the central association. The central association advances the loan in a lump to the account of the village cooperative and the village cooperative allots the individual loans on the merit of each case. So even if others' share money is utilized in repaying (defaulting) loans, the loanee still remains responsible to the village cooperative for repayment. Some of the more successful cooperatives keep a limited capital as savings and share purchase with the accounts of the central association so as to make them eligible to get their minimum credit needs. The rest of the capital is utilized by them separately in other more profitable projects.

All these processes certainly have some bearing on per-member capital depletion. The occurrence of permember capital depletion only in those particular years may be the result of pushing the policy of increasing membership or of increasing capital, so that a larger amount of loan may be released in the near future. From the fact that the two big pushes to extend the loan program came within one or two years of this per-member

capital depletion (or increase of absolute capital, or increase of per-cooperative membership, or decrease of outstanding loan amounts), one may infer that the impact of policy decisions for future loan expansion programs may culminate to force an increase of absolute capital in those two years depleting the per-member capital of the cooperative.

If one goes carefully through the column of loan figures each year and also the columns of total capital accumulated by the cooperatives and the amount of outstanding loan in the previous year both for the total population and the sample, one can see that the amount of loan money each year always exceeds the amount of outstanding loan of the previous year, with the exception of the year 1965-66, both in the universe and the sample. One can also see that the total capital is growing. In the sample, for the first time in 1966-67, the total capital accumulated by the sample cooperatives exceeded the outstanding loan amount, which is probably the ideal for this type of 'pump-priming program.' A similar phenomenon happened in the year 1962-63 when the sample cooperatives accumulated a capital of Rs. 31,628.72, very close to the outstanding amount of loan Rs. 41,012.90 of that year. These years seem to indicate some healthy signs of growth so far as absolute capital of all the cooperatives are concerned, and the beginning of a new stage of an enhanced loan program is seen just after

these years. But this should not be so simply inter-The issue is involved. The capital may not preted. increase the same way it increases now in the village cooperatives unless there is a sure indication that the next year's loan program will be at least as big as this year's, if not bigger. The moment the news is out that the loan programs will be drastically reduced in future years, it is likely that the percentages of loan default cases will increase, because they cannot afford to be without credit facilities the next year after payment of the current dues. The prospect of enrolling new members will decrease, because they will see the cooperative will not be in a position to get more loans next year, and quickly the group morale will go down and the cooperative will face a crisis.

In the other case when the loan program is expanding every year with a reasonable trend, the borrower is interested in paying back his loans, though the utilization of the loan in the particular case may not have given expected economic returns. He hopes that this will increase the chance of getting fresh loans. In this process a particular borrower in the period of two, three or four years learns how to use the loan money most effectively and gradually makes the use of his loan most efficient and so he becomes committed to the program.

While he is doing this other villagers also get interested in the cooperative program and join it by buying shares which are non-refundable. When the loan program goes uninterrupted these new members put pressure on the old members to repay their loans, so that the cooperative may get more fresh loans for the new members or for those who did not take loans previously. This helps to build up a group pressure and a sense of discipline in the group. In this way the villager also learns to repay his loan in time in consideration of others' needs so that a system of true self-supervision of credit may emerge from the group. Probably this can be done more effectively by stages going from one stage of loan program to a higher stage of loan program and consolidating the position there within a period of 3 or 4 years for a new spurt in the future.

The question is how fast the loan program has to be expanded and how long it should go. This largely depends on the amount of loanable money available, the nature of the investment of the loan money, the time required to develop group habits and discipline and the trust and good will throughout the entire organization. It is a risky but necessary part of the whole scheme. One has to go on with the 'pump priming,' till the system catches on. There is no stopping in the process, even if the muscles are aching. Maybe a

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little more priming will make the system move or even become self-propelling. In such a situation stopping means foregoing the benefits of all the investments so far made. But this is not meant to suggest that one should go on in this pump-priming business without assessing or observing other symptoms which would indicate whether it will move at all.

In this particular case, it seems that the clear symptoms of increasing capital formation, increasing effort to repay old loans and increasing possibility of effective loan utilization process and a conscious effort to maximize the production function by reducing cost, improving techniques, or shifting to new production means as described in the next section, are indicators of an effective pump-priming system. This pump-priming of loans is again linked with the overall incentive system which will be discussed later.

Projects of the Village Cooperatives

The main trends of the activities of the village cooperatives can be understood by studying the various action programs undertaken, which are known as 'projects.' The village cooperative societies are engaged at Comilla in what may be called the collective adoption of innovations and their group management. The decision to undertake a project is made jointly by the cooperative group and in most cases it needs joint

efforts by the members to make it successful. It is natural to assume that the success of the group process will depend largely on other socio-psychological contextual variables within the village communities. The 'inputs' from the central association to support these projects may be considered as uniform to the extent that they are planned to be equally applicable and equally profitable to all of the cooperatives. But the impact of these inputs varies depending on the cooperative group and its other relevant contextual variables unique to itself. The carefully designed and controlled inputs of the Comilla program, supposed to be uniformly distributed over the entire client system, are the following as noted by Rahim.¹

- The nature and availability of basic information about the innovations, through formal channels of communication.
- (2) The nature and availability of services and supplies needed for the adoption of the innovations.
- (3) The influence of the government extension program.
- (4) The applicability and the profitability of an innovation to the cooperative societies.
- (5) The type of agriculture.

Besides this relatively constant nature of inputs there are also constraints put by the central

¹Syed A. Rahim, "Diffusion of Innovations in a Development System: A Study of Collective Adoption of Innovations by Village Cooperatives in Pakistan," (unpublished Ph.D. thesis, Michigan State University, 1968), pp. 40-41.

association, which are also equally applicable to all the cooperatives. These are some of the conditions which the village cooperatives must of necessity fulfill (accept) to be considered as a member-society of the federation. They are:

- Establishing the cooperative according to the cooperative by-laws and seeking affiliation with the central association.
- 2. Insuring regular attendance of the members in the weekly meeting of the village cooperative.
- Building capital through regular (weekly) savings and (annual) share purchases.
- Receiving loans for various purposes jointly endorsed by the cooperative group and the central association.
- 5. Receiving regular and periodic agricultural and management training by the cooperative leaders and members.

These "conditions" may be considered as projects. They are some of the minimum conditions set by the central association. But they are full-fledged projects for the village cooperatives, since their organizational efforts have to be constantly directed to these issues to achieve a minimum satisfactory level of success as approved by the central association, for their continued affiliation and survival. A list of various projects undertaken by the cooperatives of the sample may be given. Emphases on different policies in formulating various types of projects for introduction in the client system can be seen reflected in the projects undertaken by the village cooperatives each year. The following projects describe the various activities undertaken by the sample cooperatives. Some were directly implemented, but most of them were implemented in sub-parts gradually aiming toward the main project through a process of maturation. The indented parts below (as described by the individual cooperatives), are the sub-parts from which the main projects have been identified.

General description of the main projects .--

A. Improved methods of paddy cultivation (I.M.PDY.C)

Learning improved methods of cultivation Japanese method of cultivation "Amon" paddy cultivation Line-sowing and use of fertilizers

B. Improved methods of potato cultivation (I.M.PTTO.C.)

Potato cultivation Improved potato seeds (foreign) Cultivation of improved potato seeds

C. Cultivation of new vegetables and watermelon (N.VEG-W.M.)

Cultivation of new vegetables (cabbage, cauliflower, carrot, tomatoes, cucumbers, etc.) Cultivation of improved watermelon (American and Japanese)

D. Seed selection and multiplication (SEED.S-MULTPLN.) Seed project Cultivation of improved variety of paddy seeds (PAJAM, IRRI, etc.) Cultivation of improved seeds (Japanese watermelon, Holland's potatoes, etc.) Ε. Irrigation and raising of third crops (IRG. 3RD. CRP.) Sinking of tube-wells Use of pump for irrigation Improved methods for third crop cultivation (irrigation) F. Mechanization of agriculture-use of tractors, weeders and sprayers (MECHD. AGR.) Land cultivation by tractor Tractor-use Use of machines (sprayer and weeders) Joint marketing and storage (JT. MARKTG.) G. Joint storage of agricultural produce Joint marketing of agricultural produce and crafts Vegetable business through the cooperative Joint stocking in cold storage Paddy and thatching grass business Joint business of hides and skins Blood processing business Furniture business Show-case advertisement for promoting business Rickshaw purchase Η. Procuring land through loan program of the cooperative (LND. THRU. LOAN) Renting land for cultivation Releasing land from mortgage Receiving land through mortgage (or buying outright) Ι. Projects on fishery and live-stock (FISH.-L.STK) Pisciculture

Poultry raising

Improved cows and bullocks

- J. Women's program (WMN-PRGM)
- K. Education program (EDN-PRGM)

Adult Education Imam teachers' program Feeder school program

- L. Family planning (FAMI-PLNG PRGM)
- M. Establishing various industries (INDUSTRIES)

Wheat crushing mills Rice mills Brick burning project Bucket manufacturing Rickshaw assembling and parts business

N. Arranging various kinds of training other than agriculture (NON-AGRI-TRAING)

Training from EPSIC (RIS)¹ Charkha training Dai (Mid-wives') training Adult Education training

- 0. Food loan (FOOD LOAN)
- P. Others (OTHERS)

Constructing office-room of the cooperative etc.

Patterns of project planning.--The pattern of project planning of the village cooperatives over years has been shown in Figure 4. The abbreviations of the projects have been used for convenience of following the patterns visually.

¹RIS (Rural Industrial Service) is a branch of EPSIC (East Pakistan Small Industries Corporation).

YEAR	PROJECTS	YEAR	PROJECTS
1959-60	A. I.M.PDY.C. E. IRG. 3RD. CRP. F. MECHD. AGR. K. EDN.PRGM.		B. I.M.PTTP.C. C. N. VEGW.M. E. IRG. 3RD. CRP. F. MECHD. AGR.
1960-61	A. I.M.PDY.C. B. I.M.PTTO.C. E. IRG. 3RD. CRP. F. MECHD. AGR. G. JT. MRKTG. J. WMN. PRGM.		G. JT. MARKTG. J. WMN. PRGM. K. EDN. PRGM. L. FAMI. PLNG. PRGM. M. INDUSTRIES O. FOOD LOAN
1961 - 62	 M. INDUSTRIES A. I.M.PDY.C. B. I.M.PTTO.C. C. N. VEGW.M. E. IRG. 3RD. CRP. F. MECHD. AGR. G. JT. MARKTG. I. FISHL.STK. K. EDN. PRGM. 	1965-66	 B. I.M.PTTO.C. C. N. VEGW.M. D. SEED.SMULTPLN. E. IRG. 3RD. CRP. F. MECHD. AGR. H. LND. THRU. LOAN J. WMN. PRGM. K. EDN. PRGM. L. FAMI. PLNG. PRGM.
1962-63	A. I.M.PDY.C. C. N. VEGW.M. D. SEED.SMULTPLN. G. JT. MARKTG. H. LND. THRU LOAN I. FISH-L.STK. J. WMN. PRGM. K. EDN. PRGM. M. INDUSTRIES. N. NON-AGR. TRAING. O. FOOD LOAN	1966-67	 A. I.M.PDY.C. B. I.M.PTTO.C. D. SEED.SMULTPLN. E. IRG. 3RD. CRP. F. MECHD. AGR. G. JT. MARKTG. H. LND. THRU. LOAN I. FISHL.STK. J. WMN. PRGM. K. EDN. PRGM. M. INDUSTRIES O. FOOD LOAN
	 B. I.M.PTTO.C. E. IRG. 3RD. CRP. F. MECHD. AGR. G. JT. MARKTG. J. WMN. PRGM. K. EDN. PRGM. L. FAMI. PLNG. PRGM. M. INDUSTRIES O. FOOD LOAN 	1967–68	 B. I.M.PTTO.C. C. N. VEGW.M. D. SEED.S-MULTPLN. E. IRG. 3RD. CRP. G. JT. MARKTG. H. LND. THRU. LOAN I. FISHL.STK. K. EDN. PRGM.
1964-65	A. I.M.PDY.C.		L. FAMI. PLNG. PRGM.

Figure 4.--Patterns of Project Planning.

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Some very important processes of project planning may be discovered by going through this project list. The project, 'Improved methods of paddy cultivation' (I.M. PDY. C.), was among the earliest programs and it consistently remained popular through 1967-68. But in the later stage, it became increasingly involved with other new projects which are largely dependent on either successful adoption of this project or are extended forms of the same project. Some examples of this are Improved methods of potato cultivation (I.M. PTTO. C.), Irrigation and raising of third crops (IRG. 3RD. CRP.), Mechanization of agriculture--tractors, weeders and sprayers (MECHD. AGR.), and Cultivation of new vegetables and watermelon (N. VEG.-W.M.). The following categories of projects are among the most frequent over the entire period:

- A. 1. Improved methods of paddy cultivation.
 - 2. Improved methods of potato cultivation.
- B. 1. Irrigation and raising of third crops.
 - 2. Mechanization of agriculture--use of tractors, weeders and sprayers.
- C. l. Joint marketing and storage.
- D. 1. Education program.
 - 2. Women's program.

The first three categories reinforce one another and so go almost hand in hand. The fourth category comprising the education program and women's program has a more cultural bias. The value of education was acceptable to the village not so much for the development of agriculture but as an opportunity to earn money from white-collar jobs. But the value of women's emancipation was not accepted so readily. By necessity it had to be started with heavy economic incentives. It will be found later in our analysis that the women's program still remains a poor-village program dominant for economic values and very weak on cultural values prevailing among the middle classes of the rural society.

The education program was started from the beginning and was supported by the PARD or outside funds. The women's program was also started from the second year and was completely supported by the PARD and outside funds. Only recently are these programs getting roots and showing promise of being acceptable in the near future to the same extent as other successful projects. Functional education is showing up as an asset for efficient management of farm affairs. The health and maternity problems of the women, family planning, and training of the women in various skills are getting more and more attractive, meaningful and profitable to the women. The women's program will be further discussed in the section of factor analysis.

The next frequent projects over the entire period fall under two categories:

I. Cultivation of new vegetables and watermelons.

II. Establishing various industries.

The first one relates to the agricultural cooperatives and the second one mostly to the special cooperatives, but not excluding the agricultural cooperatives. There is every possibility that these two projects will flourish more and more in the future. The newly set-up seed-testing laboratory, the extended and improved storage of agricultural produce and increased availability of power for setting up industries of various scales are already indications of the future.

The family planning project is mentioned by the village cooperatives as the last new project, though it started being mentioned from the year 1963-64. Interestingly, the villagers think that no new projects have been introduced since 1964-65 after the family planning project. It is true that no basically different type of project has been introduced from 1964-65 in the list of projects of the village cooperatives. The recently introduced high yielding variety of paddy with complete control of water facilities, both surface and sub-soil, is not considered as a new project but rather an elaboration of two or three other projects previously introduced and gradually extended to the present state. This state of "no-new-projects" from 1964-65 will be discussed further in a later chapter.

Some other important trends will be revealed if the list of projects is studied along with the list of loan utilization by the cooperatives (not included in the main body of the dissertation). The "symbolic" line-sowing of the Japanese method started with the amon paddy cultivation (amon paddy is the traditional autumn crop, known as "winter paddy") which is transplanted in wet fields. The village cooperatives received seasonal loans for amon, aus and boro paddy (aus paddy is harvested in the rainy season, June-July; amon is immediately transplanted after aus and is harvested in Nov.-Dec.; and boro comes in-between amon and aus when the weather is very dry.) The farmers started getting practically equal loans for amon and aus. But the aus crop was susceptible to damage by flood from the almost regular yearly breach of the Gumti dam. The greater the investment in the aus crop, the greater is the impoverishment after the flood. So it became an official policy to emphasize the shifting from aus harvest, to boro harvest during the dry season by irrigated water. Though the boro crop would need more investment, its return is not hazardous and in the long run would pay better. This policy can be seen reflected in the loan programs and also in the project I.M.PDY.C. where boro cultivation was getting more and more popular. This shift to the less risky and more expensive season for agriculture has been gradually responsible for expanding the power irrigation program for water and highyielding varieties to compensate for cost.

Another observation is that though cultivation of potatoes and other vegetables started from the very beginning, the potato cultivation seems to be gradually getting more popular, as indicated by the greater number of potato loans. On the other hand, loans for other kinds of vegetables in the sample cooperatives stopped altogether after the first year till 1966-67. If this trend is true the explanation may be that with the increasing storage and marketing facilities for potatoes, the cultivation of potato, as a cash crop, increased at a high rate raising more demands for potato loans than loans for other vegetables.

Another interesting observation is that the food loan has declined since the third year in 1963-64 with one occurrence in 1966-67, though it was never so widespread even in the early stage. Instead a steady increase of loans under the "land through loan program" is very prominent. This loan program started in the first year in 1962-63 to help the members to release their mortgaged lands from the money-lenders, and continued to be offered every year. Later from 1964-65 this loan program was extended for renting additional land to bring under improved cultivation. But now since the loan money can be used by the

farmers at their own discretion¹ and at their own risk, some farmers prefer to invest their loan money to acquire mortgaged land or to buy others' land. This is a very interesting turn of events and will be discussed in later analysis.

With the increase of the special type of cooperatives and also with the increasing business interest of some of the agricultural cooperatives, more and more loan money is issued for projects relating to trade, business and small scale industries.

The description of the village cooperatives with their various projects is not complete without a brief sketch of the central association (KTCCA).

The Kotwali Thana Central Cooperative Association (KTCCA)

The origin of the Comilla cooperative experiment and its growth till June, 1961 are described in the first annual report entitled "A New Cooperative System for Comilla Thana" written by Dr. H. W. Fairchild and Mr. Shamsul Huq.² This experiment attracted the attention of the Central Ministry

²H. W. Fairchild and Shamsul Huq, <u>A New Cooperative</u> System for Comilla Thana, First Annual Report, PARD, 1961.

¹Formerly loans were issued to the cooperative on the basis of a production plan jointly made by the members of the cooperative and approved by the central association. Recently the loan issuing policy has changed from the production plan assessment to the upper ceiling limit assessment. The later policy determines the upper ceiling limit of loans for a particular cooperative not to exceed five times its accumulated capital, depending of course on the past transaction records of the cooperative.

of Agriculture. The PARD director was invited to present a detailed scheme before the committee appointed by the cabinet for advising on the possibilities of introducing cooperative farming and mechanization in rural areas. In their report the committee commended the Comilla project and recommended its expansion so that it would cover at least one entire thana.¹

Accordingly the scheme entitled "Introduction of Mechanized Farming on Cooperative Basis in Comilla," after some revision and amendment, was approved on January 11, 1962. "The Comilla project proposed a way out of the dilemma between the economically weak small village cooperative and the multi-village cooperative which was lacking in social and psychological cohesion, by establishing a large number of primary groups based on single villages, and federating them into a powerful central association. Each strengthens and sustains the Each performs a well defined task and function."2 other. This association was registered as a federation of village societies (primary cooperative societies) on January 26, 1962 as the Kotwali Thana Central Cooperative Association (KTCCA), the functions of which have already been discussed in Chapter I.

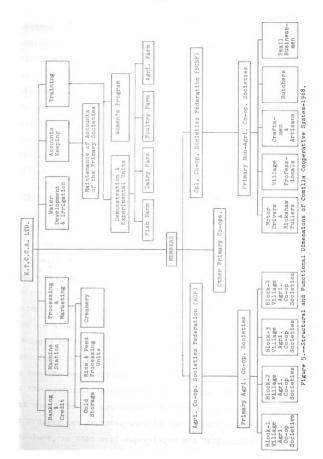
¹Akhter Hameed Khan, Progress Report on the Comilla Cooperative Project, June 1962, Second Annual Report--A <u>New Cooperative System for Comilla Thana</u>, H. W. Fairchild and Zakir Hossain, PARD 1962-63, Appendix D.

²<u>Ibid.</u>, p. (D-4)

This scheme was estimated to cost Rs. 4,869,000.00 for five years. The expenditure for salary of staff, mainly organizational and for training amounting to Rs. 951,000.00 was a grant; the remaining Rs. 3,918,000.00 was a loan payable by installments from the fourth year. The Ford Foundation contributed the major share of the finances except the salary of the staff and contingencies which total Rs. 3,933,000.00. The scheme was drawn in such a way that it was expected to be self-sufficient after the first five years and would also repay its loans received in the first five years by installments spread over a number of years.

With the growth of volume of operation of the KTCCA, it became necessary to form separate federations for agricultural and non-agricultural societies. The Special Cooperative Societies' Federation (SCSF) was registered in October, 1964 and the Agricultural Cooperatives' Federation (ACF) was registered on July 2, 1966. The primary societies are now attached to the KTCCA through their own federations. With the creation of two federations in the middle level, it became necessary for a few primary societies to join the KTCCA directly. This shift from a two-tier to a three-tier system became a necessity for the program's ever-expanding activities of numerous types involving various groups (Ref. Figure 5).

In the later part of 1967-68, the KTCCA managing committee decided to transfer its cold storage and the



creamery units to a newly formed cooperative federation called Comilla Industrial Cooperatives Federation (CICF), which is yet to be registered. A new trust has just been formed, named "Danish Cooperative Trust Fund", which will provide four foreign experts for the creamery, poultry, marketing and maintenance sections respectively, equipment worth 9,000,000 kroners for the creamery and poultry units and also some other benefits for the cooperative workers. The KTCCA is now well on its way to selfsufficiency as was hoped.

Various Projects Reinforcing KTCCA Objectives

A general idea of the various activities of the KTCCA may be given by naming the important projects or experiments. It is very difficult to make a meaningful sequence of all these multifarious activities. Most of them started in a simple way depending on the availability of resources and the prospect of the people's acceptance. Gradually these projects became both more complex and more intricately linked with one another. This is how the sets of complementarities developed at various stages of development. The KTCCA in expanding the frontiers of its activities always questioning how the profitability of the project can be increased, how the distribution of profit can be made more equitable, what should be the appropriate incentive systems, and how the process can be integrated in their institutional structure, so that self-supervision and self-control take

place. It also questioned how best the complex of the KTCCA program might be benefited by the programs of government and other agencies. In this pursuit the PARD's help was immense. As a matter of fact what KTCCA was doing for the village cooperatives for their stability and welfare, the PARD was also doing with the same spirit to make the KTCCA on-going and self-sufficient. The indication of the success of this process lies in the fact that KTCCA is now almost self-sufficient. With the increasing growth of the KTCCA, the PARD's role is constantly being adjusted for new meaningful roles. In the following list of projects, some of them are still PARD programs or programs of the thana council or of a composite body including PARD and other outside governmental or non-governmental agencies. The rural development of Comilla thana is not going to be an independent program of one organization, however big it may The KTCCA represents the development of the private be. sector. There is also the public sector--the government departments and the local self-government units. There should also be non-profit research organizations and non-profit voluntary organizations in other fields.

Following is the list of projects under the Comilla program participated in by the KTCCA at various times, arranged in one particular order, though it could be done in other ways too. Some of them have proved to be futile and have probably been forgotten. Some of them have changed so much since their first introduction that they may not be

readily recognized as belonging to the original project and some of them are so new that they have not yet reached their optimum functionality. The list is:

Improved Methods of Agriculture:

- 1. Line-sowing in paddy cultivation (Japanese method.)
- 2. Cultivation of winter vegetables.
- 3. Irrigation by pumps.
- 4. Soil testing by simple agronomical kits.
- 5. Fertilizer use.
- 6. Preparation of compost heaps.
- 7. Seed treatment and selection.
- 8. Introduction of better local seeds of paddy.
- 9. Land preparation and tractor ploughing.
- Mechanized unit with tractors, pumps, sprayers, weeders and threshers.

(Initial stage of improved agriculture).

Mechanization and Shifted Emphasis from Flood-affected Aus to Irrigated Winter Crops:

- 1. Cultivation of vegetables and potatoes.
 - i) American varieties
 - ii) Japanese varieties
 - iii) Chinese varieties
 - iv) Local and Indian varieties

(Out of these different varieties, some of the vegetables have come to stay permanently in the Comilla agricultural pattern as 'cash-crops'. These are--potatoes, watermelon, Louisiana ladies-fingers (okra), tomatoes, cauliflowers, cabbage and some others.)

2. Experimentation with sinking of tube-wells $(2\frac{1}{2})^{\prime\prime}$ diameter) for irrigation.

(More emphasis on the best use of surface and underground water by diesel power in the absence of electric power.)

> Experimentation with boring of 6" tube-wells for perennial supply of underground water for irrigation.

(Monagram, South Rampur, Kalikapur Cooperatives got their tube-wells.)

- 4. PARD-WAPDA (Water and Power Development Authority) collaboration gave shape to 'Sonaichari gravity flow from Gumti' project.
- 5. PARD-WAPDA collaboration installed power transformers for tube-well irrigation from the main hydro-electric transmission line passing over the Comilla thana.
- Increase of inputs in agriculture--water, better seed, fertilizer, plant protection measures.

(PARD started cost and return studies on various crops and discovered the profitability of using the improved methods has reached its ceiling. No further input in the known form will increase the profit any more.)

Introduction of Seed Technology:

 IRRI (from the name International Rice Research Institute, Manila), a high-yielding variety of paddy introduced.

(An experiment was conducted on 302 varieties of paddy imported from IRRI.)

 Seed multiplication of IRRI varieties through selected village societies under guaranteed coverage of minimum yield.

(Bishnapur-Krishnapur, Monagram, Sreemantapur, Bardoil Cooperatives started this project with assurance of supervised loans and all other services.)

- 3. Taipei, IRRI, and Pajam paddy seeds introduced.
- 4. Registered seed growers--seed program.

(KTCCA took up the certified seed distribution project and the East Pakistan Agriculture Development Corporation took responsibility for storage of the seed.)

5. Seed multiplication and experimental block for potatoes and other vegetables.

(Kamalapur Cooperative)

- 6. Seed testing laboratory.
- 7. Rice and non-rice research with the PARD.

Building of Infrastructure:

- 1. Rural Works Program
- 2. Thana Irrigation Program (TIP)
- 3. School Works Program

Cooperative Farming:

(Experimented in Deedar, Bishnapur-Krishnapur and Kamalapur Societies.)

Storage and Marketing:

- Joint marketing of vegetables by village cooperatives.
- 2. 'Rice-gola' project, and buffer stock of food
 (Food Bank.)
- 3. Bamboo and 'Chan' (thatching grass) society.
- 4. Better seed.
- 5. Joint purchase of consumers' goods for the village cooperatives, and consumers' stores in the KTCCA.
- 6. Cold storage for table potatoes and seed potatoes.
- 7. Central cooperative stores.
- 8. Newsprint supply.
- 9. Ready-made garments for women's section.

Agro-industrial Projects:

- 1. Various processing units:
 - i) creamery
 - ii) poultry
 - iii) dairy
- 2. Paddy boiler.
- 3. Rice mills.
- 4. Poultry feed processing.
- 5. Bone-crushing project.
- 6. Blood processing for poultry feed.

- 'Ambar charkha' project (an improved spinning wheel).
- 8. Ice plant.
- 9. Cooperative press.

Health Projects:

- 1. Maternity and child care clinic.
- 2. Family planning project.
- 3. Nutrition program.
- 4. Rural Latrines (water-sealed).

Women's Program:

- 1. Poultry raising.
- 2. Sericulture.
- Women's joining in the village cooperatives with men.
- 4. Kitchen gardening.
- 5. Other business and economic projects.
- 6. Commissioned agencies.

Adult Education:

- 1. Women teachers for female education.
- 2. Imam teachers' program.

School Program:

- 1. Youth club program.
- 2. School works program.
- 3. Feeder schools in the village.

Training and Extension Education:

- 1. Training for organizers.
- 2. Training for model farmers.
- 3. Training for accountants.
- 4. Training for tractor and pump drivers.
- 5. Training for mechanics.
- 6. Training for inspectors.
- 7. Village training centers.
- 8. Village demonstration plots.
- 9. 'Hat' (village market) meeting.
- 10. Regional rallies of the cooperative societies.

Miscellaneous:

1. Beef-fattening project.

(KTCCA experimented on the project and it was also tried in a village cooperative, Bardoil.)

- 2. Apiary project.
- 3. Fish-spawning in a closed tank.
- 4. Audit of village societies.

The above list of projects indicates the range of activities and the need for collaboration by certain technical departments. Most of them started as small pilot projects either from the PARD's research budget or from special grants by the departments concerned. All these projects came into being as a result of fresh thinking in attempting to solve the age-old problems of

the rural communities. The local people were involved in planning these projects with the local departmental officials; and the local and governmental resources were pooled in addition to special research grants to supplement their efforts. All these action-oriented efforts in a small thana created a new atmosphere of hope, cooperation, participation and learning, which dispelled some of the old psychological inhibitions. With the success of most of these projects and the acceptance of some of them by the government for the whole province or the district, the people began to get enthusiastic. Most of them started thinking that this new program was going to usher in a new age of rural development and they must not miss this opportunity. This awareness spread all over the thana in the form of a movement which has now spread far beyond the thana, almost forcing Comilla to show the path ahead. A force to open up the ancient system has been generated from within.

The strategies involved in the program will be discussed in the next chapter. Both the two types of data collected through the inventories and case studies as well as the questionnaire-interviews have been exclusively used for the purpose.

CHAPTER VI

STRATEGIES OF THE COMILLA PROGRAM

Introduction

This chapter is developed chiefly from the inventories and case studies prepared on various organizations and projects. The data collected through questionnaireinterview were also extensively used. The chapter deals mostly with the abstractions derived from various kinds of data, which could not be presented in the chapter due to lack of space. However, the support of data was given whenever it was absolutely necessary.

The PARD will be referred to as the "change agent," which has an autonomous role with the government, though somewhat restricted in its work in the macro-structure at the national level. The village communities organized as village cooperatives will be referred to as the "client system," which represents the most vital part of the microstructure. The "change forces" are called to play upon the micro-structure within the given limits of the overall macro-structure. These change forces build up into a dynamic system through a social process, which extends

beyond the sphere of micro-structure and creates tension to modify the macro-structure for the most efficient fulfillment of the change objectives in the microstructures at local levels. The micro-macro linkage through this social process will be discussed in the next chapter. This interactive social process involves the PARD, people in the communities, the old and new institutions, and the government. The change forces are being exerted at each level of participation and are consequently shaping the "change objectives" and realization of "change goals." The institutional relationships evolved along with the change process in the micro-setting will be discussed in greater detail in the next chapter.

The Comilla program has grown both in its internal organizational structures and functions and external relationships with other institutions, including government and foreign technical assistance programs. In spite of its complicated nature and an amazing accommodating power with various compliance patterns within its sphere of activities, some simple principles may be discovered which are basic to the entire system. Some of those important principles in the form of strategies which seem to have a strong and pervasive influence in shaping the entire program will be discussed. The order of their

appearance may not be taken as sequential or based on priority.

Socio-Psychological Strategy

Group Approach: Village Council Vs. Special Interest Groups

The most obvious pattern that emerges from studying the program is its avowed reliance on a group approach. It seems as if the entire program is committed not to any predetermined work-projects, but to a method of work, which not only does the work but also serves as stimuli for further work and cooperation. The method of work, which both carries on the particular work and creates a socio-psychological environment for further work and cooperation, determines the kind of group approach to be taken in each particular situation. This makes the whole system experimental, always searching for the best method of group work in the situational context, which ensures not only the completion of the work, but also a perpetual striving to work at a higher level of achievement and cooperate at a higher level of complexity with increasing satisfaction.

The Village-AID program encouraged formation of village councils by the villagers for community decisionmaking, and for assisting individual innovators or groups in various fields through the village council by providing technical know-how, materials and supplies. The work was accomplished through self-help projects, mutual-help projects or aided self-help projects. The ideas of community feeling, democratic decision-making, and group participation failed since they were not based on the real situations prevailing in the villages of East Pakistan.

The villages were highly disorganized, torn by factions and vested interests as described earlier. Though in some communities there was a kind of village samaj (panchayet with village sarders), and a kind of community feeling in some social or religious fields, still it was highly misleading to think that these positive aspects of the village community would also automatically enhance the economic activities, democratic participation in the modern sense and welfare for everybody. But, to continue with the Village-AID program for financial gains, fake village councils were organized. The villagers started dual roles -one with the Village-AID officials and the other with their own people. So in spite of the intentions of the Village-AID program to make the people rely on self-help and mutual help leading them to a self-sustaining stage, the program carried them towards expecting more relief, doles, etc. ensuring the inevitability of termination of the project in case the doles were withdrawn.

The PARD in its first year of contact with the villagers of Comilla realized the futility of such efforts. Instead of forming the so-called village council, which is, of course, a kind of group approach, the PARD started exploring another kind of group approach which gained ground during the first contact conferences with various groups of villagers, such as teachers, imams (religious leaders), farmers, potters, weavers, wageearners, youth leaders, chairmen and secretaries of Union Multipurpose Cooperatives, village doctors, etc. The PARD found that these special interest groups were more enthusiastic about improving their own conditions and were ready to sacrifice and work harder for future gains. This ultimately was found to be the most workable method to start with in the villages of Comilla.

The farmers were ready to attend training sessions on improved methods of cultivation without any training allowances. They were found to be interested in implementing the improved methods without the assurance of a free supply of seeds, fertilizers, etc. So, instead of working with village councils, the PARD shifted its plan of work to village cooperatives--for farmers, potters, weavers, and other groups.

It was realized that this opportunity of genuine work with a group in the village would gradually make it possible to work with other groups in other kinds of

activities. Then, at some future date, a need might arise to coordinate various activities for mutual benefit and general efficiency through some kind of organization like the village council. The village council would be functional only at that stage when the people were convinced that it was to their advantage to participate in it. The abstract idea of a village council when the village is so utterly disorganized and faction-torn, is a difficult concept for the villagers to accept.

Alinsky, Taylor, Redl, and Wineman also speak frankly of the need for new foci of power. Alinsky urges the development of grass-roots groups, or "People's Organizations." A people's organization, he says, should not be representative either of the various classes in the community, nor of the established interest groups; it should be drawn by and large from the depressed classes. It should mobilize the zeal for betterment which Alinsky feels may be found abundantly in any depressed people, and it should utilize the "natural leadership" to be found there. Through a process of free interaction, the members of the people's organization locate their common goals, mobilize their antagonisms toward common enemies, and prepare to fight existing foci of power, i.e. the vested interests and the like. Alinsky contrasts his people's organization with

community councils and other groups which seek to be both representative and constituent.¹

Organizer System

Within one year from the starting of the Comilla program, the PARD started organizing separate cooperatives for farmers and artisans. These turned out to be the cooperatives of the depressed classes. The rich farmers and artisans were not attracted.

The leadership responsibility was given to a trusted member chosen by the group. He was selected to become the organizer, later named manager, of the cooperative becuase of his honesty and capacity to serve the group. Gradually, with the expansion of the program in the village, other organizers, besides the manager, were selected to discharge specific responsibilities to the cooperative group--such as, model famer, woman organizer, imam teacher, village accountant, tractor driver, village mid-wife, family planning organizer, shop-keeper for the consumers' stores, etc.

All these people were selected mainly because they were known to be responsible and qualified for their

¹Lippitt, Watson, Westley, <u>The Dynamics of Planned</u> <u>Change</u> (New York: Harcourt, Brace and Company, Inc., 1958), pp. 26-27.

The author acknowledges his heavy indebtedness to Lippitt, et al., whose references have been extensively used in this chapter.

jobs. The model farmer was selected because he was the best farmer of the village and he was genuinely interested in improving agriculture in the village for his own sake. He joined the cooperative for his own benefit and pledged his loyalty to the group. In the same way, the imam teacher was the imam of the village mosque, and the shopkeeper for the consumers' store was the real village shop-keeper. They had not previously believed that they had an obligation to the group, but after their acceptance of the new role, they became active participators in group affairs. This is how a new type of village leadership was developed based on purely functional roles.

The organizer system thus developed was consistent with Alinsky's concept of natural leaders from the depressed classes. This system gradually replaced the Village-AID workers from each village. It became the main springboard for developing and training local leadership based on functional roles. Each was responsible only for the ascribed function, which was only a part of the entire social life. They were not visible as contestants for the prestigious traditional leadership role which is an all-inclusive comprehensive role assumed on the basis of heredity. But with the intensive training in their functional roles, and people's greater reliance on them, these new cadres of functional leaders came out as more appropriate,

accepted, and powerful in the changed situation as compared to the traditional leaders. Some of the data collected in this connection will be interesting to analyze. To a pre-coded question, "Are the traditional leaders still effective in your village?" the following responses were given:

	Respo			
Responses	Manager	Member 1	Member 2	Total Freq.
Yes	27	25	25	77
Yes, but the nature of their work has changed a lot	1	6	5	12
In some special events but not in all events	7	4	3	14
No	0	0	2	2

This indicates, by and large, that traditional leaders are still very active. But the second and third responses throw light on the possible change of the leadership role. Response 2 indicates that there has been a kind of accommodation with the present circumstances and response 3 indicates that there has been only a peaceful division of jurisdiction between the traditional and new leaders. Both these responses are almost equally frequent. The second question, "What is the existing relationship between the traditional leaders and the village cooperative?" elicits the following responses:

	Respo			
Responses	Manager	Member 1	Member 2	Total Freq.
Same leaders	5	6	6	17
Very cordial	20	21	21	62
Sub-serviant	0	0	0	0
Casual	4	3	1	8
Independent	2	2	3	7
Aggressive	4	3	4	11

The most frequent response (overwhelmingly) is that the relationship between the traditional leaders and the cooperative is very cordial, indicating as well that the two sets of leaders are different. The second most frequent response is that the same set of leaders is also in the cooperative and the third most frequent response is that the relationship is aggressive.

The third question asks, "Has there been any change in the relationship between the village traditional leaders and the cooperative?" The responses are as follows:

	Respo			
Responses	Manager	Member 1	Member 2	Total Freq.
No change, always positive	12	11	10	33
Yes, a positive change	15	18	19	52
Yes, a negative change	5	3	3	11
No change of indifference	3	1	1	5
No change, always negative	0	2	1	3

The fourth question asks, "Has the cooperative given rise to a new power structure in the village?" The responses are:

	Responses made by			
Responses	Manager	Member l	Member 2	Total Freq.
Yes	16	16	17	49
Uncertain	0	0	1	1
No	19	19	17	5 5

The next question, "Is the emergence of new leadership the result of new roles and responsibilities brought by the cooperative?" The responses are as follows:

	Responses made by			
Responses	Manager	Member l	Member 2	Total Freq.
Yes	15	19	18	52
Uncertain	0	0	1	1
No	20	16	16	52

All these responses taken together indicate that the traditional leaders are still active and somehow the new cooperative leaders (most of whom are not traditional leaders), have maintained a good relationship with them, in spite of the fact that in almost half of the cases, the cooperative has given rise to a new power structure because of its new role and responsibility. Thus the new power structure has a functional basis.

The responses of two more questions may be presented as a support of our contention of rising leadership from the depressed classes as a new cadre of functional leaders backed by the villagers and the cooperative. The responses on how the leaders of the cooperative are made are as follows:

	Respo			
Responses	Manager	Member 1	Member 2	Total Freq.
Members elect their leaders by votes (not ballot votes, neces- sarily) (democracy)	21	14	12	47
Members after coming to agreement elect their leaders unani- mously in general meetings (sociocracy)	12	14	13	39

(continues to the next page)

Responses	Marager	Member 1	Member 2	Total Freq.
Members are given responsibility of leader- ship on the basis of their functional educa- tional status, compe- tence due to prior experience and personal inclination.	7	11	11	29
Members are given responsibility of leadership on the basis of their trustworthi- ness, good character, and personal interest.	2	1	4	7
Members who by their work in the cooperative have assumed responsibilities and have acquired special- ized education over a period of time, are put in the positions of leadership		3	1	5

The first response indicates that the members of the cooperative are behaving in a new way in selecting their leaders by votes, though the second most frequent response was indicative of a kind of "sociocracy" where the emphasis is on unanimous agreement. "Sociocracy" is more characteristic of a traditional society, which is not willing to accept differences of opinions as a matter of right. The third, fourth and the fifth responses all indicate functionality rather than traditionality. This indicates definitely a new way of making leaders.

Responses made by

The last question that will be discussed is, "How was the new leadership created by the cooperative accommodated and absorbed in the village power structure?" The following are the responses:

	Respo	_		
Responses	Manager	Member 1	Member 2	Total Freq.
The two types of leaders meet according to social rules to decide on issues and pass judgment which has created a mutual under- standing and compromise.	s 4	7	8	19
The old leaders have accepted the new leaders for economic gains by using various facilities for agriculture	4	4	6	14
The new leaders have learned improved methods and have now become prominent	1	1	0	2
The old leaders have accepted the new leaders because they have been able to remove many diffi- culties of the village with the help of the cooperative members	2	1	0	3
The new leaders by actually practicing the leadership in regular weekly meetings (by solving various issues of controversy) have estab- lished themselves in the leadership position		0	1	2

(continues to the next page)

Responses made by				
Manager	Member 1	Memb er 2	Total Freq.	
0	1	0	1	
2	2	3	7	
3	2	1	6	
1	3	2	6	
	Manager 0 2 3	Manager Member 1 0 1 2 2 3 2		

The first response again indicates a sort of "survival" model. Both the two types of leaders have accepted the common social code and existed side by side without coming into conflict. This is possible when both the groups find themselves in a parity of power, which also means that the new leaders somehow by-passed the clashes in the early stage. The second response shows the indirect influence of the change agent in bolstering the powers of the new leaders. This may be interpreted to mean that the balance of power and prestige has swung

Responses made by

towards the new leaders. The third, fourth, fifth and sixth responses indicate that the sources of consolidation of position of the new leaders are the cooperative and its various programs. The seventh and eighth responses indicate that the old leadership is still dominant or the new leaders constantly need their sanction. But the last response again indicates that the new leaders have not ignored the old leaders, but gradually earned their cooperation. All these responses taken together may be interpreted as shaping the following process--the initiative to develop a new system of leadership was taken up by the new leaders, tactfully avoiding any conflict with the established leadership until they acquired the parity of power to exist side by side and tending to be more powerful by the support of the villagers and the change agent through the evolving cooperative program.

So the cooperative and its organizer system very quietly, in the course of time, transformed the traditional leadership role to a dozen functional leadership roles. Though, here and there, there were some clashes, by and large the transformation is taking place through people's support and acceptance, and with no serious conflicts.

Group Meetings

The weekly village group meetings are the most important function on which the solidarity of the entire group approach is based. In a highly disorganized community with many ways of exploitation prevailing and where people lose trust in their fellowmen, as was the case in the Comilla thana, the weekly general meetings of the cooperative members are indispensable. This expels mutual distrust and pluralistic ignorance and makes it possible for individuals to test the rumors, insights and plans for action. Gradually, as there is an increase in communication and a general "sharing of affect" (that is, a mutual sharing of feeling), group cohesiveness develops and the members begin to acquire a capacity for rational problemsolving behavior. Thus, the effect is twofold: first to reduce the differences among the ways in which the members look at the same set of conditions thus broadening a sharing of affect, and then to shift from affective to cognitive considerations.¹ In such a system, the expectations held by one person or group about the behavior of other persons or groups, serve as an important determinant of behavior.

The group approach as applied in the Comilla program seems to

i) build up psychological strength and a feeling of togetherness and security.

¹<u>Ibid.</u>, pp. 33-34.

- ii) discipline the individual for a group cause through a notion of rights and obligations.
- iii) facilitate pooling of resources, efforts and talents.
 - iv) provide a better chance of success, which may be further built on to develop a spirit of self-help, mutual-help, and a sense of group power.

Socio-Political Strategy

In a traditional community, the old leadership is generally conservative which favors a status quo protecting the powerful vested interests. Any change process is difficult under such circumstances. The organizer system, described under socio-psychological strategy, develops "lesser" leaders who are subservient to the group and the established leaders therefore do not find the system as challenging to their position. But once people get accustomed to the functional type of leaders who are capable of achieving what is expected of them, they will also start demanding that the traditional leaders be functional in some respects. When this happens, the leadership becomes dependent on merit and functionality and not on heredity.

This fundamental change in the concept of leadership, though it came in a subtle and quiet manner, was reinforced when the local people were delegated the authority of planning for themselves. But this needed a period of peaceful probation for the new functional leaders without any head-on clashes with the traditional leaders. Thus, the new functional leaders could get opportunities to establish themselves in some desirable roles and gain sufficient status and power from the support of the people to withstand any possible attack from the traditional leadership.

Local Control, Planning and Leadership

The Comilla program is basically a program of planning from the bottom. The very experimental nature of the PARD program indicates that ideas are tested in local situations. The client system has been carefully guarded from feeling that something was being imposed on the local level from the top. This is a necessary condition for local initiative. Such initiative flourishes when the local people are involved in planning, decision-making and keeping control. Local control develops responsibility among the people exercising control.

The public works program and the school works program of the Thana council, and the cooperative program and the women's program of the KTCCA are primarily based on local planning and local control, whatever may be the sources of funding these activities. But for this process to be effective, it is important that proper leadership is developed, managerial skill harnessed, and people

involved with government officials in the process. The PARD has consciously guarded its role so that the people, the client system, never felt that it was being forced to accept an influence relationship. In this respect, whatever may be the contribution of the PARD in decisionmaking, it has always emphasized the need for stimulating a voluntary desire for help in the client system, so that members of the client system feel responsible for their own actions. Once the principle of delegation of authority was accepted, it became the necessary duty of the PARD, the change agent, to make the client system conscious of its responsibility and to help them in all possible ways to get appropriate knowledge and insight about the problems, to provide appropriate training in planning and decision-making, and to implement and evaluate their plans efficiently. The organizer system developed the middle-level managerial personnel. The weekly meetings involved the people in the process and made the leaders accountable to the people; and the regular and special training of various kinds organized by the PARD and/or KTCCA, both for the government officials in the project, and the village organizers involved in the program, provided the necessary team-spirit and technical skill.

Once this is done effectively and a certain degree of success is achieved, the process gains momentum and

the people can exert more energy for this kind of work. Cattell has been particularly explicit in his economy-ofenergy model to describe group functioning of these types. For him a group's "synergy" is the total energy it can command. "Maintenance energy" is the part of that energy which is bound up in the group's internal machinery; "effective energy" is the residue, the energy which is available to the group for use in carrying on its external business.¹ It has been found that one of the early decisions to let the group form a cooperative in a way to make it as cohesive as possible and also of keeping the provision that they may split up into more than one group whenever they desire or may unite with other groups if mutually agreed, has been very significant. The very fact that the cooperative survives indicates a process of reducing tension from internal crises which also increases its efficiency.

So it has been found that these kinds of activities by the people--of making plans, implementing them efficiently, and maintaining them effectively--drastically change their thinking pattern, and more and more time and energy is given by each individual to become conversant with and play a role in the process. The people

¹Raymond B. Cattell, "Concepts and Methods in the Measurement of Group Syntality," <u>Psychological Review</u>, 55 (1948), 48-63.

find a new role for themselves and a new possibility is revealed in their social life. The PARD takes advantage of such an opportunity and creates an environment of exploration, learning and experimentation.

The decisions for future plans and work procedures are always taken in group meetings of the people concerned. Once the change agent has helped the client system to take a group decision of their own on a project, it has very rightly influenced the group to take other steps for its implementation. The responsibility of the project is assumed by the group. This forces the change agent to take whatever actions or roles it finds appropriate to supplement, boost or help the client system without making it dependent on the change agent. The work done by Lewin and his associates indicates that the technique of "group decision" is an effective instrument for goal change and behavioral change.¹

This spirit is maintained by the PARD at all levels. Even with its officers, or extension agents, a democratic supervisory procedure is maintained which shifts the authority of making decisions at each level from the supervisor to the work group. Such an arrangement, Maier says, restores two-way communications, increases the capacity of the work group for meeting and solving problems, and reduces the tendency of persons at all levels

¹Lippitt, <u>op.cit</u>., p. 58.

to consider new problems as threats to their personal security.¹ This approach has a profound influence on the entire climate of the organization and develops a unique compliance pattern of commitment among its employees.

The technique of delegating authority for local control and planning in the Comilla program seems to

- i) develop responsibility and constructive attitudes,
- increase initiative and acquisition of more knowledge and insight for better control and planning,
- iii) make planning more realistic to local situations,
 - iv) increase the amount of participation at grass-roots,
 - v) provide an effective combination of responsibility and authority for efficient management,
 - vi) provide training in decision-making, conflict-resolution, and resource development.

Avoidance of Head-On Clashes and Development of Mutual Interest

The development of leadership, training for planning and decision-making, aspiring for local control and management--all these are possible only when the change agent gets an opportunity to work with the client system without any serious clash with the traditional

¹Norman R. F. Maier, <u>Principles of Human Relations</u> (New York: Wiley, 1958).

leadership. It is of utmost necessity to avoid any head-on clash of interests because any trouble in the beginning will be an obstacle to introducing anything new. Considerable emphasis should be placed on the importance of each success in problem-solving, and the problems selected should often be those which offer a visible and non-controversial target.

But gradually with the development of new leadership and increase of "change ability" among the community from successful problem-solving experiences, it is possible for the community to take up even those projects which would have been almost impossible to start with. Lippitt, <u>et al</u>. have described the situation as:

Once a change project has been undertaken, however, the object of both change agent and client system is to swing the balance of forces as much as possible in favor of change. This may mean strengthening the change forces, weakening the resistance forces, or both. Maintaining a favorable balance of forces is a continual task for the change agent and client system, beginning with the initial decision to undertake a change project or helping relationship and continuing until the project has been completed.¹

Kurt Lewin has discussed this point, noting that up to a certain critical point an individual or group may show strong resistance to starting on a sequence of activities. Once this point has been passed and the

¹Lippitt, <u>op. cit</u>., p. 73.

system has acquired some investment in the process, there is a dramatic reversal. Forces which were once opposed to the change come to its support. Old change forces persist. Energies are directed toward completing the change process and obtaining the final reward.¹

Some of the best examples of the Comilla program in avoiding head-on clashes at various levels are--working on agricultural development without coming into conflict with the old powerful agriculture department; experimenting with a new kind of village cooperatives, not in harmony with those of the cooperative department of the government without clashing with it; working with a new type of middle-level leaders providing training for leadership, and managerial skill and experience with no discord between the Comilla program and the established traditional leaders; working with the cooperative groups in the villages for their economic welfare through projects based on an interest system which was not approved of on religious grounds by the imams or religious leaders, a very powerful group in rural East Pakistan, without directly clashing with the total imam class; involving some of the modern imams at a later stage in rendering educational services to the community by teaching the children the rudiments of secular and

¹Kurt Lewin, "Frontiers in Group Dynamics," <u>Human</u> <u>Relations</u>, 1 (1947), 5-41.

religious education and thereby making them partners in the process of modernization; and so on. A very practical analogy of the Comilla program's avoidance of head-on clashes may be found in the course of a stream of river by-passing the big rocks without making any fuss in the rocky mountain region; then later when on the plain with swollen fury it demolishes all barriers and surges in a sure way toward the ocean.

Socio-Economic Strategy

The client system of the Comilla program predominantly consists of village farmers at or below the subsistence level. They struggle just to survive. For this reason the PARD chose to emphasize the economic incentive for development from the very beginning. The Villege-AID program, though it emphasized economic programs was also stressing democratic philosophy, social education, aesthetic taste and decent living as ways of life which had no realistic appeal to the majority of the farmers. Many of the particular projects seriously suffered because of misplaced priorities and value assignment with consequent set-back of the morale of the entire program.

The PARD's program of rural development started from a very simple and small embryonic stage. The first project was the "Japanese Method of Paddy Cultivation"

which was later described as the "Improved Methods of Paddy Cultivation," undertaken by two or three cooperative groups of farmers, 10 to 12 in each group. This was the only way by which a farmer could be made interested. A small amount of increment in per acre productivity means a huge lot to these farmers who are constantly under threat of extinction. A gardenful of roses, a nice house without cobwebs, a wife expert in embroideries (the market for these handicrafts was beyond the reach of the poor farmers) -- all these values and aspirations were meaningless symbols to them. However, the process of development started with an economic incentive, the strongest incentive for the farmers of Comilla at that time. Gradually the "Improved Method of Paddy Cultivation" grew into a more complicated project, named the "Irrigation Program." The original project was implemented at the village level by small groups of farmers with the existing resources available at that time, whereas now the complicated present irrigation program depends on power resources and mechanization of agriculture implemented in a regional cluster under the guidance of a composite body representing various private and public agencies. There are many projects, almost all of them started primarily with some economic incentive, not in the shape of doles but of profit earned from increased production.

The whole program at all times is strewn with innumerable examples like the one given above which are dependent on one or another type of economic incentives. The underlying essence of organizing special interest groups for development work was primarily aimed at economic gains. The village mid-wives organized not so much for social welfare as to improve their own skills so that they might earn more, and so on.

Most of the original projects were simple and were supposed to increase income directly either by adding a gain or subtracting a loss for the participating groups. The more acceptable projects were those which could distribute profits equally to all the participants. Patience for delayed gratification was almost absent. All this seems quite natural when one understands the socio-psychological background of the Comilla rural communities. Gradually it was found that collaboration and cooperation between interest groups at certain stages can enhance the economic goals of the total group though not always strictly on an equal basis. But by that time they had learned to co-exist and plan for newer projects which call for more collaboration and cooperation.

With the economic solvency and increased capacity of the group to work together and with the relative permanency of the village organizations, the group

started planning even some social welfare. A small rickshaw-pullers' cooperative in the course of five years increased its capital incredibly and provided most of the members with some sure means of livelihood. It is now in a position to have a social welfare program of its own--free medi-care to its members, scholarships to the brighter children of the members for their education.¹ In this respect, the PARD has constantly tried to impress upon the client system that a period of hard work, higher production, greater solvency, and stabler institutions were necessary before any social welfare could be organized. This is a kind of birthpain, a "pain perspective," that one has to endure for getting something desirable.

The entire program has been successively shaped through a very subtle and carefully planned incentive system. The cooperative organizers, now called cooperative managers, were nominally compensated in the initial period by the PARD for their cash expenditure in coming to the centrally located Thana Training Center through the payment of a moderate travelling allowance. The time, energy, and interest expended by them were left to be compensated for by a feeling of genuine personal gain and satisfaction accruing from the training. For

¹Deedar Sramik Cooperative Society which is listed as cooperative no. 26 in the list of the sample cooperatives (Fig. 3).

this to be effective, the group was advised to select those persons who would feel individual gain from carrying out the responsibility assigned by the group. So the emphasis shifted from selecting educated or semieducated youths whose future was not likely to be in the village¹ and solvent farmers or rich people who were not likely to be genuinely interested in agriculture development, to the honest and trusted members who were likely to stay in the village and who had shown their genuine interest in agriculture by their regular normal work. They would more likely consider this responsibility as a personal benefit, bestowed by the group through this endorsement and would feel more loyal to the group.

But with the increasing number of visits by members to the KTCCA and increasing involvement in program development and routine office work, the system of compensation was changed and a monthly allowance from the PARD was offered which was more satisfactory to them. But it was made clear that the managers should be paid by the village cooperatives themselves in the future. If the village cooperative becomes solvent and has business projects, it can pay its manager any amount of money adequately to compensate his work. But this

¹Abdul Muyeed, "An Experiment with Youth Clubs," Journal of the Pakistan Academy for Village Development, Comilla, East Pakistan, Vol. 1, No. 1 (1960).

means hard work by the managers themsleves to improve the economic conditions of the cooperative (another painperspective). At a later stage, when the PARD withdrew from paying the allowances to the managers, the KTCCA, a central organization of village cooperatives, started paying them. But this time the formula was different, based on business terms. They were paid less as a fixed amount and the rest as commissions or fees to be earned. This variable part could be much larger than before depending on the business transacted by them. Even the fixed part depended on the average number of members attending all the weekly meetings with a deposit of at least Rs. 2.00 during the month. For each member attending all the meetings and depositing Rs. 2.00, the manager gets Rs. .50, 25% of the total deposit. This system forces the manager to make the meetings interesting for a maximum number of members to attend and also to extend membership in the village. But this is restricted by the condition that each member should save at least Rs. 2.00 during the month, the period of four weekly meetings. This will tend to emphasize the savings program of the farmers. There is also another condition by which a person can become a member; that is, by buying a share of the cooperative. He can continue to remain a member by buying a share each year. With the increase in the number of members, the total share money which is

non-refundable also goes up. This makes the cooperative a stake for the members and they tend to become more concerned and loyal to it. Once this is achieved, the manager's fixed amount goes up. The increase of the total deposit and share money brings benefit not only to the manager, but also to the members, because the upper ceiling of loan payable to the group depends on the total capital accumulated by the group in the form of savings and share purchases. The variable part is made up of a commission from the total amount of loan repaid by the cooperative members on time. The manager gets 10% of the total interest paid by the group to the KTCCA which is repaid on time. This is again an incentive for the manager to induce the group to get the maximum amount of loan, so that at the time of repayment, he earns the maximum income. The non-repayment of loan money is guarded against by a group security bond which creates group pressure in the first place, during allotment of loans and then during realization--a truly self-supervised credit system.

The other commissions are on tractor use by the group, power irrigation on acreage basis, etc. So in some highly active cooperative a manager earns in some busy months even Rs. 300.00 or more, where formerly he had to remain satisfied with Rs. 15.00 a month. From this brief description one can see how intricately the

incentive system has been built up with the program. Even such an incentive system may fail in certain circumstances. This has been brought out later by the factor analysis and will be discussed in Chapter VIII (Ref. Factor F_{μ}).

In the beginning of the program, the cooperative managers' emoluments were negligible. But the people's enthusiasm and commitment was kept very high by the formal and informal meetings of the PARD personnel, showing of movies of improved agricultural and other practices in different countries and demonstrations of improved methods in the PARD farm (change potentials). This is why the people insisted that the manager should take up the responsibility and probably compensated him in terms of social obligation and status if not in economic terms. (The factor on institution-building throws more light on it which will be discussed in the chapter on factor analysis). Due to the novelty of the work and the immense possibility of the future, some of the farmers selected as managers agreed to continue with only the travelling allowances given by the PARD.

Many cooperative groups could not find such persons who would agree to work under similar conditions in spite of their own status of underemployment. Gradually with the increase of the work-load of the manager and the greater investment of money and energy by the PARD, the

KTCCA, and the village group, it was felt necessary that the managers should be compensated well for a solid efficient full-time job from them. It was unrealistic to expect too much from the managers without paying them adequately. Altruism is an exception rather than a rule. So, more and more commissions, fees, and incentives were given to the manager. The flavor of the entire program tended to change from one of commitment and education to business and profit. This could lead to a situation of oligarchy and profit-making by a few unless the educational process reaches the masses as before and keeps their knowledge up to date and their commitment high. (The state of a closed corporation or oligarchy in connection with the cooperatives will be further discussed in Chapter VIII on factor analysis.) It seems that expecting too much too long from the managers without proper payment even in a program characterized by high commitment of the people resulting from an intensive communication system, is as unrealistic as to expect that it is sufficient to pay the managers adequately without a mechanism of direct contact with the masses who would keep the masses properly informed and aware so that the general commitment remains as high as before. A proper balance has to be reached between these two extremes--one, an intensive communication system directly reaching the masses with low or inadequate remuneration

for the manager; and the other, a highly paid or rewarded managerial system without any direct communication system reaching the masses except through the managers.

The Comilla situation seems to prove that the manager should take more and more responsibility to enlighten his group and move gradually with his group toward self-education through some established institutions which should be continuously replenished by knowledge from outside. This spells the change agents' continuous responsibility in providing fresh knowledge to the system to push the frontier further and further till the established institutions have internalized some mechanism for rendering the same services. So, probably, the balance is a matter of degree between these two extremes always having more than one channel of communication reaching the masses.

Educational Strategy

The Comilla program is primarily an educational program. Education is conceived here as a power derived from involvement which is capable of changing human behavior. Education thus defined involves both knowledge and the application of knowledge to the solution of human problems. Some of the most important educational strategies will be discussed here.

Multiplying the Channels of Communication

The most important link of the village cooperative with the KTCCA or the PARD is its manager. But besides him, there are also other organizers who have direct contact with the KTCCA or the FARD. These different types of people who come from the same village act as local voluntary agents for the development programs. Though they get training in various fields, they may discover a linkage among them, or endorse some of the basic attitudes required for change. This greatly helps diffusion and interpersonal communication in the village. The villagers are by nature skeptical about any information which comes from an outside source, or a single source even within the village. The multiplicity of sources is a safeguard for the villagers. When they hear the different persons with varying backgrounds and interests-the cooperative manager, imam teacher, model farmer, primary school teacher, women's organizer, family planning organizer, shop-keeper, tractor driver, village doctor -endorse or support the same idea, they tend to put more reliance on that particular piece of information. So there is a two-fold utilization of this system: themultiple channel of information is considered by the villagers to be free of vested interests and so more reliable; and at any moment the system can reach the

masses through several agents, thus increasing the efficiency of the system.

The organizer system has, on the one hand, eliminated the government employees as extension agents who were found to be less efficient in the program; and on the other hand, provided a very efficient system of diffusion and propagation of ideas through interpersonal means where mass media was not likely to be efficient because of illiteracy and cultural barriers.

There was another special feature in the Comilla program. The distinction between the teacher and the taught was largely eliminated and learning took place as a two-way process. Those who were taught in one situation took part as teachers in another situation with groups of newly taughts. The PARD experts trained the village trainers in the center, the village trainers trained groups of villagers in their respective villages, who in turn again trained their neighbors. This was a continuous process which multiplied teaching throughout the system in geometric ratio.

Continuity of Efforts and Linkage

In formulations of change objectives, most change agents reveal an implicit assumption that movement toward the final change goal is a sequential process which requires a number of sub-goals. Therefore, the starting

point in the helping process must be chosen in the light of certain strategic conceptions of the most effective sequence of steps to be taken toward the final change goal. This starting point is called by Lippitt <u>et al</u>. the leverage point of the agent's help-giving program. The leverage point may be either a strategically located unit in the client system's structure of influence or a particular aspect of the client system's dynamic existence.¹

In the Comilla program the special interest groups in the initial phase were among the most useful leverage points for reaching the change goal of involving the rural communities in a development process. Later, the village cooperative became the leverage point to introduce other modernizing projects, such as women's program, imam teachers program, family planning program, joint storage and marketing program, etc. The PARD in its first year of work developed a women's program through a group of enthusiastic village women of a particular village.² The program seemed to be shaping up very well, but before it could go further, the men of the village stopped their women from coming to the center for training and drove

¹Lippitt <u>et al</u>., <u>op. cit</u>., pp. 100-101.

²E. A. Schuler, M. Nurul Huq, K. R. Schuler, "East Pakistan's First Village Women's Cooperative: The Ashrafpur Grihya Lakshmi Cooperative Society Ltd., Kotwali Thana Development Area, Comilla District," <u>Journal of the</u> <u>Pakistan Academy for Village Development</u>, Comilla, Vol. 1, (1960), 19-34.

away the outside workers from the village in spite of the women's interest in the program. Emancipation of women was not possible in a man-dominated society without their approval and the approval is not likely to come when the men themselves are not emancipated. But in the women's program undertaken in those cooperative villages where the members were already under the influence of modernization and took the initiative in starting a women's program in cooperation with the PARD, there was no such trouble. The two programs were mutually reinforcing and gradually merged into one under the cooperative program.

Two considerations govern the choice of the leverage point. The first is accessibility: the leverage point must be open to the influence of the change agent and his allies, at least enough to allow the change process to begin. The second consideration is a matter of linkage: there must be at least a possible line of change process from the leverage point to the change objective. The ideal linkage is one which permits a direct, rapid, and easy spread of change from the leverage point to the change objective.¹

Another good example may be given on continuity of efforts and linkage from the Comilla program. It was an interesting story of adoption of modern irrigation. Twelve interested farmers were invited to the demonstration

¹Lippitt, <u>op. cit</u>., p. 102.

farm of the PARD from a village which had thin patches of greenery along the banks of a small canal surrounded by a vast area of fallow dry land during a particular period of the year. They were shown how the PARD irrigated its 5-acre farm for a third crop, called boro paddy, from a reservoir tank by low-lift power pumps. The farmers were highly impressed by seeing how efficiently tank-water could be used to get a major crop, but were not convinced about the economics of the whole operation. So a discussion session was organized to consider the economic feasibility of the operation. This almost convinced them that, provided the initial outlay for renting the pumps and other necessary operations were available, and no serious natural calamities damaged the crop, there would be an output of profit even on conservative estimates.

After this cost-benefit analysis, the farmers went back home with a proposal from the PARD that if twelve of them decide to form a cooperative group, they might rent a pump for the season and use water from the canal. This stirred up discussions in the village and they agreed to rent the pump for irrigating a crop which they had been growing only in small patches near the canal by indigenous hand-lift method of irrigation. But on the day of renting, only three farmers could come with the cash, which was much less than the actual rent. So an alternative arrangement was made. The farmers were asked to sign a contract that the rent-money would be realized by the KTCCA from the sale proceeds of the crop. This they did. They were then advised to use their already procured rent-money to buy fertilizers, seeds, and other necessities. Thus, the pump went to the village, the first symbol of agricultural modernization.

They started pumping water out of the canal to the particular plots under their possession without digging any ditches. They were immediately advised, that if they did so, they would very soon exhaust the canal water. They should not waste water by flooding a huge area just to get water in some particular plots. So they got together to solve the problem of digging irrigation ditches as their plots were scattered all around. They came to some decision as to how they should distribute the responsibility of digging the ditches.

When they started the actual digging out in the field, some farmers not in the cooperative group raised objection against digging ditches in their plots even though they would not be using the land during this period. Old factions were called into play and the simple problem became quite insurmountable. Many emotionally intense man-hours of debate and discussion were spent trying to strike a compromise. When this first barrier was overcome and water was flowing through the ditches, the people of the village--men and women, young and old--were amazed to see such a new sight. Their hearts were pulsating with a feeling of modernization and the sound of the pump machine. Within a week after that day a total of 42 families registered with the cooperative for water. The villagers even built dykes to carry water through the low-lying areas. Everybody got busy working though the usual pattern was "no work" for this period.

The crops started growing. But very soon they faced a serious problem of shortage of water. The normal showers were delayed and water was not held back in the main canal by building dams which they could have done if they had known about it earlier. The villagers having a stake in the crop met every day to find a way out. At this stage the PARD personnel suggested that they should start using the water of their village tanks to rescue the crop. But in future they would plan something better ahead of time. The PARD further suggested that it might use its influence to get loans from the banks for excavation of those derelict ponds after the water was pumped out and help the owners of the ponds in pisciculture. This would provide more water for next year and a good earning from the fish business. Some of the pond owners who did not join the cooperative sold water from their ponds. For the first time in the history of the village,

water became a commodity to sell. Temporarily, the water crisis was avoided.

Then came the sudden attack of pest for which the villagers were not prepared. The PARD came with all its resources and procured necessary insecticides which were sprayed day and night by the young villagers. But still, the fight with nature was not over. Nature, by withholding showers, seemed to be unusually cruel to these first innovators, to the degree of almost convincing the majority of the farmers that such innovations must be a serious crime against the order of nature. In a desperate attempt to get more water, the villagers agreed to keep only two ponds for washing purposes and use water for irrigation from the rest of the ponds. The PARD to back up this decision promised the group that it would use its influence again to get a tube-well for drinking water from the Thana council which had a program of sinking tube-wells within the thana.

The end came at last with a fairly good crop which was sufficient to pay the rent of the pump and also something more to sell. The gain earned in terms of money from the produce, though quite enough, was probably insignificant in comparison to the gains earned through the educational process they had just experienced. Next year three pumps went to that same village and more land

was brought under irrigation. More people got busy and so there was less time to invest in wasteful pastime.

Another important aspect of the continuity of efforts and linkage may be found in the PARD's professional interest in action research. The basic problems of the villages were so obvious that it was really not necessary to conduct a time-consuming survey. But, of course, the solutions were not so obvious. The time that would be needed to find out a full-fledged solution if there were any, through classically controlled experiments, if it were possible, would be long enough to dampen the spirits of anyone even attempting it. The best way of tackling such a situation is not through the scientifically right answers because the variables are so many that they will baffle any control, but the exploitation, at the right moment, of the enthusiasm of the client system to try an approximate solution. This very process has a greater potentiality of success, because it can limit the number of variables (the most difficult ones, namely sociological and psychological) and shape the rest up to expectations through a conscious effort. The more time the initial diagnostic phase of the project consumes, the less is the chance that sufficient energy is left for the work of changing. The action research undertaken by the PARD with its client system helps to maintain the

problem-solving spirit high and provides a continuous opportunity of problem-solving situations.

The village cooperatives continued with various types of projects, every time making those projects the leverage points for those particular moments to reach the change goal through a sequence of projects. The skills learned at every point in problem-solving enriches the capacity to solve still higher level problems in the sequence. This principle was also maintained in organizing training courses for the villagers. The training is not given once for all on a particular subject, but the villagers attend a continuous program of training all the year round, year after year. The continuity of efforts and linkage in the field of training will be discussed under the next heading "Realistic Curriculum." The continuity of effort is also noticeable in the weekly general meetings of the cooperative members in their own villages. Every week they discuss the vital problems confronting them and evaluate the progress in solving them. In this way, the cooperative program, the problem-solving aspects of the weekly meetings and any learning that occurs in these meetings--all become a way of life with them and they are all linked together for a more and more comprehensive accomplishment.

So, the continuity of efforts builds up a psychological trust of sincerity of purpose among the various

sub-parts of the client system as well as between the change agent and the client system. It helps the process of learning by doing and experiencing in a planned or logical sequence leading to an internalization of the problem-solving skills. It helps in transfer of learning and integration of education through a life-long continuous process and emancipating man for future direction and decision. Lastly, the continuity of efforts and linkage prompts vertical training and role differentiation leading to a better appreciation and loyalty to the organizational goals.

Realistic Curriculum

The PARD as a training institution is unique in East Pakistan. It formerly described its uniqueness by the statement "Our text is the social laboratory of the Comilla thana." The PARD evaluated its trainees in terms of creativity in the field, not in terms of examination results. It specialized in offering courses not of its own, but in courses demanded by its trainees. It utilized as instructors not only those whose profession was giving instruction, but also those who never knew how to give instruction. So, the PARD did not have a fixed list of courses; it did not have a clear-cut fixed clientele for its training courses; and it did not have all the instructors that it used for the courses it

offered. Probably all these unconventional things were necessary for making the curriculum of the PARD realistic.

The clients' training on a continuous basis, one day in a week or a fortnight, or a short period in a month, continues throughout the year. The cooperative managers or other kinds of organizers come one day weekly or fortnightly for a conference-cum-training session. They discuss their problems, get clarification on policies, supply feed-back on policies to policy-makers, and learn new methods and skills. This is a kind of continuous inservice training. Nobody gets a certificate of satisfactory completion of such a course. The model farmers learn paddy cultivation bit by bit with follow-ups in their own fields back in the village. With the seasonal nature of agriculture, their training is also seasonal. As growing of potatoes or paddy, whatever it may be, is repeated each year, so also is the training on them. Though the subject matter remains the same both the teacher and the taught are changed--the teacher by his increased knowledge through research and extension work, the taught by relating his training with his actual growing and then knowing the result of his efforts as compared with others of his group.

The method has some other advantages: it is very advantageous for the farmers to come once in a week or fortnight for training from their village homes. Most busy farmers would not come for a block of time for such

training leaving their farms behind. This makes certificate-hunting of the so-called farmers for outside jobs impossible. The continuity of training builds up a psychological trust among the farmers that they would not be abandoned in the near future. It shows the sincerity of purpose of the outside training agency in training the farmers although it is difficult for the farmers to accept without testing it for a while. The farmers get a chance to have a follow-up of their training in their day-to-day farm operations, which makes the training most efficient and useful for them. This continuous training develops them gradually, whether semi-literate or illiterate, and makes it possible for them to understand even difficult concepts of soil chemistry, plant pathology, etc.

There was another important feature of the curriculum. The periodic conference-cum-training, as discussed before, and other kinds of occasional or special events such as rallies, visits to demonstration farms, or visits to successful neighboring cooperatives, serve as "cultural islands." The theory of "cultural island" holds that in order to train adults in new patterns of interpersonal behavior, it is desirable to remove them from their standard environments and place them in special environments, where they are free to innovate, practice, and test new behaviors. Home environments reinforce old patterns and make change difficult. Movement to a special

"cultural island," however, where all forces are directed toward change, makes it possible for individuals to try something new.

In the big rallies, successful farmers and organizers are given highest possible honor in the presence of a big gathering of member-farmers, leaders and also non-memberfarmers. All the improved machinery belonging to the Central association (KTCCA) which could be for their use just for the asking, are demonstrated. The whole campus is replete with educational stalls and exhibitions. Those who go there come back with an idea that the whole thana is moving ahead and there is a genuine effort from the government to help the movement start. They listen to the success stories and hear about the problems from qualified persons, the farmers or organizers of other villages; they see exhibition of actual objects and also photographs of various succeeding projects. These rallies have great educational and psychological value.

In the conference-cum-training sessions, the managers and organizers identify themselves in a community of interest and do not feel alone in their efforts in improving the conditions of their respective villages. They are charged with some extra psychological forces in these sessions which make them vigorously active in support of the change projects. Whether the communication occurs in the village among the members, or in the

Thana center (KTCCA) among the managers and organizers of the primary cooperatives (who are leaders as well as trainers of the primary cooperatives), a strong climate of emphasis on the importance of social support for the new modes of behavior is maintained.

It is assumed that people will change much more readily when their change wins general approval than when it does not. There also seems to be an implied assumption that it is more legitimate as well as effective for the change agent to suggest a change in behavior than a change in attitudes, but once new behavior patterns are developed the client system will work out new attitudes for itself.

An effective example of the theory of "cultural island" may be drawn from the organization of the women's program. The meeting place for discussion in the village is a very sensitive issue. In the community of men, it is possible to decide the meeting place in the house of one of the leaders. But the principle cannot be generalized in the case of women. Each individual man feels completely autonomous about his wife and cannot conceive that they also should meet under one women. It is very difficult for the women of the village to meet formally in a fixed house under the leadership of one woman when her status is derived from a man. It is not possible to bring in the concept of group decision arrived at

democratically for the selection of the place. Whatever may be the manner of selection, it will be contaminated by a disgraceful feeling of being inferior to others. The principle that is tenable with men, is just not tenable with women.

The PARD realized this problem in the very beginning and suggested that a few women from each village may come to the Thana center every week to discuss their programs and will be given travelling allowances for their trips separately though coming from the same village. The new arrangement was liked by some and so the program got at least an opportunity to start. Invitation by the PARD was considered prestigious by these women. Thev also saved money by jointly hiring a rickshaw to come to the center. Then when all the women were in the center away from their villages, they seemed to forget their prejudices and status-consciousness in the new environment which seemed to make everybody equally friendly and nice to all. Free interaction among the women dispels the distorted percpetions and helps in building up a team spirit. They all seem to enjoy the freedom in a world of women outside the village, which is not possible within the village. Enriched with new emotional realization, they work concertedly in the village and want to bring other women of the village to appreciate

their realization. These women take the role of the change agent and also the innovator.

In the same way, the village leaders, the model farmers and others who go out to visit a demonstration farm and get an opportunity to talk personally to innovators come back convinced that what they have seen is good and must be tried by them in their own villages. These educational trips and exposures to improved methods create or strengthen new leaders in the village. Such trips hold potentiality. But they also show the difficulties of realizing these potentialities, the pain perspective. This helps in creating a genuine seriousness among village leaders and makes them seek help from the change agent.

Sociological Strategy

The Comilla program has concerned itself from the beginning with redefining the roles of some of the vital partners in the system. It was very difficult to change these accepted roles at first. The force of inertia was quite strong. But with persistent efforts and a carefully laid educational program in collaborative projects where the various partners were involved, a breakthrough has been attempted.

The Comilla program is characterized by its efforts to work out a program with village people--the principal

part of the client system, in collaboration with the existing government departments for nation building (Agriculture, Cooperative, Education, Family Planning, Basic Democracies, and so on). So, strictly speaking, the PARD works both with the people at one level and the departments and their officers at another level. In most cases, the number of partners are always multiple, including itself as one partner. In a collaborative effort, it is necessary that the roles to be played by the various partners be compatible with the general policy of the whole system. With great misgivings among the partners as described earlier, there was an imperative need for redefinition of the roles of villagers, officers, technical and research experts, the training institutes and the government, constituting the overall team for developmental planning and execution.

Role of the Villagers

The villagers' role with respect to their village development program was shifted from that of an onlooker to one of a positive activist striving to reach a goal as much as is possible by their efforts and then by collaboration with the governmental and non-governmental agencies. The old habit of "petitioning" and expecting others to do the job should be totally forgotten. The inactivity arising out of a despair that everything in the present system is rotten, should be discouraged. Instead, everybody should recognize that the government is limited in its capacities and resources, just as the people are. They themselves should do as much as they can for their own welfare before they can expect others to help them. If the people themselves are not serious about their own welfare, it is foolish to expect others to be serious about people's interest.

The PARD continued to emphasize to its poor farmer clients that they must save, because they are poor, no matter whether their stomach is full or empty. Unless they build up their own capital and credit-worthiness, no bank will give them loans or finance their projects. The PARD was also trying to develop in them a confidence in their own capacities and was raising the change potential of the groups.

The villagers through their successful small projects gained confidence in their ability. Their involvement in those projects and the hopes of future prospects developed strong forces of commitment. Gradually they have discovered the way of working up through their social milieu.

Role of the Officers

The officers' role was changed from one of power and prestige to one of acceptance and help. There were

innumerable visible and invisible barriers between the officers and the people. Some of them were maintained for corrupt motives and others sprang from mutual misconceptions. The people thought that the officers were not committed to the development of rural areas or to anything except their own interests. The officers in turn thought that the people were ignorant, fatalistic, and would not change unless force was applied. It was urged that the officers should try to understand the problems of the rural people and accept them as genuine. They should be not only an executive force but should also be committed teachers. Who else other than the highly paid and educated officers should take the role of teaching the farmers when there is nobody around to teach them the improved methods? They also have a moral obligation to these poor farmers who are really the backbone of the nation and are being squeezed more and more to provide for higher salaries for the officers. In the governmental efforts to develop the country, the government officers must realize that it is not possible for the government alone to develop the country. For a lasting development of the country both the governmental forces and the people must unite and work concertedly as a team. The officers were urged to accept the people, and then work together for a change objective which is

compatible with the goal of development jointly held by the partners in the process.

The PARD in establishing this new role for the officers, utilized the district and thana level officials of the technical departments to train the villagers in subjects like agriculture, animal husbandry, fishery, plant protection, literacy, etc. The villagers were trained in these specific subjects, only when they had involved themselves in action programs in their villages under the technical guidance of the relevant departments. Thus the people and the officers met in the Thana training center as co-partners of projects undertaken in the village under the technical guidance of the departments. In addition to taking classes with the villagers in the Thana center, the officers also visited the villages as observers of the client system's routine activities. This method of observer-participation allows the change agent to get diagnostic information by non-verbal means which the client system cannot verbalize through reports, though they are aware of it. This is how the departmental program is fed and enriched by the local programs undertaken by the people. The local programs are included in a comprehensive departmental program where the officers and the people unite to achieve the same goal. The team work required for such work develops mutual understanding and appreciation between the officers and the people.

The officers are also trained in the new philosophy, extension techniques, and human relations by the PARD. Sorenson and Dimock with respect to institutional change emphasize the importance of a change in values (in organizational policy and philosophy) as a basic concern of the change agent who is beginning a process of change in the functioning of an organization. Such a change in values must be followed, they report, by a major program of staff training in the means of actualizing the new values.¹

Role of the Experts and Research Technicians

The expert and research technicians did not realize that their best contributions lie in identifying technical problems in their profession relevant to the local situation. Their findings must solve the problems of the country or the local communities around which they work. They must relate their research to local problems and explore solutions in collaboration with the villagers in the existing field conditions. The traditional role played by the costly research and technical institutions did not solve the problem of poor productivity and other vital problems of the local communities or the country. These professionals were directed more toward the outside

¹Roy Sorenson and Hedley Dimock, <u>Designing Educa-</u> tion in Values: A Case Study of Institutional Change (New York: Association Press, 1955).

world and the enhancement of their reputations than toward their own country and people who provided their salaries. The PARD tried to bring them back to focus on local problems. When they showed an increasing interest in local problems, these experts gained prestige with the local people for their useful research directed to the solution of local problems.

The PARD recently organized a series of seminars on problems of agricultural development inviting all the top specialists, researchists, and policy-makers and presented extensively its own findings in particular fields to these people for their review. These seminars stimulated a great interest in those particular fields. There is still a long way to go in this respect, but still this effort has focused experts' attention in relevant research at local levels for immediate application.

Role of the Training Institutes

Traditionally, the function of the training institutes has been chiefly to provide certificates to their trainees for possible employment in government departments. Most often there has been very little connection between the subject-matter taught and the actual need of the day in the field. Very few training institutes have had extension and research programs for the benefit of the

teachers and the trainees. Training in some of these institutes, interestingly enough, has not always been meant for application.

The PARD developed a model institution, the Thana Training Center, for the training of the villagers in various subjects. Nobody has felt the necessity of giving any certificate after the training is over nor has any trainee ever asked for it. The training is meant for application and is taken by the genuine farmers for their own benefit. The Thana Training Center as developed by the PARD has been a very effective institution for training the farmers in all subjects relevant to rural occupations. More than a thousand farmers come every week all the year round to be taught by the Thana level officers and extension workers. The scheme of the Thana Training Center has been accepted as a national program.

The new role emphasized by the PARD for the training institutes is that it should train its relevant client in useful skills that are needed by the client. The training materials should be drawn from real and local situations and should be constantly replenished with changing situations. The research and extension programs always enrich the curriculum of the institutes. Models, demonstration, and practical work should supplement the theories and principles.

Role of the Government

The law and order bias of the government must be changed to a bias of welfare and development. Local initiative should be sought through decentralization and delegation of authority. Local self-government units should be vitalized. The local programs should be integrated to fit into the guideline of national planning. Government should encourage pilot projects and evaluate them periodically to gain insights for policy making in these fields. On the basis of action research and pilot projects, the government must take the responsibility of developing an adequate infra-structure for efficient administration, and must reinforce the developmental efforts of the people at lower levels. It must develop an outlook of experimentation and flexibility.

Broadly speaking, the roles of the various partners in the system have been redefined to achieve the following:

- i) to arouse initiative and responsibility among the people to shape their immediate environment.
- ii) to introduce the dual role of executive and teacher among the officers dealing with the people and make them believe that something good is possible, if honestly tried.
- iii) to develop a spirit of partnership between the people and the government.

Scientific Strategy

The strategy which mostly guided the PARD in dealing with the problems of the client system has been called scientific because of its heavy reliance on experimentation. It was necessary for the PARD to be experimental in its approach. Though the PARD had access to various principles and procedures, adopted in varying conditions in other countries, it did not know definitely which of them would be relevant for the Comilla situation or in what combination. Within the culture there were contradictory notions for the solution of the most pressing problems. Advocates of some of those contradictory solutions were so strong as to be almost dogmatic, and gave rise to some massive programs in the governmental sectors which failed miserably. Two of the dogmas found to be errors are as follows: (1) "illiteracy is the root cause of all evils and unless people are made literate nothing is going to happen." This creates a vicious circle which cannot be broken. The country does not have sufficient resources to wipe out illiteracy and at the same time illiterate people are not interested in literacy, because of its non-functional values. So they stay where they are, some blaming the government for not trying seriously to wipe out illiteracy and others blaming the illiterate people for not getting interested in literacy. Some even advocate application of force to break this

vicious circle. (2) "Fragmentation of land is the most difficult barrier for the introduction of improved methods and hence the cause for low agricultural productivity." It is very difficult to consolidate the holdings even by applying force and so the problem remains as it was. Many more such weaknesses can be discussed.

The PARD took an altogether different strategy and assumed no dogmatic notion about solutions of rural problems. This strategy forced it to undertake research with the village people on their problems. The extension programs with the villagers, action research in the field, and pilot projects in collaboration with government departments are the outcome of this notion to explore, along with the people and the government departments, the practical solutions of the problems.

Most of the technical departments were weak in their extension work. Some did not have an extension wing and others might have some programs of extension without proper policy and personnel. The PARD considered this aspect the weakest link of the development chain and started its extension and research programs with emphasis equal to its original training responsibility. The PARD has a faculty of social scientists who started exploring why the findings of technical departments were not applied in the villages. The PARD depended on the technical departments for the technical knowledge but started

independent research to find out the effective methods of diffusion, factors influencing adoption of improved practices, need for institution building, efficient methods for coordination at various levels of its organizational work, and so on. It emphasized attention in the field of social sciences--administration and management, social engineering, group dynamics, and human relations.

This particular role of the PARD was also welcomed by the technical departments and a mutual dependence grew between the PARD and departmental programs. Such matters as improved seeds, fertilizers, pest control, cold storage, family planning devices, engineering plans, disease control, power generation, artifical insemination, etc. were subjects to be handled by the technical departments. The departments realized that the PARD's extension programs and its research findings in the field of social sciences would strengthen their projects too, which built a healthy promise of cooperation.

The PARD's entire outlook was characterized by a pragmatic consideration. It knew that the forces of development could not be generated overnight nor a perfect solution suggested for implementation for each problem. A perfectionist and meticulous approach would be an unnecessary refinement and might lead to a kind of dogmatism again. In most of the cases, it is erroneous to think

that there exists only one best solution. The characteristic way of the PARD is to approach a more satisfactory solution gradually through experimentation and evaluation along with the client system. This process carries the client system with it and prepares the client system for greater socio-psychological maturity. A group which acquires an insight into the various forces influencing its behavior is probably better able to handle these forces. A system of conflicting sub-parts will benefit if the conflict can be reduced.

Perhaps the most commonly mentioned qualitative change is an increase in capacity for effective problemsolving behavior. It is generally assumed that a system can make progress by working on small and immediate problems first, thus gradually developing a capacity for dealing with the larger problems. Once this capacity exists, the system is able to face its larger problems. The PARD has always considered this as an invaluable effect which makes higher level linkage, transfer of skill and integration of knowledge possible.

The PARD in its functioning with the client system fosters an environment of education and encourages every opportunity for learning, both for itself and the client system. Though for an early period it may establish an expectation which makes the client system heavily dependent, it gradually changes the expectation of the

client system to a relatively autonomous status with occasional assistance from the PARD.

The most important single step towards development planning was taken by the government when it decided that a high level institution (PARD) under an autonomous body should be set up to train the Village-AID officials. to conduct research in the field of rural development, and to evaluate the Village-AID programs for its continuous improvement. Even after the abolition of the Village-AID program, the government decided to keep the PARD to conduct research in development planning and administration. to set up models of administration which might be studied and evaluated to provide valuable insights to the planners of rural development and to train civil officials for development programs. The Ford Foundation, with its technical assistance and funds, was largely responsible for persuading the Pakistan Government to accept such an innovation in the field of development planning. It has proved itself of immeasurable usefulness.

Because of the overriding importance of "Government strategy," it will be dealt with in the next chapter under "Institution-Building."

CHAPTER VII

INSTITUTION-BUILDING AND ITS INTEGRATION IN THE SYSTEM

Introduction

The PARD, from the beginning was open to learning from some of the past failures. The 1928 report of the Royal Commission on Agriculture brought out some of the basic problems of agriculture in India though their recommendations were never seriously implemented and were far from bringing any impact on agriculture. The 1904 Cooperative Act of India was a brilliant enactment which was implemented, especially in Bengal, with great official fervor. But it lost most of its effectiveness due to the lack of educational efforts that were supposed to go with it. Then came the wave of rural reconstruction movements during the period of 1920-1945 in different provinces of India. The ones specially studied in the PARD are those in the Punjab and Bengal. But these were characteristically of one man's dream backed by either a limited fund of government money or a philanthropic fund. The money, effort and research which were necessary to make them self-perpetuating

through an integration with the politico-administrative system, were lacking. The moment the supports were withdrawn, these projects collapsed like a house of cards. The Village-AID program, so sophisticated in its theoretical base was also facing trouble, and was ultimately abolished because it, too, ignored some of the basic facts of the society and the official bureaucratic structure.

The abolition of the Village-AID program in 1961 precipitated a momentary crisis for the PARD since this was the highest level training institution set up for the Village-AID in 1958. Fortunately the service of the PARD already demonstrated a need for such an institution. After the abolition of the Village-AID, an urgent need was felt to develop further institutions at the lower level to work conjointly with the newly set-up local self-government system of the Basic Democracies. The various pilot projects undertaken for village modernization took new significance in the changed circumstances.

This chapter has been developed mainly from the inventories and case studies conducted on PARD, KTCCA, Thana Council and various PARD projects.

Institution-Building in the Micro-System

The cooperative program which has developed as a private sector enterprise with its thana level central

association (KTCCA) as an autonomous body has already been discussed. The PARD's approach in this programbuilding was very pragmatic. It had some notions about the serious problems of agriculture and rural people. But it did not have any ready-made answers or solutions for them. Of course, it had also some information on how similar problems in a different setting of a foreign culture had been approached. As, for example, there are numerous mentions and appreciative references in various early publications of the PARD about the Land Grant Colleges of the USA, the Danish Folk Schools, $^{\perp}$ the Raiffeisen Approach to Cooperatives in Germany.² the Antigonish movement of Canada³ and the farmers school in China. The land grant colleges have given an idea as to how to develop an agricultural extension program by working with the farmers and understanding their problems and utilizing the research findings for the benefit of the farmers. The Danish folk school has given the idea of how a group of people in despair and

³M. M. Cohdy, <u>Masters of Their Own Destiny</u> (New York, London: Harper, 1939).

¹Olive Arnold Campbell, <u>The Danish Folk School;</u> <u>Its Influence in the Life of Denmark and the North</u> (New York: The Macmillan Company, 1928).

²Maurice Colombain, <u>Cooperatives and Fundamental</u> <u>Education</u>, Publication No. 632, second of a series of booklets, Monographs on Fundamental Education (Paris: UNESCO, 1950), pp. 18-21. From the extensive literature on Raiffeisen credit cooperatives one work may be cited: Dr. F. J. Stwdelmann, <u>Frederich William Raiffeisen: His</u> Life and Work (St. Gall: 1930).

frustration can meet together over and over again to build up a psychological bond and cohesion, and arouse the "inner-self" through a moral movement. The Raiffeisen approach has shown how small farmers must join together and build up their own capital to fight against moneylenders and middle-level exploitation. The Antigonish movement has shown the way to an effective program of training and communication that can lead communities to development through cooperative enterprises. The farmers school of China has given an idea how the farmers can be trained in agriculture within a commune in a massive way.

This knowledge greatly helped in arriving at a workable solution on a pragmatic basis on many of the problems. When the village council approach failed, the village cooperative of special interest groups was tried. The group was found to be cohesive, but it was realized that to support these cohesive groups some services have to be provided which should be organized in an economic unit. This gave rise to a two-tier cooperative system of the Comilla program having the apex organization taking care of the various services.

From this premise, with a social laboratory of the Comilla thana for experimentation, the PARD started its various projects which created the need for both services and institutions. The Comilla program initially seemed to have more bearing on the agriculture and cooperative

departments. Lacking technicians in these fields and resources to help the cooperative groups solve their problems and also for developing action programs of the existing departments, the PARD developed a collaborative program with these government departments.

It was realized that among the vital concerns of farmers were the problems of credit and knowledge of improved cultivation. Neither the existing credit institutions nor the educational institutions were suitable for farmers. A new rural banking system had to be evolved. In the absence of acceptable individual security or collateral, the system shifted to a group collateral plan. Credit facilities were offered to the cooperative as a whole instead of to individual members and the cooperative as a whole became responsible for paying back the entire amount.

This system reinforced the group system. The group became more functional, more a decision-making organ and more powerful. By making the group responsible for the repayment of the entire loan amount, the group was also made responsible for the supervision of proper use of loan money. This was the first major step towards building a self-supervised credit system. The source of group pressure created by this system was found to be very useful in developing further programs, initiative and responsibility. So, the credit was put under 'group supervision' and gradually it was linked with a new project, 'storage and marketing.' In these changed circumstances, the PARD and the KTCCA further developed a role of helping cooperative groups with technical assistance for making the best use of their loan money and by establishing storage and marketing facilities for protecting the profits of these groups.

The agriculture extension programs were strengthened and regular assistance was planned to have expert agronomists to scrutinize the production plans made by the cooperative groups. The sanction of credit was made dependent on the soundness of the production plan. The habit of thrift, through small savings, was made another condition for credit, though it was one of the compulsory conditions of the affiliation or survival of the cooperative, which made the banking a truly two-way transaction. The KTCCA set up cold storage plants and a transport system to help the individual cooperatives in storage and marketing problems, so that repayment of loans became easier.

The special merit of any of the projects in the Comilla program is, that it identifies the problems in real situations and prescribes some solution on an <u>ad hoc</u> basis depending on the existing resources and tries to reinforce it from all possible directions. If it is found not to work even then, a new ad hoc solution is

tried again with all other forces gradually shaped to reinforce it. The most effective solutions were discovered in this manner.

But if some processes are found not to reinforce the potential successful solution, a 'survival approach' is taken for the time being. The friction and anomalies are made known with scientific objectivity through research monographs, reports, and conferences without directly attacking those forces. It has been possible with some tact to induce the proponent of the particular force to take a rational view and change it so as to reinforce the right situation and become a participant in the development process. But, of course, in practice, it is not always so easy. There are many places where some forces are still resisting certain development processes either because of vested interests or a genuine lack of knowledge. In such cases, the PARD without bringing the particular force into an open challenge. developed necessary services within its own laboratory area from its own or outside funds and made all its reports, research, and evaluation available to the departmental people and policy-makers. Some of the resisting forces have been changed through such methods.

Though the Comilla program developed its many projects at various times, they were not isolated efforts for solving problems. They really belong to a continuous

development of one underlying force, namely, the improvement of the condition in the rural sector. A project or a set of projects was formulated on a time scale, when the conditions in the environmental structure yielded to make place for it. This makes another condition incumbent on the project or the set of projects that it must have acquired by that time the optimum functionality in the existing system.

So, while the Comilla program was developing the village cooperatives, a new specific action-oriented, cohesive institution in place of the old institution, the village <u>panchayet</u> (identical with samaj), it was replacing the old usurious money-lending institution by a modern pragmatic rural banking system, and was also introducing storage and marketing facilities which had the potentiality of transforming subsistence agriculture into commercial agriculture. It was also strongly and consistently felt that the means of production should be improved, there should be greater protection of the crops from natural calamities like floods, droughts, cyclones, and pests, and lastly there should be better road and transport systems between smaller and bigger markets.

The first felt need generated innumerable projects such as preparation of compost heaps, fertilizer use, line sowing, better local seeds, new vegetables,

small scale mechanization, irrigation, etc.¹ The second and third felt needs opened the possibility of bringing in the public sector in the process of development, including some government departments and the local self-government units at the union and thana levels. (There are twelve unions in the Comilla thana and the Union Council is the lowest tier in the Basic Democracies System). This led the PARD to play a significant role in experimentation on the effective roles of the Thana Council, referred to in Chapter I. The rural works program, an infrastructure for agricultural development, came into being to develop a road system, check local floods of smaller dimenisons, facilitate drainage system, control soil-erosion, etc. It also provided employment in the rural sector during slack seasons.

The intensification of the programs of agricultural education and demonstrations of improved methods, and the introduction of local planning, coordination of plans among the various unions, and execution of the plans, gave birth to a new thana administration plan with three component parts: (i) the Thana Council, (ii) the Thana Training Center, and (iii) the KTCCA. While the implementation of this plan became an invigorating experience for all the parties concerned--government, PARD and the rural people--some new problems cropped up.

¹See list of KTCCA projects in Chapter V.

The improved methods of cultivation almost reached a ceiling and would produce no more profit regardless of any more increase in investment. The production of new vegetables in commercial scale is not possible unless the storage and marketing system is further developed. So this led the PARD to look for more high-yielding varieties of paddy and to undertake a seed-trial experiment with various imported seeds. The World Bank also came in the picture in connection with the setting up of a small rice-research experiment in collaboration with the International Rice Research Institute (IRRI). A seed testing laboratory was also set up. As a result a number of very high-yielding rice varieties were found to be adaptable to East Pakistan conditions.

In the same way the KTCCA enlarged its storage capacity and started new processing units, which resulted in a possible breakthrough of the stagnating situation. While this was being done on one side, there was also a problem on the other side. Funds were falling short for the rural works program due to the difficulty of using PL-480 funds for the purpose. However after a period of frustration due to lack of government funds a new and more potentially significant project came into being, named the Thana Irrigation Program (TIP), which is an extended form of the rural works program. Under this program the villages are being

electrified for the installation of deep 6" diameter tube-wells.

While the main activities were surging in this direction there were also other collateral complementarities, in the field of education, women's participation, health, family planning, etc. It is hardly possible in this limited space to elaborate these programs. However, the main principles of structuralfunctional balance were maintained throughout the program.

The development of functions and its impact in developing appropriate structures for perpetuating the routinized activities needed for efficient progression of development within the micro-structure have been discussed. In the following section the PARD's role in integrating these institutions in the politicoadministrative system will be briefly discussed. This process of integration extends the scope of analysis beyond the micro-system.

The PARD-Role in Stabilizing the Institutions Developed in the Micro-System

It has been mentioned previously that the establishment of the PARD, with its anticipated role in the field of rural development administration, was itself a big step taken by the government towards modernizing public administration. It was rightly set-up under an

autonomous central board of governors, with high powers from the very beginning. But later because of the diverging interests and problems peculiar to the two wings and also for convenience of administration, the Comilla PARD, was placed under an autonomous provincial board of governors, which further increased its effectiveness. The chief secretary, government of East Pakistan, is the chairman of the board and the secretaries of the various departments relevant to rural development, the director of the PARD and some others, including a few non-official members, are the members of the board. The very composition of the board symbolized the inter-departmental approach to problems of rural development and the urgency of their solution. In the third meeting of the board of governors, in 1959, it was suggested.

The Academy should teach civil servants of government new concepts of public administration. So that they may change their outlook and become properly equipped to work effectively for the welfare of the people.

In the year 1961, the Governors' conference emphasized the important role of the Academies (including PARD, Peshawar) by the following statement:

All officers of general administration should attend courses at the Village Development Academies.

The PARD took its role as a stimulating challenge from the beginning. On the request of the PARD, the

chief administrator and the provincial administrator of the Village-AID program agreed to put the Comilla development area with the PARD for experimental planning in January, 1960. The department of planning and development, Government of East Pakistan, decided (Vide Memo. No. 606-V-AID/SE-5/60 dated 3.2.60) that the results of this experiment, if found useful, might subsequently be introduced in all development areas (under the Village-AID program). This is how the PARD assumed its role of teaching civil servants a new concept of public administration and conducting experiments to discover effective models of rural administration which could be of use for future planning.

The previous section of this chapter dealt with the functional aspects of the development efforts where the PARD was mostly engaged with the people and the local departments of the government to bring about experimentally the most effective structural frame to integrate the various processes into a system. In the present section, the PARD role in stabilizing the structural patterns thus evolved into the larger politico-administrative set up will be discussed. In this role the PARD is engaged with the provincial departments, the planning bodies and the highest administrative leaders of the government to formulate long range policies and administrative plans which will

sustain and reinforce the system developed in the micro setting. The simultaneous approach with the set of complementarities has been shown, though in a much simplified manner in developing the section, which is then followed by a general abstraction of some underlying principles.

The PARD started its cooperative program in 1959 on an experimental basis in the Comilla thana. In December, 1960, the director of the PARD approached the chief secretary and explained to him the importance of running the thana council at Comilla as a demonstration model. In the middle of 1961 the PARD director and various parties in the provincial and central governments worked on a five-year scheme for continuing the Comilla project over the entire thana, later approved in January, 1962, and named Introduction of Mechanized Farming on Cooperative Basis in Comilla. In August, 1961, the department of Basic Democracies and Local Government, Government of East Pakistan, approved the PARD director's proposal for continuation of work with the Comilla Thana Council (Vide No. 5-XIII/15-6-51/535, dated 30.8.61). The annual expenditure of Rs. 27,600 was to be borne by the Basic Democracy Department for the sake of (1) providing a good working model for the training of officers, and (11) for providing valuable experience in the methods of organization and training, and (iii) for

collecting materials for research about possibilities of further improvement in rural administration.

The rural works program was started in October, 1961. All the union plans were consolidated into a thana plan after a thorough revision jointly by the officers of the Thana Council, and the PARD personnel with the technical advice of the WAPDA (Water and Power Development Authority) engineers. The department of agriculture agreed to finance the experiment and supplied Rs. 260,000 from the minor irrigation schemes allocation.

The program of adult education was organized by the Village-AID and then by the National Development Organization (NDO). After the abolition of the NDO, the PARD took charge of the program and in November 1961 prepared a 5-year scheme. The Bureau of National Reconstruction (BNR) agreed to finance the scheme. But the plan came to an end in September, 1962 due to lack of financial support from the BNR. This led the PARD to begin promoting adult literacy through the use of imams by cooperative societies.

A scheme was prepared for the rural pilot family planning program to evolve an appropriate pattern for propagation of family planning ideas and adoption of various practices. The scheme was implemented officially in July, 1962 and was financed by the family planning department as a pilot project till 1965.

A preliminary report on the rural works program (1961-62) was submitted to the planning department and the provincial government in June, 1962, according to an earlier agreement by the PARD director. The project accomplished the moving of 8,000,000 cu. ft. of earth, and providing employment for about 46,000 man-days of work, at a total cost of Rs. 1,500,000 which was Rs. 1,100,000 less than the amount available. The provincial and central government became impressed by this accomplishment and decided that the department of Basic Democracies and Local Government of East Pakistan should further test the process used in Comilla thana by applying it in all 54 sub-divisional thanas in 1962-63, by sanctioning Rs. 1,150,000 for each thana for work projects including establishment. The total grant from the central government was raised to Rs. 100,000,000, which was put at the disposal of the department of Basic Democracies. It was further decided that the remaining 359 thanas¹ should also be included with less intensive programs. But because of the belated sanction, the non-sub-divisional thanas received smaller grants, since by then there was less time to plan and to train people for the work.

The PARD director in June 1962 prepared a working paper for the additional chief secretary (Planning,

¹There are 413 thanas in East Pakistan.

Government of East Pakistan) on the proposal for the creation of three additional experimental demonstrations in rural development based on the Comilla experience. The provincial government accepted the proposal and appointed an officer to special duty at the PARD. He prepared a 5-year plan in October 1962. The cost of operation for each new area was Rs. 3,500,000 of which Rs. 1,000,000 was a grant and Rs. 2,500,000 was a loan repayable in 20 years. The scheme was approved by the Development Working Party in October, 1962. The three new project centers began functioning in July, 1963. The project directors of the three new areas visited Comilla once a month to review the activities in their respective areas and to remain in close touch with the continuing development of the parent project.

An evaluation of the province-wide rural works program was undertaken by the PARD at the request of the department of Basic Democracies, and the department provided a budget of Rs. 11,750 for the evaluation. The PARD evaluation team was formed in December 1962.

The formal organization of the Thana Training and Development Center (TTDC) was announced in February, 1963. The president of Pakistan visited the PARD in March 1963 and wrote a letter of appreciation to the PARD director,

. . . It is the first time that I found the ideas that were only vaguely present in my mind put into practical shape in a realistic and pragmatic manner to help people stand on their own feet and better their lot. I was deeply moved by all that and congratulate you on your magnificent efforts.

I hope your experiences are put into practice throughout the country. In that lies our real salvation and you can rest assured that I, on my part, will do all that is possible to support this noble cause.

By the middle of 1963, the rural public works program became a national program. The president of Pakistan declared that Rs. 200,000,000 would be given to East Pakistan and Rs. 100,000,000 to West Pakistan. The Comilla thana received Rs. 2,000,000 for rural works program of 1963-64, of which Rs. 300,000 were for rural electrification, Rs. 900,000 for irrigation and Rs. 200,000 for Sonaichari lift irrigation project and the rest for roads, bridges, culverts, regulators, excavations of canals and for maintenance of old projects. In July 1963, the Thana Training and Development Center (TTDC) became a provincial program.

The plan for rural electrification and irrigation was undertaken which was intended to be completed within 3 years. The plan included (i) Sonaichari lift irrigation project, (ii) sinking of 200 6"-diameter tube-wells, and (iii) electrification, to be financed by Rs. 1,200,000 out of the Rs. 2,000,000 allocation previously mentioned. This is to be considered as a pilot project to test the absorption capacity of one thana, the reactions of farmers to the availability of power, the administrative input needed, and the types and amounts of training required.

In October, 1963, a scheme for a school works program for the Comilla thana was prepared by the PARD and was accepted by the Basic Democracies Department and an amount of Rs. 266,000 was sanctioned for 1963-64. The program was continued the following year from a sanctioned fund of Rs. 110,000 from the same source and came to an end thereafter for lack of financing. The Education department, government of East Pakistan, prepared a 6-year plan for the establishment of an Adult Education Institute, attached to the PARD in October 1963, and one of the PARD personnel was made the head of the institution.

The finance minister of Pakistan while visiting the Academy in December, 1963 suggested to the PARD director that he write a memorandum for the expansion of the Comilla-type program all over the province. The director prepared the memorandum which gave the background of the proposal for a District Pilot Project. The proposal was approved by the Central Development Working Party by March, 1964 and was presented to the National Economic Council in May, 1964. In January, 1965 the District Pilot Project was finally approved as the district integrated rural development program. This program extends beyond the micro-system. One of the major purposes of this experiment was to involve district

administration and departmental district officers in order to ascertain how the thana institutions can best be supported from the district headquarters. The scheme envisaged administrative, technical, and supply and servicing support from the district level, the organizational complex at the thana level remaining the same as that of Comilla thana. The scheme proposed a total cost involvement of Rs. 50,000,000 spread over a period of 5 years of experiment. By April, 1965, seven thanas of the Comilla district¹ (in addition to the Kotwali thana) were selected for the first phase under the integrated district program.

The proposal for a "Provincial Training and Research Center in Deep Tube-well Installation, at Comilla," developed in January, 1963 and submitted to the provincial department of Agriculture for financial approval, ultimately was sanctioned in September, 1964 by the persistent efforts of the PARD director.

The Director of Public Instruction agreed to accept some of the feeder schools with F.M. (Final Madrasa) or matriculate imam teachers in December, 1964. These feeder schools would be called extension primary schools which would be attached to neighboring primary schools. Later in March 1965, an evaluation team was set up by the

¹There are 21 thanas in the Comilla district, including the Comilla Kotwali thana.

department of Education, Government of East Pakistan, headed by Mr. Ferdouse Khan with two other members (Dr. F. Davis and Lt. Col. T.B.N. Ibn-Yacob) helping him to study the education program of the PARD. During 1965-66, the department of Education accepted 25 Feeder Schools run by imams as primary extension schools with a salary of Rs. 50 per month.

The family planning action program of the PARD encouraged a mass distribution approach, mentioned also as a commercial project, which was accepted as a model for the organization and field work in the thanas of East Pakistan under the third five year plan (1965-70). The Health directorate sanctioned ten scholarships for one year each for the training of the midwives under the PARD pilot family planning program during 1964-65.

An experiment by the stock officer of the KTCCA for the spawning of carp resulted in 1965-66 in the hatching and nurturing of about 500,000 fish fries. Later a province-wide fishery development program was visualized in the light of the experience gained from the fishery extension program conducted in the Comilla thana during the year 1965-66. Intensive training of Thana fishery officers of East Pakistan was planned. A manual was also prepared to guide the provincial program in the development of fisheries.

A research program on IRRI varieties (paddy) was planned to be conducted in the PARD (Abhoy Asram) farm under the supervision of the PARD in consultation with Dr. L. P. V. Johnson, Resident Rice Research Adviser, Government of East Pakistan. As a result, two types of rice research were undertaken, the varietal trail with 302 IRRI collections and the fertilizer experiment with two varieties--IR 8-288-3 and IR 9-60 in 1965-66. The director of IRRI (Manila) visited the PARD in connection with the rice research in late 1966. The new variety IR-8 was introduced for the first time during the year 1966-67.

In the first meeting of the provincial coordination committee in July 1966, presided over by the chief secretary, Government of East Pakistan, it was decided that the ten projects (7 in the district and 3 outlying) based on Comilla experience should be evaluated by a committee of experts before any more expansion was planned. The committee set up for the purpose published the report, "An evaluation report on the rural development projects based on Comilla experience," by the end of December, 1966. The PARD director prepared a note on its agricultural program for the chief secretary in December 1966 and empahsized that the Comilla program should move 3 to 4 years ahead of the province so that it can lead the province in the field of rural development.

Another evaluation committee was formed in August, 1967 to evaluate the work of 7 thanas of the Comilla district in order to make recommendations whether the experiment should be extended to the remaining 13 thanas of the district. On the basis of the recommendations of the evaluation committee, the government decided to extend the program to the remaining 13 thanas of the district in September, 1967. But it also decided to transfer the Comilla district integrated rural development program to EPADC (East Pakistan Agricultural Development Corporation). As a first step, the project directors of all the 7 thanas who were EPCS (East Pakistan Civil Service) officers, were replaced by EPADC officials on March 1, 1968.

The thana irrigation program (TIP) which was an extended works program was accepted on principle in October, 1967 and was given indication that it might be implemented fully the next year. The entire allotted money of Rs. 73,000 under TIP was utilized for irrigation projects. Later in the year 1968, the TIP plan for the year (1968-69) was prepared and submitted to the government for sanction. In December, 1968, a sanction of Rs. 90,000 was received for the TIP schemes of the thana. Another amount of Rs. 100,000 against the Sonaichari lift irrigation project was also received.

Besides these activities, the PARD was constantly engaged in organizing conferences of high-level officials, workshops and seminars on controversial scientific issues, where research scholars and experts in the field were invited, and also in formulating training programs to suit various purposes. Sometimes the departments took an interest in holding their annual or periodic conferences in the PARD campus and utilized the PARD demonstration models for an exposure to the PARD approaches. The PARD also serves as a venue of many national and international conferences.

This is almost a chronological but very brief description of the multifarious activities of the PARD. It will show how the functional and structural growth of the development process is intricately related with many other factors beyond the particular micro-system. The developmental progression of a successful program depends also largely on the scope of the change agent, in this case, the PARD, which is an intermediary between the people and the government, to fill up the gaps of effective communication between the micro and macro-systems and also within them.

However, the scope of the PARD has also been gradually shaped, besides its programs and usefulness, by the charisma of its first director, Dr. Akhter Hameed Khan. His dynamic role stands distinctly in the process

of interlocking the two systems, micro and macro, as revealed in the foregoing section. It is to his great success that the evolving role of the director has largely been institutionalized and is expected to carry charisma in the position for some time. The author consciously kept the aspect of charisma out of the theme of the dissertation and concentrated more on the methodology evolved in the institutionalization of the roles. For the purpose of the present thesis, the process of institutionalization of the various roles and functions are more central once they have been developed than the analyses of charisma at various levels and its impact on program building and compliance pattern within the organization.

Underlying Principles of the PARD-Role Development

Intermediary Between the People and the Government

It has already been mentioned that the establishment of the PARD was the most significant step towards modernizing rural public administration in East Pakistan. The government realized that to bring out the genius of the people, they should be taken into confidence. It may not be possible for the old departments to establish a new relationship with the people, when they are already plagued by inter-departmental jealousies leading to a lack of cooperation. The PARD played a very important role in bringing the government departments and the people in a close range of working relationships to be reinforced gradually through sharing of responsibilities and obligations. The PARD is assuming more and more a role which makes both the government departments and the people consider the PARD as their own spokesman. Though it is a very tricky and dangerous role, it is very effective as long as the PARD can maintain a climate of learning and cooperation and influence both the parties through its training, seminars, workshops and conferences.

The government's plan to establish the PARD as a genuine and powerful intermediary between the people and the government has done a very important dual job of enhancing the change potentials of both the government departments and the people and leading them to the same sets of change objectives. This intermediary role of the PARD may be schematically drawn as shown in the next page in Figure 6.

But this does not exclude any direct relationship without the PARD as the intermediary. As a matter of fact, both the above pattern through intermediary and the directrelationships pattern exist simultaneously. The direct-relationship pattern may be shown as in Figure 7.

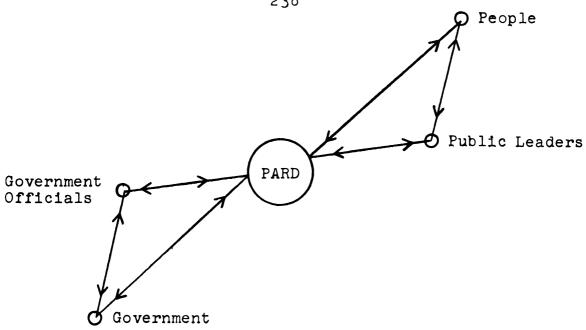


Figure 6.--Intermediary Role of the PARD.

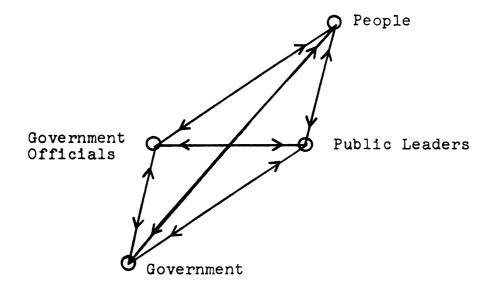


Figure 7. --Direct-relationship Pattern between the People and the Government.

The direct relationships pattern existed both before the PARD had exerted any change force and also after it became instrumental in stabilizing institutional patterns. But this must not be construed to mean that the PARD is not concerned about the future growth of a "stabilized pattern." The word 'stabilization' is not meant to give an idea of rigidity or freezing of situations, but rather a conscious acceptance of an institutional pattern which is capable of its own future adjustment. This implies growth which makes the PARD free for an intermediary role at a higher plane. Ideally, the PARD concentrates its efforts in the higher plane looking for the most pragmatic track from among the various possible alternatives for reaching the new change objective and allowing the other institutional patterns to adjust themselves on their own. If everything is normal and healthy in the system, it is assumed that the thrust for change in the higher plane for a new change objective consistent with the goal, is expected to bring in the necessary adjustments in the socalled lower plane patterns. The development being a continuous educational process, this is quite natural. In other words, this implies the characteristics of an open system. An analogy may be drawn to describe the PARD role in this respect. Like the most trained and invincible army, the PARD battles in every sector of the war-front, leaving the conquered land for others to consolidate.

Program-building Process

The PARD in its efforts to enrich its extension programs with the village communities identifies certain problems which need immediate tackling. As an intermediary the PARD knows what resources or services are available with the government departments for the purpose. It can therefore help plan whether a project should be taken up with the assistance of nation-building departments. If it is possible, generally the project starts as a collaborative pilot project, where the PARD takes the advisory role and leaves the execution to the government departments and the people involved.

In most cases this approach seems to be most satisfactory for three reasons. First, the credit of the work goes to the department. The department does not feel that some other agency is going to snatch away the credit which they have built by spending their departmental budget and putting forth the efforts of their technicians. The PARD does not claim any credit for technical work, since it does not have for most of the purposes technicians or adequate budget of its own for such work. The PARD does not feel insecure without such credits because of the nature of its work. It does not intend to be a servicing agency, when a servicing agency already exists. Although the PARD in the long run gets credit for mobilizing the human and social forces in the villages,

the departments do not mind in sharing credits in such a manner with a non-technical rival.

Second, most of the departments do not have extension wings to work right in the villages. Even though some have, they are not properly equipped with appropriate knowledge and techniques to render their services efficiently. So any help in this direction is generally welcomed by them. It has been their experience, too, that when a project is undertaken with an organized group in the village, there is always a greater chance of success. The organized cooperative groups in the villages constitute a very strong base for taking up various developmental projects.

Third, to carry out most of the projects effectively in rural areas, there is a need for an interdepartmental approach which will be further discussed in the next section. In spite of the fact that they are mutually handicapped because of a lack of inter-departmental approach, it is rarely possible for them to achieve interdepartmental cooperation persistently for a long period. In such a situation the participating departments like to have some mediator agency like the PARD in the corporate body.

While the presence of the PARD is the first step in getting the departments involved, it need not be nor is it desirable for it to be a permanent feature. In the absence of the institutional means for coordination and

cooperation, the PARD may play the missing role, but for stabilizing the process and integrating it in the system, some other built-in coordination system has to be evolved. The success of the PARD and the collaborative project largely depends on the extent to which the system has built up a sound mechanism of coordination and cooperation.

If collaborative pilot projects are not possible. then the PARD takes the initiative by taking up the pilot project on its own. Generally in such cases, the PARD takes as much help as is possible from the existing agencies and builds up the rest by, for example, organizing training courses, setting up demonstration units, and establishing an ad hoc agency to take care of the day-today administration. In such situations, the PARD sometimes tries to borrow a technician temporarily from the government or if the work is so different that it requires special types of persons, where the departmental people would be quite unsuitable, the PARD either recruits its own people and trains them, or puts the project under one of its own social scientists backed by a committee of other faculty members belonging to allied disciplines. If no funds are available from any source, the PARD uses its own funds.

The pilot project is then treated as an exercise in action research. The purpose is to evolve a system by

which the problem can be tackled most effectively, while also documenting and evaluating results. One of the most significant purposes of the pilot project, besides helping the villages in their development programs, is to evolve an organizational model with its working procedures, and training methods. The PARD's purpose in such cases was always to evolve a system which might be acceptable to the relevant government department so that the pilot project could ultimately be handed over to the department, where it really belongs. But in making it possible, the PARD takes the responsibility of documenting every decision and action with cost and return analysis in a scientific manner for government appraisal.

The PARD sometimes has to continue a pilot project for several years backed by several annual evaluation reports, until finally the government becomes interested in taking up the project. If the government wants to take up the project, the PARD action program still continues to remain a model and is in that case 3 or 4 years ahead of other similar projects. During this period the PARD generally expects that even the Comilla project should be financed by the department and staffed by the departmental people as in other cases, with a nominal additional budget for further experimentation and evaluation. With the acceptance of the pilot project by the government, the PARD also takes the responsibility of preparing manuals

for training which are updated or revised year to year on the basis of further knowledge gained. It takes the responsibility of training either the new personnel to be recruited for the job or the trainers of the program as the case may be, utilizing the Comilla project as a model demonstration, and lastly, continues to take interest by remaining in the evaluation team for the annual evaluation of the program.

Many of the Comilla projects have been accepted by the government for further trial in other areas, or on regional or national basis, some others are still under consideration, and some few will take quite a long time to find a place in the existing politico-administrative structure. The PARD has received very generous assistance from the government to test its ideas in the form of pilot projects, from which the government could also be benefitted for further development planning. The PARD has also received financial and technical assistance from many private and international agencies besides the Ford Foundation.

This program of action research undertaken by the PARD also serves to achieve its objectives as follows:

- (i) It helps in understanding and identifying problems of rural development and sharpens the insight of the faculty members.
- (ii) It helps in providing valuable contents for the PARD training courses.

- (iii) The management of these pilot projects is shown to the officer-trainees as models of administration.
 - (iv) The projects with their annual evaluation reports supply valuable field data for the policy planners. They provide a cheap and convenient way of experimentation on various ideas before implementing them on a large scale.
 - (v) All this helps in developing the Comilla program itself.

Interdepartmental Approach

The PARD has played a very important role in developing an interdepartmental approach for development planning and administration. The PARD's experience in dealing with rural problems has also strengthened some of the departmental programs. Though it has brought some of the departments into prominence, it has also emphasized the fact that some of the other departments which were not considered to be very important cannot be excluded from the main-stream of development efforts. This kind of an integrative role is only possible by an organization like the PARD, which is prestigious but yet has no administrative control over anybody. For its own routine work even in the lowest level, it has to seek cooperation from the various departments. This unique position helps the PARD to maintain a spirit of cooperation with the existing government machinery for its own survival, yet on the other hand, the existing departments

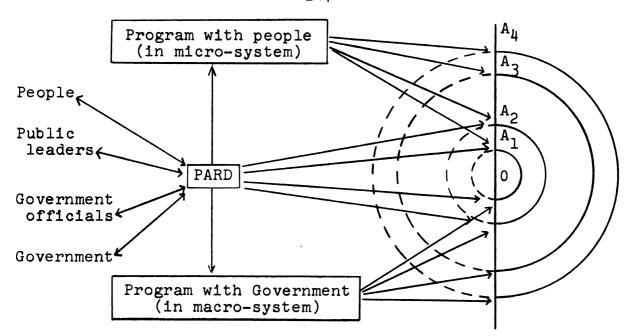
feel encouraged to seek advice and help from the PARD in matters of rural development where the interdepartmental approach is necessary or where better techniques to reach the masses are sought, without any feeling of insecurity. The PARD, in its position of rising status due to its specialty in rural development, is now playing a very significant role in many of the Provincial Committees.

Schematic Presentation of the Program-Building

The educative process at work among the various parties involved in the program-building helps in constructing further action programs which are gradually reinforced through an integrating process of sociopsychological maturity of the groups and the evolution of the politico-administrative structure.

The following schematic presentation will show the process (Figure 8).

The PARD as intermediary between the parties also works as an intermediary between the two systems--micro and macro. The process is assumed to start from somewhere at 0, since the micro system cannot afford to miss the resources and services of the macro system already established and also of the PARD. The PARD wants to reinforce both and bring them closer together. But once the process of mutual reinforcement starts, the two programs become increasingly integrated. These phases



Note: Program building frontier starts around 0 and gradually extends with radii OA_1 , OA_2 , OA_3 , and OA_4 integrating the two systems macro and micro more and more in each successive stage.

Figure 8.--Program-building Process at Different Phases of Development.

are represented by the circles of program frontiers¹ with radii, OA_1 , OA_2 , OA_3 and OA_4 .

On the program frontier, the different phases of program-building have been shown as discrete circles for ease of explanation. But in actuality the program frontier expands as follows with effective time spent in interaction (Figure 9):

¹Shortened term meaning "program-building frontier."

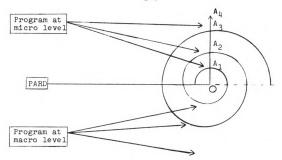


Figure 9.--Program-building Program with Everwidening Program Frontier.

The program frontier is built around 0 with some of the projects in the micro level which can benefit most by the programs of the macro-level and builds up an integrative and reinforcing program with a set of complementarities in that phase. Since this is a dynamic process, one phase merges with the other phase and the discrete circular program frontiers at various phases merge into an ever-widening program frontier related to the amount of effective time of interaction.

Schematic Presentation of Institution-Building

The process of program-building forces another vital process of institution-building. It may be assumed for the convenience of schematic presentation separate

phases of institution-building around a given basic structure. These separate phases of institution-building are initiated by each and every project of the set of complementarities within the given phase. The net institutionbuilding is a more stable process and is effected by the total pull of the forces of the complementarities.

In Figure 10, the white circle in the middle represents the basic institutional structure, the starting stage of the institution-building process. The Projects A, B_1 and C_1 represent the complementarities of the first phase indicated by the circle. The institutional changes in the basic core are represented by the black areas in the diagram which are proportional to their importance. The complementarities in the next phase are the projects D, E, F, and C₂, where D, E, and F are new projects, while C_2 is either an expansion or modification of C_1 of the earlier phase. They also have their respective pulls represented by shaded areas with straight lines on the resultant structure after the first phase. Then comes the third phase with complementarities G, B_{2} , H, and I where G, H, and I are new projects, while B₂ is either the expanded or modified form of B_1 of the first phase. The impact of those projects on institution-building has been shown by the areas with dots.

This is a very simple presentation of a very complex phenomenon. The variety and rate of project formulation, the rate of growth of changing phases and the growth of

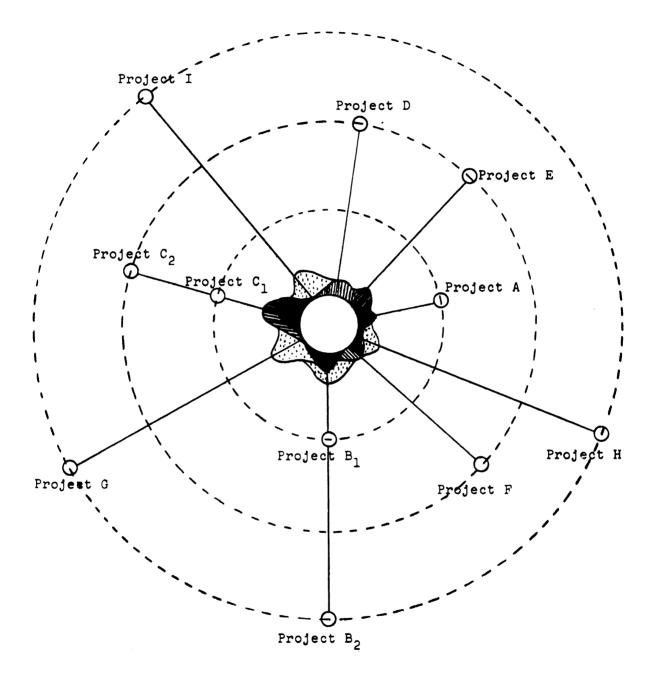


Figure 10.--Institution-building Process.

institutions are all bound up with one another and also with other innumerable factors some of which have been discussed. But it is far from measuring the intricate myriad forces that shape the institution-building in a particular case. However, one is justified in being more than satisfied if at this stage, it is possible to discern some of the relevant forces and their direction of influence.

Taking into consideration the dynamic aspect of the institution-building process, the discrete stages shown by the set of complementarities may be considered in actuality as merging into an ever-widening program frontier forcing a net amount of institution building on the basic institutional structure. The institution building process being a stabler process may lag behind the program-building process. The net amount of institution building may also be taken to mean that both positive and negative amounts are added giving a resultant amount at every point of time.

CHAPTER VIII

FACTOR ANALYSIS ON THE COMILLA COOPERATIVES DATA

Introduction

The present study on the Comilla program is the first venture of its kind which analyzes the developmental process concerned in the perspective of the whole program. Information was gathered on more than 500 variables on the village cooperatives, assumed to have some relationship with the evolving development processes. All types of data--nominal, ordinal, and quantitative--were collected under these variables to cover the various aspects of the program. It was also planned to conduct a factor analysis on the data.

Factor analysis has its most obvious role where controlled experiment is difficult or impossible, and the variables have to be examined in their natural situations. The factor-analytic procedure is indispensable and without substitute in those early stages of a science where the natural functional wholes remain to be discovered in the chaos of multitudinous variables. This technique discovers, from the array of thousands of

correlation coefficients (r), those variables which behave in a consistent pattern in relation to other variables. Underlying consistencies manifested by the variables are known as factors and are the real functional unities influencing the whole.

The entities which the investigator with a broad approach most frequently wishes to relate as dependent and independent variables are themselves generally abstractions from a considerable set of operational variables. Attempts to claim that if a single "symptom" of the abstract concept appears as predicted, the hypothesis about the concept is correct, may be highly misleading. The variance in any single, operationally defined symptom (dependent variable) is usually determined by many in-The part due to the concept in question can fluences. only be determined from the identification of the latter as a factor, by other variables through which it is expressed. A rich well-thought-out concept, founded on patient observation, will generally be rooted in several variables and will generally permit inferences as to combinations of relationships among them. Factor analysis is ideally adapted to testing theories extending to simultaneous relationships (patterns) among several variables.¹

¹Raymond B. Cattell, <u>Factor Analysis: An Introduc-</u> <u>tion and Manual for the Psychologist and Social Scientist</u> (New York: Harper and Brothers, 1952), pp. 358-359.

However, it has been pointed out that in the exploratory phase it is at first unimportant whether a specific hypothesis as to the number or nature of the factors that exist has been chosen or not. It is best to use one factorization for hypothesis production and a second distinct factorization for hypothesis testing. The "empirical" constructs put forward through examining the influences (performances) loaded in those respective factors, are tentative in nature; but they greatly help in formulating well-developed meaningful hypotheses and appropriate experimental designs in later efforts. This is one of the main reasons why the author did not start with definite hypotheses but concentrated more in analyzing the existent socio-economic pre-conditions, various strategies evolved, and institutions developed as a process of development within the Comilla program. The results of the factor analysis may reveal the underlying trends and forces which may be helpful in introducing new strategies and modifying some of the old strategies.

Principal Components Solution and Rotation of Factors by Varimax Criterion

The process of factor extraction can be extended to identify constellations of variables constituting separate and unidimensional factors by a method known as the principal components solution.¹ This solution involves an n-dimensional space with all the variables as vectors of the space. They are projected on the principal axes to account for the variances due to those factors represented by the axes. We have used this solution as the first step of our factor analysis. But the principal components have no fixed psychological meaning and are at the mercy of the particular choice of variables in the questionnaire (or tests in the battery). To arrive at any unique psychological or scientific meaning, they need to be rotated later to meet Thurstone's original concept of simple structure. For factor rotation Kaiser's varimax criterion² has been used.

Kaiser proposed this modification over "quartimax criterion" suggested by Neuhaus and Wrigley.³ Instead of simplifying the rows of the factor matrix--the variables, which often produces a general factor, he formulated "varimax criterion" to simply the columns of the factor

¹The method was invented early in this century by Fearson and later rediscovered by Hotelling (1933) with successive extraction of factors and by Kelley (1935) with simultaneous extraction by electronic computers.

²Henry E. Kaiser, "The Varimax Criterion for Analytic Rotation in Factor Analysis," <u>Psychometrika</u>, Vol. 23, No. 3 (September, 1958), 187-200.

³J. O. Neuhaus and Charles Wrigley, "The Quartimax Method--An Analytic Approach to Orthogonal Simple Structure," <u>British Journal of Statistical Psychology</u>, Vol. VII, Part II (November, 1954), 81-91.

matrix--the factors themselves, which with further modification gives a solution that tends to be invariant under changes in the composition of the set of variables (or test battery), thus fulfilling the concept of simple structure.

Detailed Procedure of the Factor Analysis on the Comilla Data

In this case 183 variables were available which were all quantitative or ordinal with only a few dichotomous. Some of these variables were deduced by linear transformations. of some other variables, such as "rate of increase of coverage ratio," which was found from the following variables: i) number of households covered by the cooperative membership until the end of 1967-68, ii) number of total households in the village at the end of 1967-68, and iii) number of years of the existence of the cooperative. Some other variables were operationalized into a single score by an assigned weightage system, such as "educational points obtained by the village for its total education (primary, secondary and higher)." For the purpose of factor analysis by the CDC 3600 computer program which can take a maximum of 90 variables, it was decided to select 90 out of those 183 variables. To facilitate selection of these 90 a correlation matrix (183 x 183) was obtained by putting

the 183 variables in a computer program. The new variables were selected according to the following criteria:

i) The variables should have considerable variance among the village cooperatives. The analysis cannot reveal any factor, unless variables have considerable variance around those factors.

ii) The variables should ensure proper density manifesting the particular phenomenon considered to be relevant.

iii) Variables of the same kind having a proper density should also balance in representation with variables from other areas. The total population of phenomena should be covered by even density of representation to avoid mixing of first- and second-order factors.

iv) A large matrix of variables is vastly preferable to a small one, to get clear distinctions when factors multiply in a certain field.

v) Variables should be selected that show relatively little correlation with other variables in the same area, but (if possible) show high correlation with variables in other areas. This procedure tends to generate factors that cut across anticipated areas (or testing instruments) and are therefore more likely to

aid, for example, in the development of sociological constructs rather than mere "mathematical artifacts."¹ In addition to the above processes of selection, the variables having very low inter-correlations with all other variables should be eliminated because they will contribute little to definition of factors.

Since there are only 26 observations for each variable, the correlation coefficients will be less reliable. One may raise a question that the errors inherent in these coefficients may counteract to conceal the underlying consistencies. Of course, had there been a larger sample, there would have been more reliability in the prediction of the factors. There also could have been more factors with the increase in the rank of the correlation matrix based on a larger number of observations. Conceding this weakness in the analysis, it may also be asserted that these 26 observations were selected to be strategically critical in throwing light on various factors of the development process. To the extent the variables are close to identifying those underlying factors, or covering the whole field of contents (as to allow the technique to bring forth a new order of variables to form rewarding socio-psychological concepts), the efficiency of the data would be increased.

¹Andrew R. Baggaley, <u>Intermediate Correlational</u> <u>Methods</u> (New York: John Wiley and Sons, Inc., 1964), p. 165.

There is an advantage in having 90 variables to work with. Once the presence of the factor is discovered, it has been comparatively easier to identify and name it.

Another question may be raised with regard to the small proportional accountability of variances by the individual factors. The highest variance for these factors is only 12%, though 8 of them together account for 61%, 10 of them. 71% and 12 of them 79% of the total variance. No one factor can really explain much of the variability in the global "development process." A good number of factor analyses in various psychological fields yield five or six major factors with two or three very dominant, explaining a considerable variability in the data. The present case is not so simple. The development process in a new country with a traditional base is a complex process. In such a situation quite a few factors may be anticipated to be equally important and consequently the variances proportionately shared to be small, though the total variance explained by them is quite satisfactory.¹

However, the purpose of using the result of the factor analysis is to have more insights in explaining

¹The χ^2 -test developed by D. R. Saunders is available for a test of significance for any single factor (rotated or unrotated) which has become very small in its variance and questionable in the course of rotation. The test has been given in Cattell, <u>op. cit.</u>, p. 304.

some of the facts already observed. The knowledge of these various factors will also help to include more relevant dimensions in future research. A step further could be taken to formulate prediction formulas from the knowledge of these factors. But for the time being, it is left as a future exercise.

A factor was accepted as a genuine factor when (1) it explained a sizeable portion of the total variance, (2) it contained variables with both high and clean loadings (which means that the variables had high loadings with the particular factor and low loadings with all other factors), and (3) it was logical to treat the factor as one dimension related to the development process of the village cooperatives. In selecting the best variables for a particular factor, the following criteria were used: (1) the variable explains a high proportion of the common factor variance or high communality (.40 or above); (2) the variable has a high factor loading (.50 or above); (3) the variable is clean; (4) the variable appears consistently in the same factor as the rank of the factor solution is increased; and (5) the selection of the variable as a measure of the underlying factor is logically sound.

In view of the smaller number of cases and larger number of variables, a device by Burt and Stephenson could also be used, know as the Q-technique, which is

really a transposed factor technique. This would probably arrange different types of cooperatives from the constancy of pattern over the variables. This technique consists in correlating persons (here in this case, cooperative groups) over the variables, instead of variables over the persons (cooperative groups). Usually, in order to get r's of ample statistical significance a large population of cases and a reasonably small group of variables are taken. For Q-technique the converse holds; it is not particularly needed to insure many cases, but there must be many variables if the r between any two cases is to be reliable. In the present investigation it was difficult to increase the sample size of cooperatives and so the number of variables observed for each cooperative was increased with much economy of time. The group was treated as a unit like a person and responses were collected on various items from a group concensus. The group concensus or group indices were used as the variables. Even when we dealt with individual traits like the various characteristics of the cooperative manager, it was considered as a special trait of the group, labelling his set of traits as a necessary and distinct dimension of the cooperative group. Actually what was really being measured was the "syntality" (syntality is to the group what personality is to the

person) of the cooperative group as indicated by Cattell.¹ The Q-technique along with the traditional procedure (R-technique), would probably throw interesting insights on various underlying factors of contents and groupings in the entire developmental processes of the Comilla cooperatives. This is also, for the time being, left for the future.

Identification of the Factors

Twelve theoretical factors have been found, which will be mentioned as F_1 , F_2 , . . . , and F_{12} until they are named from an examination of the variables with high and clean loadings with the factor. The factor loadings of the variables are given with positive and negative signs before the number of the variables. The labelling number of the variables are obtained from the original list of ninety variables which were used for factor analysis. The direction of positive and negative factor loadings may be understood from the scale of measurement of the variable. What the increasing score of the variable indicates with respect to the actual meaning of the variable will be explained by words like "less" or "more," "positive" or "negative," "newer" or "older" etc. For example, variable no. 1--the date of starting of

¹Raymond B. Cattell, "Concepts and Methods in the Measurement of Group Syntality," <u>Psychological Review</u>, 55 (1948), 48-63.

the cooperative--has a negative scale indicating that the higher the score, the newer is the cooperative. The coding starts as $1959-60 = 0, \ldots$, and 1967-68 = 8.

Factor F_1 includes the following variables:

Factor Loadings	Number of the variable	Description of the variable	Higher scores indicate
+.9143	1	Date of starting of the cooperative (old to new)	newer
+.9228	2	Date of registration of the cooperative with the central association (old to new)	newer
7904	5	Number of pioneer members dropped out from the coopera- tive till 1967-68	higher
+.8853	12	Load absorption in terms of no. of loan receiving years arranged according to the period of existence of the cooperative	less
8512	13	Total amount of loans re- ceived by the cooperative till 1967-68	more
8484	16	Total loans repaid by the cooperative till 1967-68	more
8409	8	Cumulative share purchased by the cooperative till 1967-68	more
5654	4 *	Number of members dropped out from the beginning	higher
*This mark indicates that this variable is on the border line with respect to "cleanliness."			

"cleanliness."

In other words the underlying factor, F_1 , embracing the above variables, indicates the direction as could be understood from: newly established cooperatives, newly registered cooperatives, fewer number of pioneer members dropped out, less loan absorption in terms of loan receiving years, less total amount of loan received, less total amount of loan repaid, less cumulative share purchased, and fewer number members dropped out from the beginning. This obviously indicates the state of new entrance of the cooperative in the system, a stage of probation, characterized by young groups. The dominant characteristics of this stage are: (i) recent entry into the system, (ii) no dropping out of members or a solid membership state, and (iii) very little transaction on loan and share. This factor can easily be explained from the policies of the central association. It is required for each cooperative to stay under a probationary stage which is used both for the education and preparation of the group and also for evaluation of the group by the central association. The cohesiveness in the group, the size of which is still small, is expected to be high during this period and there is very little dropping out. The new groups have to wait to get loans and so, naturally, to repay loans up to a stage of demonstrated solidarity. This is a pain-perspective for new groups imposed by the central association. The amount

of share purchased is small because of fewer members and the short existence of the cooperative. This factor may be called the probation factor.

Factor F₂ includes the following variables:

Factor Loadings	Number of the variable	Description of the variable	Higher scores indicate
5836	21	Percentage of families hav- ing 2.01 to 4.00 acres of land in the village	higher
+.8721	24	Percentage of families below subsistence level in the village	higher
7006	25	Percentage of families at subsistence level in the village	higher
6053	26	Percentage of families above subsistence level in the village	higher
+.6000	39	Experience of organizational work in the village (success or failure)	less
 5863	41	Modal size of land-building of the cooperative members	larger
+.8860	42	Percentage of families hav- ing income below subsistence level among the cooperative members	higher
6837	83	Experience of successful events in the village through organizational procedures (response by the manager)	more
6123	43	Percentage of families having income above subsistence level among the cooperative members	higher

Factor Loadings	Number of the variable	Description of the variable	Higher scores indicate
+.6377	19*	Percentage of families with no cultivable land in the village	higher
7090	23*	Modal size of land-holdings per household in the village	higher
*The variables are on the border line with			

"The variables are on the border line with respect to cleanliness but have high factor loadings.

The factor F_2 , through these variables, indicates its direction as: lower percentage of families having land in the range 2.01-4.00 acres, higher percentage of families with no cultivable land, and smaller modal size of land-holdings in the village; lower percentage of families at or above subsistence level and higher percentage below subsistence level in the village; higher percentage of families having income below subsistence level, lower percentage having income above subsistence level and smaller modal size of land-holding among the cooperative members; lastly, less experience of organizational work and less experience of successful events in the village. This factor represents the underlying characteristic of poor villages with poor cooperative members (both in land and income), having no organizational experiences in the village. This factor may be called desperate myopia. The people are desperate with individual poverty and suffer from a kind of myopia which

makes them atomistic preventing them from doing anything in an organized manner.

Factor ${\rm F}_3$ has the following variables with high and clean loadings:

Factor Loadings	Number of the variable	Description of the variable	Higher scores indicate
+.6713	30	Number of functionally literate persons (male and female) in 1967-68	higher
+.9311	32	Total persons (male and female) formally schooled (primary level) before the cooperative came into being	higher
+.9312	34	Educational points obtained by the village for its primary education before the cooperative was started	more
+.9142	36	Educational points obtained by the village for its total formal education (primary + secondary + higher) before the coopera- tive was established	more
+.9247	37	Educational points obtained by the village for its total formal education (primary + secondary + higher) in 1967-68	more
+.7754	80	Gain in educational points for total formal education during the period of the cooperative	more
+.6339	29	Number of functionally literate persons (male and female) before the coopera- tive came into being	higher

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The factor F_3 includes most of the variables in relation to functional literacy or primary education of the total village, formal attendance of schools, the educational points obtained by the total villagers both before and after the establishment of the cooperative, and the increase of educational points during the period of the cooperative. Some of these variables also include higher education both before and during the period of the cooperative, and also at present. But higher education, or even education beyond primary level, have not come in this factor as separate variables, as such. This may prompt one to explain their appearance as a partial element in this factor due to the lumping effect of these variables with the variable on the primary education, which is by far the most dominant variable. However, it is not possible to infer from this whether higher and secondary education work counter to primary and functional education so far as the developmental process is concerned.

Some other variables may be brought in from the border line by stretching the limits beyond permissible range. These variables which do not fall in the category of formal education may throw more light on the nature of the factor. The variables are:

Factor loadings	Number of the variable	Description of the variable	Higher scores indicate
+.4431	4	Number of members dropped out from the beginning	more
+.4446	55	Members' efforts to repay loans in time	less
4701	79	Villagers' past remembrance about their achievement (shameful-proud)	prouder
+.5158	60	The educational process evolved through the coop- erative inculcating an interest at individual level for savings and share pur- chases of the cooperative	less

Variable 60 has the acceptable highest loading (.52) with the factor and variable 79 has the highest loading with the factor but less than .50 (i.e., .47), but none of them are very clean. The other two variables, 4 and 55, have the second highest loadings with the factor (both .44), having the highest loading with other factors, which means these are also not clean. These variables indicate that more members dropped from the beginning, less effort among the members to repay loans in time, past remembrance of the villagers about more shameful events and less interest manifested at individual levels for having more savings and share purchases--all these go together with the factor with its dominant variables indicating more functional and general education in the village. However, so far as this analysis is concerned the formal education will be considered as an independent dimension in the development process. But it may have a negative influence on the process if the interpretation of the second set of variables is justified which seem clearly to indicate a direction of the influence. The factor may be named tentatively as "Formal education factor," which is also associated with some kind of instability and anti-thrift tendencies.

Factor F_{h} includes the following variables:

Factor loadings	Number of the variable	Description of the variable	Higher scores indicate
6339	48	Identification of the member with the cooperative group	less
+.6825	67	Economic position of the manager	better
+. 5646	35*	Total increase of educated persons in the village in the matriculation level (secondary Final) during the period of the coopera- tive	greater
 4640	58**	Reasonable sharing of risks by the members (adventurous but rational)	less
+.4409	81**	Gain in educational points for total female primary education during the period of the cooperative	mo re
*The variable has the desired highest loading, but on the border line with respect to cleanliness			
	**Variable than .50	s have the highest loading but	less

If only the variables 48, 67, and 35 are considered to describe the factor, it may be characterized by more identification of the members with the cooperative group. better economic position of the manager and greater increase of educated persons in the village in the matriculation level (secondary Final) during the period of the cooperative. The other two variables, 58 and 81, having highest loading with the factor (but less than .50) indicate more reasonable sharing of risks by the members and more gain in educational points for total female primary education during the period of the cooperative. This means that those villages where higher education (at secondary Final level) and female primary education are increasing during the period of the cooperative, where the manager is in good economic position, the identification of the members with the cooperative is high, and where members are willing to share reasonable risks--such villages form a constellation.

This may mean cohesiveness of an enlightened group. All these characteristics may seem desirable for the development process. Guessing the influence of the factor on the overall development process from the first attempt of factorization is somewhat hazardous. From the fact that increases in education in the secondary final level and female primary education constitute a very small proportion of the total education of the

village, it may be concluded that they together bring those villages where only a few families are advancing educationally. So these are the villages with a toplevel minority of an educated elite. The manager also belongs to the economically solvent class. The composition of F_4 when only 9 factors were rotated is presented below which may give interesting insight into the meaning of the factor:

Factor loadings	Number of the variable	Description of the variable	Higher scores indicate
+. 5927	35	Total increase of educated persons in the village in the matriculation level (secondary Final) during the period of the coopera- tive	greater
+.5120	67	Economic position of the manager	better
+.5417	64	Age of the manager	higher
5344	72	Annual growth rate of membership	higher
6983	74	Rate of increase in the coverage ratio (per year)	higher

This gives the direction of the constellation as greater increase in matriculation level education during the cooperative period, better economic position of the manager, higher age of the manager, lower annual growth rate of membership, and lower rate of increase in the coverage ratio. These variables indicate that this

factor represents a kind of corporate monopoly by a solvent and educated elite which is closed to other villagers. This may mean, in other words, that this cohesive and closed corporation tends to monopolize in receiving all facilities through the cooperative and is not interested in widening the membership base. The manager being solvent, he sacrifices the small remuneration which comes from the central association based on the membership size. But instead, with high collateral, he and his group expect to get a greater amount of loan each year for their use, which may be more attractive on the whole for the members of the corporate monopoly. It may give them power of capital to buy others' land and monopoly of agricultural services to rent at a higher rate to non-members (a new form of money-lending). The higher age of the manager with his economic position indicates that he has already an established status in the village and is free from any threatening insecurity from the non-members who are left outside.

This cohesive enlightened group, or the closed corporate body, may be good for the program or not according to the purpose of the developmental program. They may turn out to be the future entrepreneurs who would develop agriculture rapidly, or may turn out to be a new privileged class of money-lenders. Here again it is felt that a second analysis on fresh data

with new variables introduced to shed more light on this factor would be very useful.

Factor F_5 includes the following variables:

Factor loadings	Number of the variable	Description of the variable	Higher scores indicate
9350	7	Average annual savings by the cooperative	higher
9017	9	Average annual share pur- chase by the cooperative	higher
7657	14	Average annual loan received by the cooperative	more
9184	75	Rate of increase of share purchase by the cooperative	higher
9387	76	Rate of increase of capital (annual rate) in the cooperative	higher
6875	3*	Membership size in the year 1967-68	larger
+.5083	85**	Presence of women members in the cooperative (enrollment) in 1967-68	fewer
+.5198	63 **	The desire established by the educational process in coop- erative work in individual members for increasing new knowledge and training, in- cluding efforts to read and write.	negative
*The variable has the desired highest loading but on the border line with respect to cleanliness.			
		colleg have second bighost lood	~ ~~

**The variables have second highest loadings with the factor with loadings greater than .50 This factor F_5 includes the variables which show an inability to accumulate savings, buy shares and in general to build up capital and also to absorb loans. These variables are somewhat free from the influences of longer or shorter existence, since they are all average annual rates, and indicate an inherent lack of capacity to build up capital. They are also associated with the smaller size of membership of the cooperative in 1967-68. The smaller size of the membership is generally associated with smaller capital formation. The smaller capital formation is again associated with a smaller amount of loan disbursed, which may again limit the number of members.

If the other sociological variables are considered, namely 85 and 63 for an insight, it can be seen that villages which have fewer women members enrolled till 1967-68 and less eagerness developed at individual level from the cooperative work to absorb new knowledge and training go together in this consistency. The presence of women members in the cooperative is associated with a desire for savings, thrift and economic gains. So this factor indicates either an intrinsic lack of capacity for capital accumulation which keeps them ineligible for loans thereby stunting their growth, or lack of desire or initiative to form capital. The factor may be considered to represent "weakness in capital formation." Factor F_6 includes the following variables:

Factor loadings	Number of the variable	Description of the variable	Higher scores indicate	
+.7713	28	Occurrence of social con- flicts in the village before the establishment of the cooperative	less	
7651	31	Percentage increase of functional literacy during the period of the coopera- tive	higher	
5805	78	Events remembered as shame- ful moments of degradation	more	
+.6931	82	Outlook toward women's edu- cation	favor- able	
5527	77	Proud moments of past achievement remembered by the villagers	more	
6570	38 [*]	Whether women encouraged for higher education	no	
+.4192	70**	Impact of various training courses and conferences on the skill of the manager	less effec- tive	
*The variable has the desired highest loading but on the border line with respect to cleanliness.				
** The variable has the highest loading but less than .50.				

These variables, excluding the last two, indicate that less frequent occurrence of social conflicts in the village before the cooperative, lower percentage increase of functional literacy during the period of the cooperative, fewer events remembered as shameful moments of degradation for the village, favorable outlook toward women's education and fewer proud moments of past achievement remembered by the villagers--all go together to form a consistency. If the other two variables excluded above-encouragement of women for higher education, and training courses and conferences less effective in improving the skill of the manager--are considered to go in the consistency, the interpretation of the factor gets complicated.

The villages with fewer social conflicts before the cooperative, fewer events remembered either as proud achievement or shameful degradation, lower percentage increase of functional literacy during the period of the cooperative, but a favorable outlook on women's education and even encouragement in the village for women's higher education, and lastly the villages which are less impressed by the training courses and conferences to improve the skill of the manager form this consistency. This may mean that these villages are urbanized and liberal to women for economic reasons and disinterested in village affairs and culture which inculcated in them an aloofness from the community. Also they are not so much interested in agriculture. The above description of the factor seems to be too imaginative, and may be far from the implication of the genuine However, it seems to be certainly possible to factor.

have a group with the above attributes, i.e., having a community feeling somewhat loose and so having no serious social conflict, a favorable outlook toward women's education and so an aspiration for it, and having an unfavorable attitude toward the KTCCA training courses and conferences, if the community is somewhat urbanized and less interested in agriculture and cooperative industry. The factor may be considered to represent "urbanization."

Factor F_7 has the following variables included in its constellation:

Factor loadings	Number of the variable	Description of the variable	Higher scores indicate
+.7177	66	Whether land was brought under cultivation by the manager by any (one, two, or all) of the three meansshare-cropping, renting by cash, or mortgage deeds till 1967-68	No
5644	55	Members' efforts to pay cooperative loans on time	lower
+.5479	69	Feeling of the manager about working with this group	less pleas- ant
+.4848	49 **	Whether the traditional leaders are still active according to the manager	No

Factor loadings	Number of the variable	Description of the variable	Higher scores indicate
6400	63 *	Increased efforts have developed among the members a desire to break with illiteracy and they are more eager to absorb new knowledge and training.	No
	has also another	able has the highest loading an acceptable high loading factor. able has the highest loading	with

**The variable has the highest loading but less than .50.

These variables together indicate that the manager has taken no advantage of opportunities available to him to make his own fortune and is dutiful and hard at work (the manager in collusion with other influential members could get a disproportionately larger share of loans to invest in procuring more land for his own benefit). Members' efforts to repay cooperative loans are higher and they have developed a genuine eagerness to absorb new knowledge and training through the cooperative work and are interested in learning reading and writing. The traditional leaders also seem to be less dominant.

This indicates that the cooperative leadership is strict and free from selfish motives, generating an atmosphere of commitment among the members. This committment induces repayment of loans on time. Learning of new knowledge and skills through training indicates effectiveness of the program. The traditional leaders are not so active. This factor may be considered to represent"organizational health."

Factor F_8 has the following variables which are very strongly grouped together:

Factor loadings	Number of the variables	Description of the variable	Higher scores indicate		
+.8405	53	Members' attendance in weekly meetings	less		
+.5487	54	Members' interest in learn- ing improved skills	less		
+.6902	57	Members' loyalty to the cooperative as a whole	less		
+.4291	18*	Number of households in the cooperative village	higher		
+.3965	43**	Percentage of families hav- ing income above sub- sistence level	higher		
4069	47**	Percentage of cooperative members with education in the range "class IV to class V"	higher		
+.4280	15 ^{**}	Number of years loan- offering was withheld	greater		
*The variable has the highest loading but less than .50.					
** The variables have the second highest loading (which is less than .50) and also not clean.					
The	ese variable	es indicate the direction of t	he		

factor as lower attendance in weekly meetings by the cooperative members, less interest of the members to

learn improved skills and less loyalty of the members to the cooperative as a whole.

The other variables indicate that higher number of families in the village, higher percentage of families with income above subsistence level, lower percentage of cooperative members with education in the range "class IV to class V" and greater number of years loan-offering was withheld from a cooperative go together in this consistency. The factor may be named "Lack of patience for delayed gratification" (also with implication "irrelevancy of purpose").

Factor F_q is explained by the following variables:

Factor loadings	Number of the variable	Description of the variable	Higher scores indicate
5228	27	Percentage of families at higher levels of income (rich)	higher
7130	88	Opinion about the family planning program of the PARD (held by the manager)	unfavor- able

These two variables are very clean with respect to this factor. The villages with lower percentage of families at higher levels of income (rich) go with the manager's favorable opinion about the PARD's family planning program. This factor represents the "urgency of birth control." It is interesting to note that the villages with lower percentage of rich families (and not higher percentage of poor families) having managers with favorable opinion on family planning reflect the concept of the factor.

Factor F_{10} has the following variables showing great stability till the last rotation:

Factor loadings	Number of the variable	Description of the variable	Higher scores indicate	
6689	72	Annual growth rate of membership	higher	
6530	73	Coverage ratio of the village by membership in 1967-68	higher	
 8964	74	Rate of increase in the coverage ratio (annual)	higher	
+.5012	84	Experience of unsuccessful events in the village	less	
+.4377	62*	Members perceive the weekly cooperative meeting as the forum for discussing im- proved methods of agri- culture and other issues of mutual interest	no	
+.3942	64 *	Age of the manager	higher	
+.4906	23**	Modal size of landholdings per household in the village	larger	
+.4111	60**	Interest developed among the members to build capi- tal through small savings and buying of shares of the cooperative	no	
*These variables have the highest loadings, but less than .50.				
<pre>##These variables have the second highest load- ings, having the highest with some other factor. The loadings are also less than .50.</pre>				

These variables describe the direction of the factor as lower annual growth rate of membership, lower coverage ratio of the village by cooperative membership in 1967-68, lower annual rate of increase in the coverage ratio, less experience of unsuccessful events in the village, less recognition by the members that weekly meeting is an effective forum to discuss improved methods of agriculture and other issues of mutual interest, and higher age of the manager. The last two variables, which have the second highest loadings with the factor (less than .50) add to the direction of the factor--larger modal size of land-holdings in the village, and less interest among the members in building capital through savings and buying of shares of the cooperative. This factor represents the stunted growth of the cooperative due to a lack of initiative and vigor. It is interesting to note that older managers, larger modal size of land-holdings, lack of appreciation of the members to understand the significance of weekly meetings and building capital through small savings and buying of shares contribute to the stunted growth of the cooperatives.

Factor F_{11} is approximated by the following variables:

Factor loadings	Number of the variable	Description of the variable	Higher scores indicate
+.6328	44	Percentage of cooperative members with no schooling	higher
6164	46	Percentage of members with education in the range class I - class III	higher
5944	65	Education of the manager	more
6989	87	Opinion about the women's program of the PARD (by manager)	unfavor- able
+.5080	22	Percentage of families having more than 6-acre of land	higher
4742	52 [*]	Total number of trainees attending various courses	higher
+.4178	38**	Whether women in the village encouraged for higher education	no

*This variable has the highest loading with the factor, but less than .50.

**This variable has the second highest loading, having the highest loading with another factor. The loading is also less than .50.

These variables indicate that the following variables--higher percentage of cooperative members with no schooling, lower percentage of members with education in the range "class I - class III," less education of the manager, favorable opinion about the women's program by the manager (which may not be the same held by the villagers but the assumption is that it may reflect the group opinion), higher percentage of families having more than 6-acre of land--all go together. This factor indicates freedom from cultural restraints or inhibition among the uneducated class in a village with high percentage of rich families. This means an unsophisticated and uneducated people (even a slight education in the range of "class I to class III" changes them) in the presence of a sizeable proportion of rich families in the village form a group with a less educated manager who has a favorable opinion about the women's program. Assuming that the manager's opinion may be influenced by the group opinion it may be inferred that this group is also less restrained culturally and accepts women's program favorably, though others in the village might have cultural inhibitions against accepting it.

Factor F_{12} may be explained by the following variables:

Factor loadings	Number of the variable	Description of the variable	Higher scores indicate
7349	50	Whether the cooperative has given rise to a new power- structure	no
+.3925	73*	Coverage ratio of the village by membership (in 1967-68)	higher
	factor (he second highest loading with less than .50), having the hig for another factor.	the nest

The variable 50 is the only clean variable having the acceptable highest loading with the factor. But

this is definitely a new dimension related to the powerstructure in the village. In future factor analysis, more densities of variables are needed in this dimension. However if the variable 73 which has the second highest loading with the factor is added, a better meaning of this factor emerges. This factor may be interpreted by the constellation as meaning that the cooperative has given rise to a new power-structure and the coverage ratio of the village by membership in 1967-68 is larger. This means that the new power-structure to be effective should have a larger coverage ratio of the village. The power-structure is concerned as an all-village affair. However, it is admitted that the description of the factor to be more reliable needs at least more than one variable.

Factor $F_{1,2}$ includes the following variables:

Factor loadings	Number of the variable	Description of the variable	Higher scores indicate
+.5417	56	Members' efforts to save money	less
+.6318	61	Interest developed in the individual members through the cooperative work to learn and practice improved methods of agriculture	less
4555	90 [*]	Length of the membership period of the present manager in the cooperative	less

Factor loadings	Number of the variable	Description of the variable	Higher scores indicate
4415	86**	Number of various training courses attended in total by the members of the cooperative	greater
	this fac	iable has the highest loading tor and is also comparatively loading is less than .50.	

**It has also the highest loading for the factor, but it is not so clean, and the loading is also less than .50.

These variables indicate the direction of the factor as less effort of members to save money, less interest developed in the individual members through the cooperative work to learn and practice improved methods of agriculture, greater length of membership period of the present manager and fewer training courses attended in total by the members of the cooperative. So this factor represents continued inefficiency and lack of capacity to benefit from the system. The manager continues in spite of inefficiency, indicating a sort of traditional attachment.

Findings of the Factor Analysis

The main purpose of the factor analysis in this particular case was to gain insight about the functional entities which might be influencing the development process of the village cooperatives. The "empirical" constructs, thus discovered though tentative in nature, will greatly help in formulating well-developed meaningful hypotheses and appropriate experimental designs in later efforts.

Thirteen factors have been discovered and named tentatively as a first approximation. They are as follows:

F ₁ :	Probation:	Socio-psychological prepara- tion for the entry in the program.
F ₂ :	Desperate Myopia:	Desperate with individual poverty resulting in atomistic behavior and lack of group action.
F ₃ :	State of Formal Education:	Extent of functional and primary education of the group.
F ₄ :	Cohesion in Enlightened groups: (corporate monopoly)	A top elite (minority) financially solvent and educationally advanced taking interest in cooperative pro- grams and forming a closed cohesive group.
F5:	Basic Weakness in Capital Formation:	Lack of capacity or lack of desire to build capital
F ₆ :	Urbanization:	Loose community, liberal education for women and lack of interest in agriculture and cooperative industries.
F7:	Organizational Health:	Discipline and strictness in the leadership, high commit- ment in the group, a strong desire to learn new knowledge, and effective organization.

- F₈ : Lack of Lack of discipline, lack of Patience for patience to wait for a future gain and less drive. Delayed Gratification (irrelevancy of purpose): F_q: Urgency of Lower percentage of rich Birth-control: families in the village, and more favorable the manager's opinion toward family planning. F₁₀: Lack of Lack of appreciation of the Initiative: cooperative meeting as a forum to discuss problems of mutual interest, and lack of appreciation for savings and share purchase by the members having higher modal size of landholding in the village and consequent stagnation in the size of the membership. F₁₁: Freedom from Fewer inhibitions from cultural Cultural bonds, and liberal to women's Restraints: participation in economic pursuits. F12: New Power-Greater acceptance of the structure cooperative as indicated by (Institution the coverage ratio and building): rise of effective power-
- F₁₃: Inefficiency Inefficiency by the manager and Traditional Attachment (traditionalism):

structure.

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They are, by no means, considered as accurate descriptions of the genuine underlying factors. It is neither possible in the first attempt to identify all the factors even when there are hundreds of cases. (The present analysis is based on 26 cases only.) The author admits difficulty in interpreting at least three of the factors-- F_6 , F_8 , and F_{13} . It was also mentioned that the densities of variables in these and other areas should be increased in future analysis to reveal the factors in-volved more in those fields.

The factor analysis, however, reveals some very interesting phenomena which call for further exploration. Understanding these phenomena with their far-reaching implications may lead to modification of old and introduction of new strategies.

The factor F₃ refers to the state of formal education in the village cooperatives. This seems to form a constellation which does not include the type of education pervasive in the whole Comilla program. The PARD publications refer to this type of education as "extension education," which includes member-education, technical knowledge and skills relevant to day-to-day activities of the members, general awareness of group approach, and skills for problem-solving and decision-making.

The purpose and functions of these two types of education should be fully explored. This may provide rich dividends in the field of educational planning for social change. Generally both these types of education are referred to in the current literature as investment in human resources, or as building of human infrastructure. The current analysis indicates that though both the types of education are investment in human

resources, they are likely to produce different effects at different stages of maturity. The contents of education determined by the cultural environments may also have varying implications on the development process. Schultz has also mentioned that though some growth is not dependent on additional schooling, some others do depend on it.¹

The three factors F_4 , F_8 , and F_{12} when considered side by side give very interesting insights on certain aspects. With the smaller size of the cooperative, the cohesiveness and sense of identification of the group is greater. This may ultimately lead to a corporate monopoly with a higher number of matriculates (secondary final) in the village (Ref. F_{μ}). With the larger size of the cooperative, a new power-structure emerges in the village with a dynamic political force (Ref. F_{12}). But with the larger size of the village (in terms of households), and less interest of the cooperative members in the PARD's "extension education," there is less discipline and loyalty among them (Ref. F_{g}). These factors bring out the various implications of the size of the cooperative and the village with respect to discipline, cohesion and identification, unity of purpose, and power. Large

¹Theodore W. Schultz, <u>Transforming Traditional</u> <u>Agriculture</u> (New Haven, Connecticut: Yale University Press, 1964), pp. 187-190.

size cooperatives may give rise to new power-structures and enhance the process of development. They may as well indicate a lack of relevancy of purpose and so lack of discipline and loyalty depending on some other characteristics being present or absent. In the same way the cohesive enlightened group may form the new entrepreneur class for developing agriculture with economic force and education as their backing. They may also become a new class of "money-lenders," consolidating their position at a higher level for greater exploitation of their neighbors. For their own benefit, they may prefer that the on-going process come to a stop and force it to a static position. These observations in the context of the comments made on the KTCCA program on its business emphasis (page 180) assume special signifi-The business emphasis may lead to a situation of cance. oligarchy and profit-making by a few, unless the educational process reaches the masses as before and keeps their knowledge up to date and commitment high. There always remains a danger for the modernizing forces to regress and exploit the weaker neighbors, instead of exploiting the natural and technological resources, if the horizon of education is not kept apace with the technological advancement.

This again raises some questions which should be answered before any strategies may be formulated. Should

the system encourage the so-called entrepreneur class to develop agriculture rapidly and on a large scale, making them an irresistible economic force and withdraw the surplus people from agriculture in a planned manner for employment in newly set-up agro-industries? Or, should the system encourage all people with no preference to anybody and educate them to arouse the "inner self" of the people leading to a moral movement? Then again, if the so-called entrepreneur class turns out to be a new privileged class but not interested in developing agriculture, what strategies might prevent them from becoming such?

The factors F_6 and F_{11} jointly throw light on some aspects of the women's program and their education. Factor F_6 has been identified as urbanization factor with characteristics, loose community, liberal attitude toward education of women, and lack of interest in agriculture (and cooperative industries). Factor F_{11} identified as "freedom from cultural restraints" factor represents less inhibition from cultural bonds, liberal to women's participation in economic pursuits, higher percentage of cooperative members with no schooling, less education of manager and higher percentage of rich families in the village. Here again women's education and women's participation in economic pursuits are widely separated, and fall in two different constellations. Liberal

attitudes toward women's education constitute an important part of the urbanization factor which is characterized by its lack of interest in agriculture. Whereas opinion about the women's program by the manager (if assumed to be reflective of the group opinion and relevant to the cultural situation) is positive, when the manager himself is less educated and belongs to a cooperative having higher percentage of members with no schooling and higher percentage of rich families in the village. The women's program which is characterized by its economic emphasis is preferred by the uneducated class which might be considered as less inhibited by cultural bonds. The presence of higher percentage of rich families within those villages may mean that the uneducated class became free from prevailing cultural values on women's emancipation by their women's existing employment opportunities within the rich families of the village. This may also mean that the uneducated class might have accepted the values of the richer class, if it is in favor of women's emancipation, living in close contact of dependency. This strongly suggests that the women's program has got a stigma attached to it which keeps the middle class of the village away from it. If it is found to be true, then strategies may be developed in the women's program for the middle class women to join the program. It is also interesting to observe that the larger number of

women members in the cooperative is indicative of the group's seriousness in increasing its capital. All these hypotheses may be separately tested.

Manager's opinion about the family planning program (if assumed to be reflective of the group opinion and relevant to the cultural situation) is positive when the particular village has lower percentage of families with high-level income. It might be also very rewarding to investigate why the positive opinion of the manager on the family planning program did not form a constellation with larger percentages of poor families in the village. This may lead to the discovery of other constraints with regard to family planning on the opinion of the members of the villages with higher percentages of poor families.

Summary

The factor analysis is a great help in the stage of exploration. It helps enormously in reducing the size of data revealing the underlying consistencies in the mass of data. These underlying consistencies based on a huge correlation matrix are called factors, which are the real entities in the background of the variables influencing the situation from which the data have been collected. The method, the rationale of its use in this research and its limitations in this particular context have been discussed in the first section of this chapter.

Thirteen factors have been identified which are relevant to the development of the Comilla Cooperative Program so far as the data can reveal. All the factors have been described from a careful look at the different variables forming the particular consistency. Basing on one analysis, the factors cannot be labelled accurately. This analysis will greatly help to identify some relevant dimensions for greater attention in future research. Some of the variables may be excluded which are just mathematical artifacts of some other variables and the densities of variables in certain other dimensions may be increased. A few new variables may also be added. This will bring the factors in better focus, and may help to discover new variables which are fully saturated with the elements of the factors.

The factor analysis, however, reveals some very interesting phenomena which call for further exploration. Understanding these phenomena with their far-reaching implications may lead to modification of old and introduction of new strategies.

CHAPTER IX

SUMMARY, DISCUSSION AND CONCLUSION

Purpose of the Study

In most of the studies available on planned social change, there seems to be a polarization of interest, either to macro or to micro-setting. Some brilliant models of planned social change drawn from broad generalizations in the macro level are available. There are also numerous successful projects implemented in community or micro levels and studies more or less in an isolated manner without sufficient attention to the total system, the politico-administrative structure. As a result, science is weak in the intermediary range, in the process of optimum and efficient interlocking of the two levels.

The PARD has evolved a role for itself as an intermediary between the government and the people, and this role has put the PARD into a unique position to link the macro-level planning with the micro-level planning. But, of course, its approach is mostly from micro to macro and the strategies evolved should be understood in the context of a traditional society in transition. This transition from a traditional background to a state of

planned change may be considered as a particular typology in the development process. The other typologies of the development process may be found in various combinations of the backgrounds of societal base (traditional, feudal, or tribal) and development orientations of the society (social, economic, or political). The jurisdiction of the micro-system has been operationally defined to extend up to the thana level, the area of the PARD's original social laboratory. The system beyond that up to the national level is defined as the macro-system.

The primary purpose of this study is to understand the Comilla program as far as possible with a historical perspective, so that one may discern some of its intricate but pervasive underlying principles at work. So in specific terms the statement of the problem for this thesis is to study:

- The socio-economic preconditions of the local communities involved in the Comilla program.
- 2. The process of social change as understood from the study of the various strategies evolved in the system in the particular context of the socio-economic preconditions of the communities.
- 3. The role of the PARD in the process of building institutions in the micro-system and their integration in the politico-administrative set-up involving the macro-system.

4. The important factors of development in the local Comilla communities and the shaping of the future trend as revealed by the data and analysis.

Theoretical Background

The trend of research and publications in development planning and social change indicates a clear change of emphasis from pure short-run economic models to interdisciplinary models which include long-term sociopsychological factors bearing on the basic personality traits of the nation. Then again the emphasis shifted to models of planning strategy which is interdisciplinary and assumes that the processes involved in development efforts may be hastened. With the worldwide wave of rising expectations, the newly born developing countries are getting impatient to break their chains of poverty outright. The planned strategy asserts that the appropriate attitudes and, more importantly, the appropriate behavior will be forthcoming, once opportunities and incentives are provided. Value changes may follow, not precede behavioral changes, and may therefore not be a pre-requisite for modern economic or political behavior. This notion is now being supported by the proponents of cognitive dissonance theory, which hypothesizes that when there is an inconsistency between the behavior of men and their values, it is often the

values that change. So strategies may be developed to facilitate development, not by a frontal attack upon values, but by a frontal attack upon institutions and structures that reduce incentives and opportunities and by supporting those institutions and structures which increase them.

The development process is considered essentially an outcome of a complexity of factors. One factor may be highly effective within the complexity of the whole system, and completely ineffective if it were isolated. Therefore the complexity has to be considered precisely as a whole. The essence of a development model consists in bringing all really important and determining factors together in a consistent and logical framework, so that their mutual relations and their aggregate impact on development become manifest.

Almost all the models available, though varying to a large extent because of broad generalizations based on professional ethnocentrism, have positively contributed in bringing out some of the most important factors of development. It is seen that the socio-psychological preconditions of the society in question form an important set of determinants of development and its process. It is seen that a class of entrepreneurs whether in business, industry, politics, or administration, is another important factor. The incentive systems of the society and its institutions constitute other factors of development. These also include market forces and governmental control and support. These are some of the important factors for consideration in making a macro-plan for social change. The success of these macroplans, however, largely depends on the efficiency and strength of their inner mechanism to shape the development process from the micro-level up in a predictable pattern. For optimum speed and growth, this process of shaping should be both ways--up and down.

But in practice, the basic weakness arises in the interlocking of the micro and macro levels--the processes by which the micro projects itself in the macro and the macro supports the micro; how the national goals and objectives are transmitted to the people and how the people's needs, desires and local efforts are integrated not only in the plans but also in the politicoadministrative structure. The Comilla program provides a good case study on the linking process of the two levels. It is hoped that the accumulation of analyses of such processes based on case studies of different typologies, will bridge the long-felt gaps in theorybuilding by refining the middle range theories.

Methodology

Thirty-five village cooperatives from a total of 406 (including disbanded ones) were selected on a

purposive stratified random sampling basis for statistical investigations. The stratification was done on the following dimensions: (1) age of the cooperative; (2) membership size; (3) total savings; (4) total shares purchased; (5) total loan received; (6) total loan repaid; (7) loan outstanding; and (8) grading of the cooperative by the inspectors. Each of these dimensions was divided into three categories, depending on a compromise of: (1) the range and natural distribution in the particular dimension; and (2) balanced proportion for a meaningful comparison.

Three questionnaires were used--one for the cooperative, one for the manager of the cooperative, and one for the members of the cooperative. The first questionnaire was really a set of eight questionnaires--one of them was filled in from the office records, five of them were filled in by responses in group concensus (the group consisting of the manager, member no. 1, member no. 2, and at least three other members), and the last two of the set were filled in separately by individual interviews of the manager, member no. 1, and member no. 2 of each individual cooperative. Member no. 1 and member no. 2 were selected from the recommendations of the manager as being a good and a bad member, while the members themselves did not know the criterion of their selection. The second questionnaire was exclusively

meant for the manager, while the third questionnaire was used separately both for member no. 1 and member no. 2 of each cooperative.

The inventories of the significant events in chronological order of the following were prepared:

- I. Cooperatives
 - 1. Four village cooperatives
- II. Other Organizations
 - 1. PARD
 - 2. KTCCA
 - 3. Thana council

III. Projects

- 1. Agriculture extension
- 2. Mechanization of agriculture
- 3. Storage, processing, and marketing
- 4. Education
- 5. Family planning
- 6. Home development and women's education

Case studies were prepared on each item on the above list except: (1) mechanization of agriculture; and (2) storage, processing, and marketing. Lastly a factor analysis was conducted with 90 variables out of almost 500 collected on the village cooperatives by statistical investigations. Thirteen factors have been identified from the data as having consistent influence on the village cooperatives.

Strategies Evolved in the Comilla Program

The Comilla program has grown both in its internal organizational structures and functions and external

relationships with other institutions, including government and foreign technical assistance programs. The PARD as an intermediary between the people and the government exerts change forces at each level of participation. It further provides the link between the micro and macro levels by successively shaping the change objectives and realization of change goals. The strategies evolved in making the program effective are discussed as follows.

Socio-psychological Strategy

<u>Group approach</u>.--The most important pattern that emerges from studying the program is its avowed reliance on a group approach. When the most appropriate group approach was discovered, it was found not only to carry on the particular work, but also to create a sociopsychological environment for further work and cooperation.

Organizer system.--The organizer system completely replaced the village-AID workers, or other government employees from each village. A new type of village leadership was developed based on purely functional roles. The training of local leadership based on functional roles increased their efficiency, made them more loyal as well as useful to the local communities. The organizer system very quietly, in course of time, transformed the traditional leadership role to a dozen functional leadership roles stirring the activity front of the communities.

<u>Group meeting</u>.--The weekly general meetings of the cooperative members, dispel mutual distrust and pluralistic ignorance and make it possible for individuals to test the rumors, insights, and plans for action.

The group approach as applied in the Comilla program seems to:

- build up psychological strength and a feeling of togetherness and security;
- discipline the individual for a group cause through a notion of rights and obligations;
- facilitate pooling of resources, efforts, and talents;
- 4. provide a better chance of success, which may be further built on to develop a spirit of self-help, mutual-help, and a sense of group power.

Socio-political Strategy

Local control, planning and leadership. -- The technique of delegating authority for local control and planning in the Comilla program seems to:

> develop responsibility and constructive attitudes;

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- increase initiative to acquire more knowledge and insight for better control and planning;
- make planning more realistic to local situations;
- 4. increase the amount of participation at grass-roots;
- 5. provide an effective combination of responsibility and authority for efficient management;
- provide training in decision-making,
 conflict-resolution, and resource development.

Avoidance of head-on clashes and development of

<u>mutual interest</u>.--It is of utmost necessity to avoid any head-on clash of interest, because any trouble in the beginning will be an obstacle against introducing anything new later. Considerable emphasis is placed on the importance of each success in problem-solving, and the problems selected are often those which offer a visible and non-controversial target.

Socio-economic Strategy

Most of the original projects were simple and were intended to increase income directly either by adding a gain, or reducing a loss for the participating groups. The more acceptable projects were those which could distribute profits equally to all participants. Patience for delayed gratification was almost absent. The entire program has been successively shaped through a very subtle and carefully planned incentive system. However, side by side there is a constant effort to impress upon the client system that a period of hard work, higher production, greater solvency, and more stable institutions are necessary before any social welfare could be organized--a "pain perspective" that one has to endure for getting something desirable.

Educational Strategy

Multiplying the channels of communication.--The multiple channel of information through the local voluntary agents, the organizer system, is considered by the villagers to be free of vested interests and so more reliable. At any moment the system can reach the masses through many agents.

The system has been found to be very efficient in diffusion and propagation of ideas through interpersonal means where mass media is not likely to be so efficient because of illiteracy and cultural barriers.

Continuity of efforts and linkage.--In formulations of change objectives the PARD reveals an implicit assumption that movement toward the final change goal is a sequential process which requires a number of subgoals. The village cooperatives continued with various types of projects every time making those projects the leverage points for those particular moments to reach the change goal through a sequence of projects. The skill learned at every point in problem-solving enriches the capacity to solve still higher level problems in the sequence. The continuity of efforts builds up a psychological trust of sincerity of purpose among the various sub-parts of the client system as well as between the change agent and the client system.

Realistic curriculum.--The PARD has introduced a method of realistic curriculum building for its educational purposes, the spirit of which may be described by the statement, "our text is the social laboratory of the Comilla thana." The training is given to the cooperative members on a continuous basis, one day a week or a fortnight, or a short period each month, continued throughout the year. The continuity of training builds up a psychological trust among the farmers that they would not be abandoned in the near future and makes it possible to educate them gradually whether semi-literate or illiterate.

Sociological Strategy

The Comilla program has concerned itself from the beginning with redefining the roles of some of the vital partners in the system. It was very difficult to change these set roles in the beginning. But with persistent efforts and a carefully laid educational program in

collaborative projects where the various partners were involved, a breakthrough has been attempted. It is vitally necessary that the roles to be played by the various partners in such situations be compatible with the general policy of the whole system. A serious and pervasive effort is seen to redefine the roles of the (1) villagers, (2) officers, (3) technical and research experts, (4) training institutes, and (5) government; all of whom constitute the overall team for developmental planning and execution.

The redefinition of roles of the various partners in the system has been conceived to achieve the following:

- to arouse initiative and responsibility among the people to shape their immediate environment;
- 2. to introduce the dual role of an executive and a teacher among the officers dealing with the people and convince them that something good is possible, if they honestly try;
- 3. to develop a spirit of partnership between the people and the government.

Scientific Strategy

It was necessary for the PARD to be experimental in its approach. It assumed no dogmatic notion about solutions of rural problems. This idea forced it to undertake research with the village people on their problems. The extension programs with the villagers, action research in the field, and pilot projects in collaboration with government departments are the outcome of this principle to explore along with the people and the government departments the practical solutions of the problems. It emphasized more attention in the field of social sciences--administration and management, social engineering, group dynamics, and human relations. This particular role of the PARD was also welcomed by the technical departments and a mutual dependence grew between the PARD and departmental programs out of their complementary specialties.

Institution-Building and Integration in the System

The whole process of institution-building and integration in the system has been discussed in two steps. The first step is the development of functions and its consequent impact in developing appropriate structures needed for efficient progression of development within the micro-structure. The second step consists in developing the PARD role in integrating these structures in the politico-administrative system projecting itself in the macro-system.

Functions and Structures Developed in the Micro-system

The special merit of any of the projects in the Comilla program is that it identifies the problems in real situations and prescribes some solution on an <u>ad hoc</u> basis depending on the existing resources and tries to reinforce it from all possible directions. If it is found not to work even then, a new <u>ad hoc</u> solution is again tried with all other forces gradually shaped to reinforce it.

But if some processes are found not to reinforce the potential successful solution, a "survival approach" is taken for the time being. The friction and anomalies are made known with scientific objectivity through research monographs, reports, and conferences without directly attacking those forces. It has been possible this way to induce the proponent of the particular force to take a rational view and change it so as to reinforce the right situation and become a participant in the development process.

The projects developed at various times really belong to a continuous development of one underlying force, namely, the improvement of the condition in the rural sector. A project or a set of projects was formulated on a time scale, when the conditions in the environmental structure yielded to make place for it. This makes another condition incumbent on the project or the set of projects--that it must have acquired by that time the optimum functionality in the existing system.

It has been found that most projects for rural development need an interdepartmental approach for effective implementation. While the presence of the PARD is the first step in getting the departments involved, it need not be nor is it desirable for it to be a permanent feature. In the absence of the institutional means for coordination and cooperation, the PARD plays the missing role, but for stabilizing the process and intergrating it in the system, some built-in coordination system is evolved.

The educative process at work among the various parties involved in the program-building helps in constructing further action programs which are gradually reinforced through an integrating process of sociopsychological maturity of the groups and the evolution of the politico-administrative structure to hold them effectively.

A schematic presentation of the program-building process has been introduced.

Integration of these Institutions in the Politico-Administrative System

The establishment of the PARD, with its anticipated role in the field of rural development administration was itself a big step taken by the government toward modernizing public administration. The composition of the board of governors for the PARD symbolizes the interdepartmental approach to problems of rural development and the urgency of their solution.

The PARD is consciously moving toward greater involvement with the provincial departments, the planning bodies, and the highest administrative leaders of the government to formulate long range policies, and administrative plans so that new policies and plans reinforce the system developed in the micro-setting.

The officials belonging to civil services and nation-building departments study the PARD pilot projects as models of program-planning and administration while in training at the PARD. These training programs greatly orient the officials to appreciate the modern effective methods of administration.

The PARD constantly evaluates its own pilot projects and also those government programs which are accepted on the basis of the PARD pilot projects for large-scale implementation. These evaluation reports greatly help extension and modification of the programs as well as development of new plans and programs.

The PARD is constantly engaged in organizing conferences of high-level officials, workshops, and seminars on controversial scientific issues where research scholars and experts exchange their views. These efforts greatly help to refocus attention on vital issues and build up a professional community interest.

The process of institution-building is forced by an effective program-building. The net institutionbuilding is a more stable process and is effected by the

total pull of the forces of the complementarities. A schematic presentation of the institution-building has been introduced to simplify the description and understanding of the abstract process of institution-building.

Findings of the Factor Analysis

A factor analysis has been conducted with 90 variables having <u>a priori</u> relevance to the development processes of the village cooperatives. The purpose of using the result of the factor analysis is to have more insight in explaining some of the facts already observed in identifying the various evolving strategies in Chapter VI, especially related to the village cooperatives. It is also expected that the knowledge of these various factors will help to include more relevant dimensions in future research. However, the present analysis of the underlying factors reveals some very interesting phenomena and trends, which may call for some modifications in some of the old strategies and also introduction of some other new strategies.

Thirteen factors have been identified as a first approximation, which may be further investigated. They are as follows:

> Factor F_1 : Probation Factor F_2 : Desperate Myopia Factor F_3 : State of Formal Education

Factor F_{l_1} : Cohesion in Enlightened Groups (Corporate Monopoly) Factor F_5 : Basic Weakness in Capital Formation Factor F_6 : Urbanization Factor F₇ : Organizational Health Factor F_8 : Lack of Patience for Delayed Gratification (also Irrelevancy of Purpose) Factor F_{Q} : Urgency of Birth-Control Factor F_{10} : Lack of Initiative Factor F₁₁: Freedom from Cultural Restraints Factor F₁₂: New Power-Structure (Institution-Building) Factor F₁₃: Inefficiency and Traditional Attachment (Traditionalism)

The important observations made from a close scrutiny of the factors are given below. The state of formal education (F_3) in the village cooperatives seems to form a constellation which does not include extension education although it is so pervasive in the whole program. This calls for exploration into the purposes and functions of these two types of education which may provide rich dividends in the field of educational planning for social change.

The three factors F_4 , F_8 , and F_{12} when considered side by side bring out the various implications of the size of the cooperative and the village with respect to discipline, cohesion and identification, unity of purpose and power, which may be responsible for introducing new strategies or even for raising new philosophical questions.

The Factors F_6 and F_{11} jointly throw light on some aspects of the women's program and education. Here again women's education and women's participation in economic pursuits are widely separated and fall in two different constellations.

The factor Urgency of Birth-Control (F_9) forms a constellation with positive opinion of the manager on the family planning program and lower percentage of families with high level income, but not with higher percentage of poor families. Exploration of the reasons for this may lead to a possible discovery of some interesting constraints on the opinions of the members of poor families with regard to family planning, (one of which may be the feeling of insecurity with fewer children because of high mortality rate or another, better scope of earning by the children).

Some Comments on the New Trends of the Cooperative Program

"No-new-projects" concept of the villagers discussed earlier (page 131) may be taken up. This may mean any one of the following: (1) lack of education to understand the new projects as distinct from older projects, (2) some older projects have assumed newer dimensions which actually need a period of consolidation or trial,

and learning of special skills before steps in new directions may be taken, and (3) the program is not generating newer projects for whatever reasons there may be. Finding of clear answers for this will greatly help in formulating new programs.

Land-through-loan program discussed earlier (page 134) may be further analyzed. Formerly loans were given by the central association to release the members' mortgaged land. With the introduction of improved methods this loan program was extended to provide capital to the members to rent the land of others for improved cultivation. Recently this loan policy has been further extended to provide capital to the cooperative members to buy land from others. The policy of loan giving to members in this particular aspect shifted from that of earlier periods. At first loan money was never allowed to be used for buying land from others, and the utilization of loan was very carefully scrutinized by the KTCCA, through the device of a jointly drawn production plan. The loan disbursement policy, however, has shifted from the production plan device to an upper-ceiling limit The upper-ceiling of loans payable to a group device. is determined by its collateral and past transactions behavior.¹ The utilization of loans depends largely now

¹The upper-ceiling of loans payable to a group may be fixed at a maximum of five times its collateral provided all other required conditions are satisfied.

on the plans of the cooperative groups themselves without much control from the central association. The central association remains satisfied with timely repayment of the loan dues. The full implication of this shift from the production plan device to upper-ceiling limit device is yet to be analyzed. Probably, this shift may be related with the business emphasis of the KTCCA. This may be also related with the growth of oligarchy or corporate monopoly in the village cooperatives in certain cases. The land-through-loan program is also growing in size. In the year 1967-68, out of a total amount of Rs. 4,244,477.00 issued as loans to agriculture cooperatives, Rs. 1,480,455.00 (i.e. 35%) was issued under the land-through-loan program.¹ This program includes: (1) land lease loan, (2) land release loan, and (3) land purchase loan. The raising of this issue is intended to indicate that it is a new trend and its implication should be carefully studied.

The introduction of high-yielding rice varieties, improved potato seeds, and other vegetables along with the introduction of power irrigation system, need high investment and better skill and management in agriculture. This may tend to develop a new class of farmers and oust others who were marginal. The price of land

¹Badar Uddin Ahmed and Rezaul Karim, <u>The New</u> <u>Rural Cooperative System for Comilla Thana</u>, <u>Eighth</u> Annual Report, PARD. Comilla, East Pakistan, April, 1969, Table 23, p. 28.

would go up and would be transferred to the entrepreneur class gradually, who would put the land under intensive cultivation. This will create two problems, one with agricultural education and the other with gradual transfer of surplus people to other occupations. The former relates to the problems of insects and insecticides with all the year round greenery and of meeting the shortage of pasture land and green manures. The latter problem relates to effective utilization of the available power in the village to develop various agro-industrial units to employ the displaced persons. Till now, the utilization of power in the cooperative village has been very low. Fresh thinking has to be done in setting up the various industrial units. The central association (KTCCA) has already set up a new federation, Comilla Industrial Cooperatives Federation (CICF). A new kind of program planning has to be taken up in the field of agro-industry involving the villages more and more. A trend of increasing interest is also noticed both among the agricultural and non-agricultural cooperatives to get involved in business and industries.

PARD's New Function and Role

It seems clear that the scope of the PARD's action research will extend beyond its thana laboratory with the acceptance of the District Integrated Rural Development program for implementation in the whole province.

The PARD should continue the evaluation research of the various pilot projects, even though they are now beyond the thana level.

The PARD should now evaluate more seriously its various training programs. The training needs of the various groups, and the effective methods of training based on constant evaluation and long-range effect both on the trainees and their work program should be carefully analyzed.

The PARD should assume more and more the responsibilities of research and extension services for rural development. The methods appropriate to this task as a rule require, to approach an optimum size, a substantial number of competent scientists and assistants and an array of expensive facilities for experimental work. No private profit organization can take up this function because such firms cannot capture all of the products of value that a scientific establishment produces.¹ For an agricultural extension service to be efficient, it cannot restrict its activities to the promotion of one or even a few new agricultural factors. It must, for example, also bring to farm people information pertaining to other aspects of production and to consumption and values and tastes that affect their standard of living.

¹Richard R. Nelson, "The Simple Economics of Basic Scientific Research," <u>Journal of Political Economy</u>, 67, (June, 1959), pp. 297-306.

Only an institution interested in the comprehensive development of the communities can capture most of the returns from such a program.¹ Once this non-profit governmental institution is set up for research and extension, other private and public institutions may join with it in its distribution program.

Conclusions

A step has been taken in analyzing the Comilla program in its total perspective in an interdisciplinary approach.

The various strategies evolved and the process of institution building in the development system have been analyzed with a theoretical frame.

The role of the PARD in the micro-macro interlocking process of the development planning has been clearly brought out and simple schematic presentations of these processes are provided.

The present trends of the cooperative program in its micro-setting have been analyzed. In the light of these trends, the future implications on the strategies and program-planning have been discussed. The PARD's new functions and role were also indicated.

¹Theodore W. Schultz, <u>Transforming Traditional</u> <u>Agriculture</u> (New Haven: Yale University Press, 1964), pp. 159-160.

Needed Research

The present research on the Comilla development process represents the beginning of a series of research programs in this field.

The data of this research analyzed by the R-technique of factor analysis involving correlations between variables over the cooperatives need a transposed factor technique, known as Q-technique to discover the cooperative types from the constancy of patterns over the variables. These two techniques taken together would probably throw interesting insights on various underlying factors of contents and groupings in the entire developmental processes of the Comilla cooperatives.

The factors identified by the present analysis should be further approximated by a new factor analysis by rearranging variables from the experience of the present analysis and collecting new data.

Many research hypotheses have been generated in this study which should be tested and their implications in program-building analyzed. The most important questions to be explored are: What are the incentive systems and how do they influence the development process? Who are the entrepreneurs for agricultural development? How can they best be encouraged? What are the important factors that help or retard the development processes of the village cooperatives? What are the

implications of various socio-psychological characteristics on the development of the village cooperatives? What are the impacts of various types of education on the development process of the village cooperatives? What is the impact of religion on development? What strategies should be developed to popularize the women's program, the family planning program and others?

More penetrating research is needed on mechanization of agriculture and agricultural production.

However, the most useful research would emerge when some of the important factors of development are identified.

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APPENDIX A

A GUIDELINE FOR CASE-STUDIES

APPENDIX A

A GUIDELINE FOR CASE-STUDIES

Introduction

The educational influence of the PARD is best propagated through its projects. These projects need support of various organizations at different levels. New institutions are needed to reinforce, supplement or replace old institutions or values according to their relevance to the developing process. The developing process shapes itself under the influence of various interests, organizations, and institutions. These sources may have conflicting forces, reinforcing forces and sometimes deflecting forces to exert upon a particular program. So a particular program takes its gradual shape in a course dictated by the resultant force at a particular point and time in a systemic way. A clear analogy may be drawn to describe the situation from the field of dynamic equilibrium of forces with multiple foci located at various points in the field. The various foci in such cases may be identified as stronghold of influences exerted by various organizations, groups, institutions, values, resources, etc.

A successful project makes a balance of these forces in its field of action and is incorporated in the system. A good program may not be successful because of its deficiency of adaptation in the existing structure. We are concerned more in this process of adjustment between program and structure. A project may be unsuccessful not because of its inherent quality or content but because of its non-acceptance in the existing structure.

So in the study it will be of interest to see how a program originates, what context is necessary, how it thrives, what problems it solves, what strategies are adopted to introduce the program and then to make it work, how its growth process is regulated, how its growth influences the social and structural environment, and lastly to see the factors that contribute to its being successful or unsuccessful. So a tentative outline may be given as follows.

Tentative Outline

- I. Socio-Economic Pre-conditions:
 - 1. Social and economic systems prevailing at the time of initiation.
 - 2. Realization of the problem and task knowledge.
 - 3. Socio-psychological preparation.

- II. Initiation of the Program and its Planning Strategies:
 - 1. Initiation of the program--parties involved, processes utilized and resources needed.
 - 2. Establishment of organization and streamlining of management procedures.
 - 3. Ensuring people's participation.
- III. Problems of Implementation and Stabilization:
 - 1. Problems of education and skill training.
 - 2. Problems of coordination and adaptation with other agencies at various levels.
 - 3. Evolution of a self-propelling device.
 - IV. Problems of Growth, Expansion and Integration:
 - 1. Facing of new challenges and development of new outlook.
 - 2. Planning of expansion of the program both in scope and function--inter-departmental jealousy and coordination.
 - 3. Integration of the program with the total "system" of development.
 - V. Evaluation and Conclusion:
 - 1. Impact of the program on the people and the "system."
 - 2. Trends in program objectives.
 - 3. Trends in structural development needed to fulfill the objectives of the program.
 - 4. Developmental stages.
 - 5. Strategies and educational processes.

So attention will be focused on the background socio-economic situations, identification of problems,

planning and implementation of program, the course of events with their chronology leading either to success or failure, the organizational development and administrative set-up, departmental cooperation and coordination at various levels, and lastly its integration in the developmental process. The purpose of this effort is to discover the strategies evolved at various stages and the underlying educational processes that build up a gradual process-structure interplay to make a project an integrated part of a development program.

APPENDIX B

LIST I OF VARIABLES

APPENDIX B

LIST I OF VARIABLES

Ninety (90) Variables Used in Factor Analysis

The interpretation of correlations between any two variables of the list depends on the direction of the scales of the variables.

- 1. Date of starting of the cooperative.
- 2. Date of registration of the cooperative with the Central Association.
- 3. Membership size in the year 1967-68.
- 4. Number of members dropped out from the beginning.
- 5. Number of pioneer members dropped out from the cooperative till the end of 1967-68.
- 6. Total cumulative savings by the cooperative in the year 1967-68.
- 7. Average annual savings by the cooperative.
- 8. Cumulative share purchase by the cooperative till the end of 1967-68.
- 9. Average annual share purchase by the cooperative.
- 10. Average annual deposits per member of the cooperative.
- 11. Total capital formation (savings + share) by the cooperative till the end of 1967-68.
- 12. Loan absorption in terms of number of loan-receiving years and the period of existence of the cooperative.

- 13. Total loan received by the cooperative till the end of 1967-68.
- 14. Average annual loan received by the cooperative.
- 15. Number of years loan-offering was withheld.
- 16. Total loan repaid by the cooperative till the end of 1967-68.
- 17. Average annual loan repaid by the cooperative.
- 18. Number of households (single kitchen-units) in the cooperative village.

- 19. Percentage of families (households) with no cultivable land.
- 20. Percentage of families with land from 2 kanis to 5 kanis (2.5 kanis = 1 acre).
- 21. Percentage of families with land from 5 kanis to 10 kanis.
- 22. Percentage of families with more than 15 kanis of land.
- 23. Modal size of land-holdings per household.
- 24. Percentage of families below subsistence level.
- 25. Percentage of families at subsistence level.
- 26. Percentage of families above subsistence level.
- 27. Percentage of families at higher levels (rich).
- 28. Occurrence of social conflicts in the village before the establishment of the cooperative.
- 29. Number of functionally literate persons before the cooperative came into being.
- 30. Number of functionally literate persons in the year 1967-68.
- 31. Percentage increase of functional literates during the period of the cooperative till 1967-68.

- 32. Total persons (M+F) formally schooled up to primary level before the cooperative came into being.
- 33. Percentage increase of persons formally schooled up to primary level during the period of the cooperative.
- 34. Educational points obtained by the village for its total Primary education before the cooperative was started.
- 35. Total increase of educated persons (matriculation level) during the period of the cooperative.
- 36. Educational points obtained by the village (Pry., Matric., and Higher Educ.) before the cooperative was established.
- 37. Educational points obtained by the village (Pry., matric., and higher) in the year 1967-68.
- 38. Whether women encouraged for higher education.
- 39. Experience of organizational work in the village (irrespective of success or failure).
- 40. Trouble faced in setting up the initial organization.
- 41. Modal size of land-holding in the cooperative.
- 42. Percentage of families among the members having income below subsistence level.
- 43. Percentage of families among the members having income above subsistence level.
- 44. Percentage of members with no schooling.
- 45. Percentage of members with ability to read the Quran.
- 46. Percentage of members with education "class I to class III."
- 47. Percentage of members with education "class IV to class V."
- 48. Identification of the members with the cooperative group.

- 49. Whether the traditional leaders are still active (manager's opinion).
- 50. Whether the cooperative has given rise to new powerstructure (manager's opinion).
- 51. Increase of cliques and factions because of the cooperative (manager's opinion).
- 52. Total number of trainees attending various courses.
- 53. Members' attendance in weekly meetings.
- 54. Members' interest in learning improved skills.
- 55. Members' efforts to repay cooperative loans on time.

- 56. Members' efforts to save money.
- 57. Members' loyalty to the cooperative as a whole.
- 58. Reasonable sharing of risks by the members (adventurous but rational).
- 59. Reasonable sharing of profits by the members.
- 60. Interest developed in the individual members through the cooperative work to deposit savings and buy shares of the cooperative.
- 61. Interest developed in the individual members through the cooperative work to learn and practice improved methods of agriculture.
- 62. Member's perception of the weekly cooperative meeting as the forum for discussing improved methods of agriculture and other issues of mutual interest.
- 63. Increased efforts developed among the members a desire to break with illiteracy and to absorb new knowledge and training.
- 64. Age of the manager.
- 65. Education of the manager.
- 66. Whether land was brought under cultivation by any of the three means (share-cropping, renting by cash, and mortgage) by the manager in the year 1967-68.



- 67. Economic position of the manager.
- 68. Turnover of managers.
- 69. Manager's feeling in working with his group.
- 70. Impact of various training courses and conferences on the skill of the manager.
- 71. Manager's satisfaction from the work.
- 72. Annual growth rate of membership of the cooperative.
- 73. Coverage ratio of the village by membership in 1967-68.
- 74. Rate of increase in the coverage ratio (per year).
- 75. Rate of increase of share purchases by the cooperative.
- 76. Rate of increase of capital in the cooperative (average annual rate).
- 77. Proud moments of past achievement remembered by the villagers.
- 78. Events remembered as shameful moments of degradation.
- 79. Villagers' past remembrance about their achievement (from shameful to neutral to proud).
- 80. Gain in educational points of the village (Pry. + Matric. + Higher) during the period of the cooperative.
- 81. Gain in educational points due to female primary education during the period of the cooperative.
- 82. Outlook towards women's education.
- 83. Experience of successful events through organizational procedures in the village.
- 84. Experience of unsuccessful events in the village.
- 85. Presence of women members in the cooperative.
- 86. Number of various training courses attended in total by the members of the cooperative.

- 87. Opinion about the women's program of the Academy (manager's opinion).
- 88. Opinion about the Family Planning program of the Academy (manager's opinion).
- 89. Any experience of the manager inside or outside the village.
- 90. Length of the membership period of the present manager in the cooperative.

APPENDIX C

LIST II OF VARIABLES

APPENDIX C

LIST II OF VARIABLES

The remaining 93 variables (out of 183) which were not used for factor analysis.

- 1. Membership size of the cooperative in the beginning.
- 2. Number of members dropped out during the first-half period of its existence.
- 3. Number of members dropped out during the last-half period of its existence.
- 4. Percentage of dropped out members dropping out during the first-half period of the existence of the cooperative.
- 5. Total capital formation per member of the cooperative till the end of 1967-68.
- 6. Outstanding loan of the cooperative (not necessarily over-due) till the end of 1967-68.
- 7. Number of people (total population) in the cooperative village.
- 8. Total land of the villagers under actual cultivation.
- 9. Average income per acre of land (taking into consideration all types of land) in the village.
- 10. Number of minimum distinct social strata in the village.
- 11. Whether a primary school exists in the village.
- 12. Whether a secondary school exists within a radius of one mile from the village.

341

- 13. Total persons formally schooled up to the primary level in the year 1967-68.
- 14. Educational points obtained by the village for its total female primary education before starting the cooperative.
- 15. Whether women encouraged for Bengali education.
- 16. Percentage of household units having "no cultivable land" (member-families).
- 17. Percentage of household units having land up to 2 kanis of land (member-families).

111

- 18. Percentage of household units having land from 2 kanis to 5 kanis (member-families).
- 19. Percentage of household units having land from 5 kanis to 10 kanis (member-families).
- 20. Percentage of household units having land from 10 kanis to 15 kanis (member-families).
- 21. Percentage of household units having land 15 kanis or more (member-families).
- 22. Percentage of families having income at subsistence level.
- 23. Percentage of families having income at higher level (rich).
- 24. Number of members with no schooling.
- 25. Number of members having education from "class IV to class V."
- 26. Number of members having education from "class XI to class X."
- 27. Number of members having matriculation certificate (high school graduation).
- 28. Percentage of members with education "class VI to class VIII."
- 29. Percentage of members with education "class IX to class X."

- 30. Groups' feeling for resisting external threat and pressure directed towards its disintegration.
- 31. Whether the traditional leaders are still active (opinion of member 1).
- 32. Whether the traditional leaders are still active (opinion of member 2).
- 33. Relationship of the cooperative with the traditional leaders (manager's opinion).
- 34. Relationship of the cooperative with the traditional leaders (opinion of member 1).
- 35. Relationship of the cooperative with the traditional leaders (opinion of member 2).
- 36. Whether the cooperative has given rise to a new power structure (opinion of member 1).
- 37. Whether the cooperative has given rise to a new power structure (opinion of member 2).
- 38. Increase of cliques and factions because of the cooperative (opinion of member 1).
- 39. Increase of cliques and factions because of the cooperative (opinion of member 2).
- 40. Emergence of new leadership because of new roles brought by the cooperative (manager's opinion).
- 41. Emergence of new leadership because of new roles brought by the cooperative (opinion of member 1).
- 42. Emergence of new leadership because of new roles brought by the cooperative (opinion of member 2).
- 43. Members' efforts to increase deposit with the cooperative account.
- 44. Interest developed in the group as a whole through the cooperative work to deposit savings and buy shares of the cooperative.
- 45. Interest developed in the group as a whole through the cooperative work to learn and practice improved methods of agriculture.

- 46. Members' group perception of the weekly cooperative meeting as the forum for discussing improved methods of agriculture and other issues of mutual interest.
- 47. Increased efforts developed among the group as a whole a desire to break with illiteracy and to absorb new knowledge and training.
- 48. No good or bad habit has been developed in the group because of the cooperative work.
- 49. Serious crisis faced any time during the existence of the cooperative.

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- 50. Number of times the cooperative faced the crisis.
- 51. Quantity of land owned by the manager before joining the cooperative.
- 52. Quantity of land owned by the manager in the year 1967-68.
- 53. Quantity of land under cultivation in the year 1967-68.
- 54. Whether land was brought under cultivation by any of the three means (share-cropping, renting by cash, and mortgage deed) before joining the cooperative.
- 55. Whether land was given out by any of the three means (share-cropping, renting by cash, and mortgage deed) before joining the cooperative.
- 56. Whether land was given out by any of the three means (share-cropping, renting by cash, and mortgage deed) in the year 1967-68
- 57. Manager's work experience inside the village before joining the cooperative.
- 58. Manager's work experience outside the village before joining the cooperative.
- 59. Length of the membership period of the present manager in the cooperative.
- 60. Length of the period that the present manager is responsible.

- 61. Whether the responsibility of the manager's position was assumed from the beginning of the cooperative.
- 62. Whether any change occurred in the role of a manager while the current manager was in the office.
- 63. Manager's liking for a fixed salary for his work.
- 64. Whether the cooperative can possibly employ the manager on a fixed salary (as stated by the manager).
- 65. Age of the member (member 1).
- 66. Age of the member (member 2).
- 67. Educational qualification of the member (member 1).
- 68. Educational qualification of the member (member 2).
- 69. Length of membership period (member 1).
- 70. Length of membership period (member 2).
- 71. Member's total deposit (net) till the end of 1967-68 (member 1).
- 72. Member's total deposit (net) till the end of 1967-68 (member 2).
- 73. Amount invested in share purchase till the end of 1967-68 (member 1).
- 74. Amount invested in share purchase till the end of 1967-68 (member 2).
- 75. Total loan received by the member till the end of 1967-68 (member 1).
- 76. Total loan received by the member till the end of 1967-68 (member 2).
- 77. Total amount outstanding to the member till the end of 1967-68 (member 1).
- 78. Total amount outstanding to the member till the end of 1967-68 (member 2).
- 79. Quantity of land owned before joining the cooperative by the member (member 1).

- 80. Quantity of land owned before joining the cooperative by the member (member 2).
- 81. Quantity of land owned in the year 1967-68 by the member (member 1).
- 82. Quantity of land owned in the year 1967-68 by the member (member 2).
- 83. Whether land was brought under cultivation by any of the three means (share-cropping, renting by cash, and mortgage deed) before joining the cooperative (member 1).
- 84. Whether land was brought under cultivation by any of the three means (share-cropping, renting by cash, and mortgage deed) before joining the cooperative (member 2).
- 85. Whether land was given out by any of the three means (share-cropping, renting by cash, and mortgage deed) in the year 1967-68 (member 1).
- 86. Whether land was given out by any of the three means (share-cropping, renting by cash, and mortgage deed) in the year 1967-68 (member 2).
- 87. Whether any training received by the member through the cooperative (member 1).
- 88. Whether any training received by the member through the cooperative (member 2).
- 89. Educational points obtained by the village for its female primary education in the year 1967-68.
- 90. Opinion about the women's program of the PARD (opinion of member 1).
- 91. Opinion about the women's program of the PARD (opinion of member 2).
- 92. Opinion about the family planning program of the PARD (opinion of member 1).
- 93. Opinion about the family planning program of the PARD (opinion of member 2).

APPENDIX D

QUESTIONNAIRES

(From Office Records)

Ques. No. 1.1 Name of the Interviewer:

QUESTIONNAIRE FOR THE COOPERATIVE SOCIETY

I. GENERAL

- 1. Name of the Cooperative:
- Date of starting the Cooperative:
 Date of registration of the Cooperative:
- 4. No. of members in the pioneer group:
- 5. Membership-strength:

Year-wise breakdown of membership-strength

Year	Total No. of members (at the end of the year)	Number of Drop-outs	No. of <u>chulas</u> * covered in the entire village

*chula refers to family under one kitchen (or household unit)

- 6. How many of the members of the pioneer group have dropped out of the organization? Number
- 7. Share-capital and savings

Year-wise breakdown of share capital and savings

Year	Total Deposits by the members (Rs.)	Total share purchase (Rs.)	Average Deposit per member (Rs.)

8. Loans

(a) Year-wise breakdown of loans and repayments

	Total loan Received			Total		
Year	in cash in kind Tot (Rupee-value) (Rs		Total (Rs;)	Loan Repaid (Rs.)	Outstanding (Rs.)	

(b) Utilization of loans

Year	Loans	Utilized	in Various Projects)	Projects	(Name	the
			· · · · · · · · · · · · · · · · · · ·			

9. Inspectors' Grading of the general performance of the Cooperative

Year	Grading	Comments by the Manager of the Cooperative
-		

(Group Consensus of Villagers)

QUESTIONNAIRE FOR THE COOPERATIVE SOCIETY

II. BACKGROUND INFORMATION OF THE COOPERATIVE VILLAGE

- Economic status of the village:
 a. Land-Holding

Size of Land-Holding per Household	No. of Units	Percentage	Modal size
No cultivable land Land up to 2 kanis 2 kanis - 5 kanis 5 kanis - 10 kanis 10 kanis - 15 kanis 15 kanis and above			

b. Income

Categories	No. of House-	Per- centage	Occupations Practiced (According to Importance)		
	holds	centrage	Occupations	Percentage of Income	
Income below subsistance level					
Income at subsistance level					
Income above subsistance level					
Income at higher level (rich)					

3. Earning Per Acre

Types of Land	Proportion o the	Average Income	
	Fraction of 16 annas	Percentage	per Acre (Rs.)
Land of one crop			
Land of two crops			
Land of three crops			

4. Occupational Structure of the Village

Name of Occupation	Number of Households*	Percentage of Total Number of Households

The same household may be included under more than one occupation, if the case be so. This means that the summation of this column may not correspond to the total number of households in the village.

5. Social condition of the village

a. Did you have any factions in the village (Before establishing the cooperative) in the past?

Yes Undecided No b. If 'yes,' then find out the direct and immediate reasons causing the faction according to the following table:

Reasons for the Emergence of the faction

When Originated (How many years back)

- c. Describe the factions and give some examples of their conflict in the past?
- d. How were the conflicts resolved?
- e. Do you feel that there are distinct social strata among the people of your village? Yes Indefinite No
- f. If 'yes,' then when and in what occasions do they manifest themselves very clearly?

g. How many distinct social strata have you in the village? Number______
h. Did you have a village samaj? Yes Undecided No

- i. What roles did it play in the village?
- j. How could somebody become the village leader?

- k. Whom do you think the villagers used to respect most?
- 6. Education of the village:

a.	How many persons could read and write for functional purposes (excluding children under 7 years of age) before the estab- lishment of the cooperative?	Male Female
	And now in the year 1967-68?	Male Female
b.	Did you have a primary school within the village before the cooperative was established?	Yes No
с.	Did you have a primary school within a radius of one mile?	Yes No
d.	Did you have a high school within the radius of one mile?	Yes No
e.	Did you have a madrasa within the radius of one mile?	Yes No

f. Number of educated persons belonging to the village (whether living or not)

Standard	Male		Female		Total	
of Education	Before Coop.	At Present (1967- 68)	Before Coop.	At Present (1967- 68)	Before Coop.	At Present (1967- 68)
Primary School Passed Matricula- tion I.A./ISc/I B.A./BSc/B M.A./MSc/M or above	Com. Com.					

353

- g. Did you use to encourage women's
 (give the majority view)
 Religious education?
 Secular education?
 Yes
 Undecided
 No
 Higher education?
 Yes
 Undecided
 No
- 7. Special Problem:

Did you have any special problem--Physical, Social, or Psychological barring development work in the village?

8. Significant events:

Can you remember any events either good or bad which the villagers will keep in their memory either with a sense of pride or shame for a long time?

Good

Bad

(Group Consensus of the Manager and Members)	Questionnaire No. 1.3 Interviewer:
QUESTIONNAIRE FOR THE	
 How did you get the idea of What were the objectives for 	

3. a. Did you have any experiences of organizational work in the village? (Irrespective of success or failure.)
Yes

Undecided No

b. Describe:

Cases of success:

Cases of failure:

- 4. a. Did you face any trouble in setting up the initial organization? Yes Undecided No
 - b. Describe the nature of trouble:
 - c. People of what characteristics, in your opinion, are the supporters of this organization?
 - d. People of what characteristics, in your opinion, oppose this organization?
- 5. What are the long-range problems of your organization?

QUESTIONNAIRE FOR THE COOPERATIVE SOCIETY

IV. MEMBERSHIP CHARACTERISTICS

1. Socio-economic background of the members

a. Land-Holding (Taking all members together):

Size of Land Holding	No. of Units	Percentage	Modal Size
No cultivable land Land up to 2 kanis 2 kanis - 5 kanis 5 kanis - 10 kanis 10 kanis - 15 kanis 15 kanis and above			

b. Income

Categories	No. of Members	Occupations* practiced (according to impor- tance)
Income below subsistance level		
Income at subsistance level		
Income above subsistance level		
Income at higher level (rich)		

*
 The occupations may be described as follows:
(i) Agriculture; (ii) Agricultural labor; (iii) Industrial
labor; (iv) Jobs and services; (v) Business and Trade, etc.

c. Education

	Class	No. of Members	Percentage of total Population
(iii) (iv) (v) (vi) (vii) (viii)	No Schooling Class I - Class III Class IV - Class V Class VI - Class VIII Class IX - Class X Matriculation College (2 years' and above) Know how to read the Quran Certified literate from the adult education center		

2. Age and sex composition:

Age	Male	Female	Total
Less than 15 15 - 20 years 20 - 25 years 25 - 30 years 30 - 35 years 35 - 40 years 40 - 45 years 45 - 50 years 50 - 60 years 60 and above			

3. What are the most pressing needs of the members?

4. What is the general pattern of compliance of the members towards the Cooperative? (i) Coercive (ii) Indifferent (iii) Calculative (iv) Moral (v) Some combination* of the above. *Specify the above combinations. 5. How strong is the identification of the members with this cooperative group? (i) Very strong (ii) Strong (iii) Neutral (iv) Unpredictable 6. How strong does the group feel to resist external threat and pressure directed towards its disintegration? (i) Very strong, will uphold even if personal sacrifices are needed (ii) Strong (iii) Calculative (neutral) (iv) Unpredictable

- (v) Not so strong

•		ldual Interview rs with Replica			Questionn: Interview		o. 1.5
		QUESTIONNAIR	E FOR THE	COOPE	RATIVE SOC	IETY	
			V. LEAD	ERSHIP			
l.	a.	What were the the village?	roles of	the t:	raditional	leader	rs of
	b.	To whom were	they answe	erable	?		
			their own themselve		age people		
					a bigger	'Samaj	, †
	с.	Are they stil	l function	nal in	your villa	age?	
		On	s, but the have great some spec always (me occasions	tly cha cial of ention	ccasions* 1 those spec	but not	-
2.	a.	What relation with the trad					
		Ve Su Ca In	me leaders ry cordia bserviant sual dependent gressive				
	b.	Has there bee of the cooper leaders of th	ative with	n the 1			C
			s, a posit s, a negat				

Yes, a negative change No change, always positive No change, always negative No change of indifference 3. a. Has the cooperative given rise to a new power-structure?

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Yes
Uncertain
No
```

b. Has the cooperative increased cliques and factions in the village?

Yes Uncertain No

c. Did new leaders emerge because of new roles and responsibilities brought by the cooperative?

Yes Uncertain No

- 4. How was the new leadership absorbed and accommodated in the village power-structure? (whether on a subserviant, equal, or superior role).
- 5. How does the cooperative develop its leaders?
- 6. What kind of relationship the cooperative leaders have with the cooperative members?

(i) Role of a teacher
(ii) Role of a director
(iii) Role of an employee or servant
(iv) Role of a despot
(v) Role of a persuader or motivator
(vi) Role of a benefactor
(vii) Role of a partner in business
(viii) Oligarchical role

7. Whose leadership is most crucial for your cooperative? (more than one response may be given with priorities numbered, highest priority indicated by 1).

> PARD KTCCA Government Cooperative Department Cooperative Chairman Cooperative Organizer/Manager Cooperative members Others (mention name).

8. a. Who is the most influential leader of your cooperative? (more than one response may be given with priorities numbered as before; the leaders should be mentioned by their positions or roles, not names).

•

b. What are the sanctions behind his/their authority?

Questionnaire No. 1.6 Interviewer:

QUESTIONNAIRE FOR THE COOPERATIVE SOCIETY

VI. PROJECT WORK OF THE COOPERATIVE

 What different projects it has taken since it was first established? (project refers to a planned purposeful activity undertaken by a group or individual initiated or supported by the cooperative).

Name of projects (in chronological order)	Year

2. Give detailed description of the projects according to the following proforma (projects to be listed in chronological order as Project Nos. 1, 2, 3, and so on.)

		Project No. l	Project No. 2
а.	Project Name of the project: Starting date: Nature and description of project		
b.	Objectives Conceived at initial stage Conceived at the subsequent stages (if there has been any change of original objectives)		
с.	Status of the project Great success Satisfactory Doubtful success Unsuccessful		

		Project No. 1	Project No. 2
	Continued at higher level Continued as it was Continued with modification Terminated (Give date of termination)		
d.	Proposed by whom		
	<pre>By Cooperative By KTCCA/PARD (with some compulsion) By KTCCA/PARD (without compulsion) By KTCCA/PARD (with incentive) By the Govt. (with compulsion) By the Govt. (without compulsion) By the Govt. (with incentive) By other Agencies (on business terms) By other Agencies (with incentive) By joint collaboration between</pre>		
	With or without		
e.	Supervised by whom		
	Cooperative (self-supervision) KTCCA/PARD Government Others (mention) Supervision by Cooperative and KTCCA/PARD Supervision by Govt. and PARD/ KTCCA Supervision by other agency PARD/KTCCA (Name other agency in the column of comments)		
f.	Material Resources		
	From individual members From cooperative Jointly from members and cooperative From the KTCCA From the PARD Jointly from KTCCA and PARD From the Government From the Government From other agencies (name other agencies in the column of comments		

	Project No. 1	Project No. 2
Procurement of Finance Individual funds Cooperative funds Loan from KTCCA Subsidy from government Subsidy from PARD Grant from government Grant from PARD Grant from other agencies (mention)		
Investing partners according to importance (rank them according to importance by putting 1, 2, etc. against them).		
Member of the cooperative (individual or small group) Cooperative society as a whole KTCCA Thana Council Government department PARD Other agencies Any combination of the above (Name other agencies or the combination)		
Sharing of Benefits		
Equally by all Unequally by all By some By a very few Sharing process not properly		
	Individual funds Cooperative funds Loan from KTCCA Subsidy from government Subsidy from PARD Grant from government Grant from other agencies (mention) Investing partners according to importance (rank them according to importance by putting 1, 2, etc. against them). Member of the cooperative (individual or small group) Cooperative society as a whole KTCCA Thana Council Government department PARD Other agencies Any combination of the above (Name other agencies or the combination) Sharing of Benefits Equally by all Unequally by all By some By a very few	No. 1Procurement of FinanceIndividual fundsCooperative fundsLoan from KTCCASubsidy from governmentSubsidy from PARDGrant from governmentGrant from other agencies(mention)Investing partners according toimportance (rank them accordingto importance by putting 1, 2,etc. against them).Member of the cooperative(individual or small group)Cooperative society as a wholeKTCCAThana CouncilGovernment departmentPARDOther agenciesAny combination of the above(Name other agencies orthe combination)Sharing of BenefitsEqually by allUnequally by allBy someBy a very fewSharing process not properly

- 3. Educational services through cooperative
 - a. What preparations were necessary for making the cooperative program a success?
 - (i) In Technical aspects
 - (ii) In Social aspects
 - (iii) In Psychological aspects

on and production (includes irrigation, extension training) and credit facilities eparations made? ccording to chronological order (use regrame state from the code given under the table): ccording to chronological order (use regrame strong the code given under the table): ccording to chronological order (use regrame strong the code given under the table): Training Training time over the code given under the table): Training Training time over the code given under the table): Training Training time over the code given under the table): Training Training time over the code given under the table): Training time of times over the code given under the table): Training time of times over the code given under the table): Training the course the code given under the table): Training the course the course of the code over the		Projects			In	In Technical Aspects	In Social Aspects	: In Psychological	tcal Aspects	
Reparations made? Eparations made? coording to chronolugical order Turend in the code given under the table): Training to chronolugical order Turend in the code given under the table): Training training times attending the coopera- Training in total year lover trainees from numter of quality of training time course attending years over training of the course attending years over training fraining frend in total by Year - Tending the Course attending to attending the Course attending	griculture exten mechanization a apital formation	ision and pr ind extensio and credit	oduction (17 n training) facilities		gation,					
eparations made? coording to chronological order (whe response scles from the code given under the table): Training Training Training attended attended over trainees from number of training attended attended over the course the course over training trainees over training trainees over training trainees over training trainees over training the course between the course over training of the course between the between the between the course between the between the between the between the between the course between the between	Storage and marke Family planning	ting								
preparations mate? according to chronological onler (use regenue of training tradit training training training training training tradit training	Women's program									
eparations made: ccording to chronological order (use regents order from the code given under the table): Type of Venue of times attended over trainees from Trend in the tables. Training Training Training attended over trainees over training of the cooperation of the course attending trainees over training of the course attending trainees over training of the course attending trainees over training of the course attending	ducation project									
TrainingNo. ofTrend in the no. of timesTotal no. of traines fromTrend in the unumter of trendingNo. of trainingTrainingTrainingTrend in the time courseTrend in the trainees overNumter of trainingTrainingTrainingTrainingTrend in the trainees overNumter of trainingNalue of TrainingTrendNo. of times the courseTotal No. of trainees overNumter of trainingNalue of TrainingTrendNo. of trainingNo. of trainingNo. of trainingRAbnoy Asram - AA Abnoy Asram - AA trainees - C.VIIITotal No. of traineesIncentives traineesRValue of TrainingTrendNo. of traineesNot givenRAbnoy Asram - AA traineesNot givenNot givenAnVillage- C.VIII typearNot givenAnVillage- C.VIII typearNot givenCentral village- C.VIII typearNot goodNot givenConcretConcret tot monNot goodNot givenConcretConcret tot monNot goodNot givenConcretConcret tot repetitionNot goodNot givenConcretConcret tot monNot givenNot givenConcretConcret tot repetitionNot givenNot given	Ном и (1)	preparation ; according	s made? to chronclug		or eruodred ern;	ids from the code g	iven under the t	able):		
KValue of TrainingTrendTotal No. of trainingQuality of Quality of TrainingRValue of TrainingTrendTotal No. of trainingQuality of TrainingRValue of TrainingTrendTotal No. of trainingQuality of TrainingRValue of TrainingTrendTotal No. of trainingQuality of TrainingRVoluariPARDUV Year trainingVery good courseARVillage- VillUV Year total no.Very good 	- ame of Training	Type of Training	Venue of Training	No. of times attended in total	Trend In the no. of times attendei over year	Total no. of trainees from the coopera- tive attending the course	Trend in the numter of trainees over years	Quality of training	Incentives given if any	365
Value of TrainingTrendTotal No. of trainingQuality of trainingRWaboy Asram - AA Abboy Asram - AA KotbariIncreasing Year + by YearTotal No. of training the by YearTotal No. of trainingARVillage- Vill by YearDecreasing Year - courseTotal no. courseVery good stisfactoryARVillage- Vill bertral villageLy Year courseVery good courseARVillage- C.Vill bettCGD/FLy Year of persons with- out repetitionNot good food										
	<pre>/pe of Training sekly regular - nually regular - nually regular ccasionally more ccasionally more times/year - OM oradic-one or t orradic-one or t ifmes in all - S</pre>	A R han	ue of Train, oy Asram - / bari - 1 lage - / tral village ar Hospital . Govt. Depi Farm - K	LIE 14 PARD 7111 7111 * - C.V111 * - S. Hos. ttCGD/F	<u>Trend</u> Increasing Year by Year by Year ky Year Keeping constar			-	t G-TA en - G-S onsibility fork) - NG	

b. What preparations are necessary for making the following projects successful?

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365 I

TCCA/ Tanking General Comments on Trend of Quality of General Education Education tive tive tive tive tive tive tive tive
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embers ficial ible) olumn
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(ii) General Education

(iii) Group support

Previous records of group actions Successful Unsuccessful

4. Members participation and enthusiasm

a.	Members' attendance in weekly meetings	90-100% 75% 50% Less than 40%
b.	Members' interest in learning improved skills	High Medium Low
с.	Members' efforts to repay cooperative loans in time	Very high Satisfactory Low Very low
d.	Members' efforts to save money	Very high Satisfactory Low Very low
e.	Members' efforts to increase deposit with the cooperative account	Very high Satisfactory Low Very low
f.	Members' loyalty to the cooperative as a whole	Very high Satisfactory Low Very low
g.	Reasonable sharing of risks by the members	Very high Satisfactory Low Very low

5. What are the different important ways by which you maintain your channels of communication and business transactions with the central association (KTCCA)? (mention the ways according to importance).

6. What habits or educational processes (both positive or negative) have been incorporated in the individual members and the cooperative group because of the project work initiated in the village?

And the second second

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Individual level
(i)
(ii)
(iii)
Group level
(i)
(ii)
```

(111)

(Group Consensus of the Members) Questionnaire No. 1.7 Interviewer:

QUESTIONNAIRE FOR THE COOPERATIVE SOCIETY

VII. GENERAL PROBLEMS OF THE COOPERATIVE

- 1. What were the most important problems of the cooperative in its initial stage?
 - a. Psychological
 - b. Social
 - c. Technical
- 2. What are the most important problems at present?
 - a. Management and Leadership
 - b. Social-Psychological (Loyalty, discipline, commitment, cooperation, etc.)
 - c. Technical (resources)
- 3. a. Did your organization ever face any serious crisis? Yes

No

b. If 'yes' how many times? Number_____

c. Describe in brief the most serious crisis

d. How was it avoided?

4. General comments about the nature of problems and efforts to solve them

(Individual Interview of Questionnaire No. 1.8 Members with Replication) Interviewer:

> QUESTIONNAIRE FOR THE COOPERATIVE SOCIETY VIII. GENERAL REACTIONS OF THE MEMBERS

- 1. a. What are some of the good aspects of your Cooperative (may include projects, notions, outcomes, practices, etc.)?
 - b. What are some of the bad aspects of your Cooperative (may include projects, notions, outcomes, practices, etc.)?
- 2. What training needs are there for the members for developing the cooperative programs effectively?
- 3. Do you have any general or specific objections against the program?
- 4. a. What is your opinion about the women's program of the PARD?
 - b. What is your opinion about the Family Planning Program of the PARD?
- 5. Can you suggest something in the nature of a program other than the cooperative which could have been more effective for your village development?

(Individual Interview with the Manager)

Questionnaire No. 2 Interviewer:

QUESTIONNAIRE FOR THE COOPERATIVE MANAGER

General

- 1. Name of the Cooperative society:
- 2. Manager's individual particulars:
 - a. Name:
 - b. Age:
 - c. Educational Qualification:
 - d. Occupation

Major:

Minor:

e. Economic status

(1) Landed property	erty					
	Land Actually Owned	Land under Cultivation	Land on Share-cropping	Land on Lease	Lease	Land on Mortgage
	DOTINO		Taken Given	Taken	Glven	Taken Given
Before joining* the cooperative						
At present						
*If the member should be filled in.	*If the membership period be filled in. Otherwise	does not both the	exceed one year, then only row 'At present' two rows should be filled in.	then only filled	row 'At In.	present '
(11) Income						
Sources of Income	le				с , ту	Percentage of total income
Land Wages (both agricultural a Jobs and services (outside Jobs and comissions (in co Trade and business Others (please mention)		and industrial) de cooperative) cooperative)				

(iii) Economic position

Income below subsistance level Income at subsistance level Income above subsistance level Income at higher level

- 3. Any other experiences of the manager before joining the Cooperative
 a. Within the village:
 b. Outside the village:
- 4. When did you become a member of the Cooperative?

Date:

Date:

- 5. When did you assume the charge of management?
- 6. Is it from the beginning of the Cooperative?

Yes	
No	

- 7. If 'no', what happened to the previous manager? (Reasons for his removal or going away etc.)
- 8. How many managers did precede you?
- 9. What are the general reasons for the changes of the managers?
- 10. How were you selected for the position of the manager?
- 11. Do you have any special advantages over the other managers which were in cognizance of the group? Yes Uncertain No
- 12. If 'yes,' what are they?

13. a. How long do you expect to work with the cooperative?

I am working temporarily in somebody else's place

I am working for a short period

I am going to work for a long period

I shall work as long as I can train up somebody to take my place

I will work as long as the group wants me

I do not know

b. Comment on your response by showing reasons.

Role of the Manager

- 14. What were your roles in the beginning when you took charge of the cooperative?
- 15. a. Have there been any changes in the role of a manager within the period of your office?

Yes Uncertain No

- b. If 'yes,' what are the most important changes?
- 16. What are the most improtant functions that you must do?
- 17. What are the most important functions that you consider most difficult to perform? (Arrange them in a descending order of difficulty.)

Problems of Organization

- 18. What are the problems that you face in organizing the cooperative program in the village?
- 19. What assistance from various quarters can you count to solve these problems?

20. What are a few most important problems you have that hinder progress of the cooperative?

Work Efficiency

- 21. How are you trying to increase the efficiency of your cooperative group?
- 22. How do you feel working with your group as a manager?

Pleasant Normal Troublesome

23. What do you feel about the impact of the various training and conferences of the KTCCA/PARD on your skill as a manager?

Very helpful Helpful Neutral Not so helpful

24. How can the manager's efficiency be improved? (according to priority).

Compensation and Remuneration

- 25. How were you compensated in the beginning?
- 26. Will you like to work as a manager on a fixed salary?

Yes Uncertain No

27. a. Is it possible now for the cooperative to employ you on a fixed salary?

Yes Uncertain No

b. If 'yes,' then how?

c. If 'no,' then why?

- 28. What compensatory allowances you get now?
- 29. Your comments, if any, about various allowances.

Work Satisfaction

- 30. What are your purposes in becoming the manager?
- 31. What personal loss or benefit have you incurred by being the manager? (If possible support your statements with figures and examples.)

Economic: Social: Others:

32. Are you satisfied with your work:

Yes Uncertain No

- 33. Why? Give reasons.
- 34. How could this work be made more satisfying to the manager and useful to the members?

QUESTIONNAIRE FOR THE COOPERATIVE MEMBERS

377

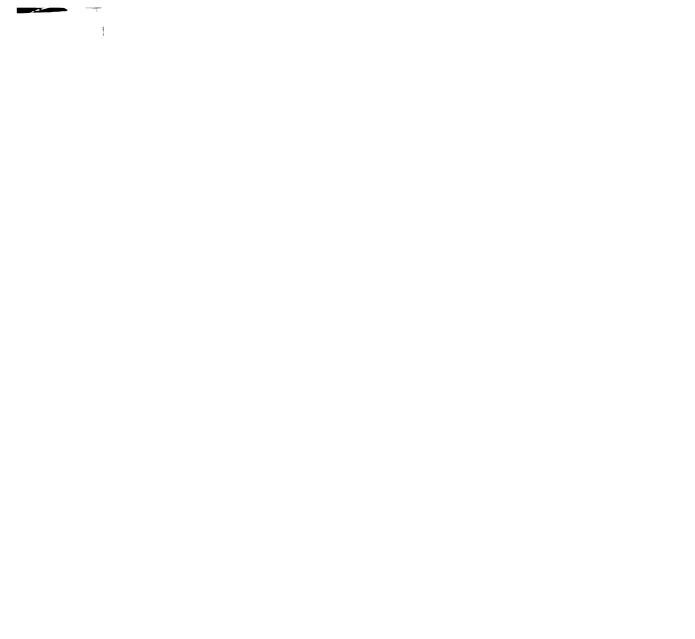
- 1. a. Name of the cooperative society:
 - b. Inspector's average grading of the cooperative society:
- 2. Particulars of the member:
 - a. Name:
 - b. Age:
 - c. Educational standard:
 - d. Occupation

Major:

Minor:

- e. Member since when?
- f. Deposit up-to date: (with the cooperative)
- g. Share capital purchased:
- h. Loan received on various occasions:

Year	Amount of Loan Received (Rs.)	Final Outstanding (Rs.)	Total Repayment (Rs.)



(1) Landed property	perty:							
	Land Actually Owned	Land under Cultivation	Land on Share-crop	Land on Share-cropping	Land on Lease	u e	Land on Mortgage	on age
			Taken	Given	Taken	Given	Taken	Given
Before joining* the cooperative								
At present								
*If the m should be fille	*If the membership period be filled in. Otherwise	does not both the	xceed o wo rows	exceed one year, then only row 'At present two rows should be filled in.	then or be fille	lly row d in.	'At pres	ent'
j. Sources of	of Income:							
Sources	es of Income	le		Pe	rcentage	e of Tota	Percentage of Total Income	0

Veen	Noture of Training	Duration	Comn	nents*
Year	Nature of Training		on Allowances	on Usefulness

k. Various training received through the cooperative:

*Comments on allowances may be expressed as "given" and "not given"; on usefulness as (i) Very useful, (ii) Useful, and (iii) Not so useful'.

- 3. Why did you become a member?
- 4. What specific benefits did you derive by being a member of the cooperative? (Your statements must be supported by figures and examples and should be specific rather than general.)
 - a. Economic:

	On landed property: On credit and deposit: On business and trade:
(iv)	
	cooperative):
(v)	On jobs and commissions (with
	the cocperative):
Social:	status within village:

- Social status within village: Social status outside village:
- d. Others:

b.

- 5. a. How did you help the cooperative grow?
 - b. Were these efforts effective?

Yes Uncertain No

- c. If 'yes', do you think that there were also other factors besides your effort to make them effective?
- d. If 'no', why?
- 6. a. What are the problems of your cooperative?
 - b. How they may be solved?
- 7. a. What problems do you see with the members in relation to the cooperative?
 - b. How can they be solved?
- 8. a. Do you face any problem in remaining a member of the cooperative?

Yes Uncertain No

- b. If 'yes', what are the problems?
- 9. Do you have any special comments on the following aspects of the cooperative?
 - a. Management:
 - b. Educational program and its impact:
 - c. Community involvement:
 - d. Future prospects:
 - e. Any other aspects:

