CREDIT AND AGRICULTURAL DEVELOPMENT

(A CASE STUDY OF TWO VILLAGES

IN WEST TRIPURA DISTRICT OF TRIPURA)

A Thesis submitted to the University of Hyderabad

for the award of the Degree of

DOCTOR OF PHILOSOPHY

By

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JUNE 1996

Dedicated to my Parents

D E C L A R A T I O N

I hereby declare that the work embodied in this thesis entitled "Credit and Agricultural Development (A Case Study of Two Villages in West Tripura District of Tripura)", carried out by me under the supervision of **Professor G. Nancharaiah, Professor of Economics**, Department of Economics, School of Social Sciences, University of Hyderabad, is original and this had not been submitted for any degree either in part or in full to any other University or to this University.

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C E R T I F I C A T E

This is to certify that the research work compiled in this thesis entitled **"Credit and Agricultural Development (A Case Study of Two Villages in West Tripura District of Tripura)"**, has been carried out by Mr. Pratapaditya Datta under my supervision and the same has not been submitted elsewhere for a Ph.D. degree to the best of my knowledge.

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C O N T E N T S

		ACKNOWLEDGEMENT	
		LIST OF TABLES	
CHAPTER	I	INTRODUCTION	2- 20
	II	REVIEW OF LITERATURE	22- 55
	III	PROGRESS OF INSTITUTIONAL FINANCE IN AGRICULTURE	57- 79
	IV	PROFILE OF WEST TRIPURA DISTRICT AND SAMPLE VILLAGES	81-103
	V	ESTIMATION OF CREDIT GAP AND EXTENT OF INDEBTEDNESS	105-185
	VI	INTERLINKAGES BETWEEN LAND, LABOUR AND CREDIT MARKETS	187-216
	VII	SUMMARY AND CONCLUSIONS	218-235
		BIBLIOGRAPHY	236-248
		APPENDIX	249-251

A C K N O W L E D G E M E N T S

It is my great pleasure to thank my supervisor of this study, Professor G. Nancharaiah, for guiding and extending all the possible help to me inspite of his busy schedule.

I would like to thank all the faculty members of Department of Economics, University of Hyderabad.

It is my pleasure to express my gratefulness to all the staff of various institutions and the villagers of the sample villages to get the related materials and informations. I extend my thanks to Mr. P.O. Koshy, for neatly typing this thesis and to my father, Mr. Himangshu Kumar Datta for his help in proof reading.

Finally my thanks go to my parents who gave me continuous inspiration to complete this thesis.

(Pratapaditya Datta)

LIST OF TABLES

Table No.	Caption	Page No.
3.A.1	Progress of State Co-operative Bank in India	70
3.A.2	Flow of Co-operative Credit to Agriculture	70
3.A.3	Progress of District Central Co-operative Bank in India	71
3.A.4	Progress of Primary Agricultural Credit Societies (PACS) in India	71
3.A.5	Progress of Land Development Bank in India	72
3.A.6	Expansion of Commercial Banks in India	72
3.A.7	Direct Agricultural loan issued from Commercial Banks	73
3.A.8	Progress of Regional Rural Banks (RRBs)	73
3.B.1	Progress of Tripura State Co-operative Bank	74
3.B.2	Progress of PACs in Tripura	74
3.B.3	Position of Tripura Co-operative Land Development Bank Limited	75
3.B.4	District-wise Branch expansion of Tripura Gramin Bank (RRB)	76
3.B.5	Loan Operation of Tripura Gramin Bank	77
3.B.6	Expansion of Commercial Banks in Tripura	77
3.B.7	Deposits and Advances to Agricultural and Allied Sector from the Commercial Banks	78
3.B.8	Recovery Position of Different Institutions	78
4.A.i	Occupational Structure of West Tripura	85
4.A.k	Land utilisation pattern in West Tripura District (1992-93)	86

4.A.1	Operational land holdings in West Tripura	87
4.A.o	Consumption of Chemical Fertilizers in West Tripura District	89
4.B.e	Distribution of population by Caste (1991-92), Khas Madhupur village	92
4.B.f	Distribution of population by occupations, Khas Madhupur village	93
4.B.h	Land utilisation pattern in Khas Madhupur village (1991-92)	94
4.C.e	Distribution of population by Caste (1991-92), Ishanchandra Nagar village	98
4.C.f	Distribution of population by occupations, Ishanchandra Nagar village	99
4.C.h	Land utilisation pattern in Ishanchandra Nagar village (1991-92)	100
5.a.1	Distribution of population among different size group by age and gender (Irrigated)	146
5.a.2	Distribution of population among different size group by age and gender (Non-irrigated)	146
5.b.1	Distribution of sample farmers among different size group of farmers by level of education (Irrigated)	147
5.b.2	Distribution of sample farmers among different size groups by level of education (Non-irrigated)	147
5.c	Distribution of land owning households by size groups and operational area (in hect.)	148
5.c.i	Cumulative frequency of land holdings in the village (Irrigated)	148
5.c.ii	Cumulative frequency of land holdings in the village (Non-irrigated)	149
5.d	Average size of family according to different size groups and No. of earners and dependents	150
5.e	Distribution of `Leased in' and `Leased out' land among different size groups (in hect.)	150
5.f	Distribution of area under irrigation among different size groups (in hect.)	151

5.g.1	Distribution of assets among different size group of farmers (average) (Irrigated)	151
5.g.2	Distribution of assets among different size group of farmers (average) (Non-irrigated)	152
5.h.1	Cropping pattern followed by sample farmers among different size groups (Irrigated)	152
5.h.2	Cropping pattern followed by sample farmers among the different size groups (Non-Irrigated)	153
5.i	Intensity of cropping among different size groups	153
5.j.1	Adoption of farm technology among different size groups (No. of farmers) - Irrigated	154
5.j.2	Adoption of farm technology among different size groups (No. of farmers) - Non-Irrigated	154
5.k.1	Distribution of expenses in cash and kind (imputed cost) among different size groups (per hect.) (Irrigated)	155
5.k.2	Distribution of expenses in cash and kind (imputed cost) among different size groups (per hect.) (Non-Irrigated)	156
5.l	Distribution of gross farm income and net farm income among different size groups (per hect.)	157
5.m.1	Consumption pattern of the sample farmers by size groups (per farmer) - Irrigated	158
5.m.2.	Consumption pattern of the sample farmers by size groups (per farmer) - Non-irrigated	158
5.m.3	Gross savings pattern of different size group of farmers (per farmer in Rupees)	159
5.n.1a	Credit requirement, credit gap, according to alternative (i) (per farmer) (Irrigated)	160
5.n.1b	Credit requirement, credit gap according to alternative (i) (per farmer) (Non-irrigated)	161
5.n.2a	Credit requirement and credit gap according to alternative (ii), Irrigated (per hect.)	162
5.n.2b	Credit requirement and credit gap according to alternative (ii), Non-irrigated (per hect.)	163

5.o	Distribution of borrower farmers among different size groups	164
5.p.1	Distribution of borrowed amount in different institutions among different size groups - (per borrower in Rupees) (Irrigated)	165
5.p.2	Distribution of borrowed amount in different institutions among different size groups - (per borrower in Rupees) (Non-Irrigated)	166
5.q.1	Distribution of borrowed amount according to rate of interest and size group - Irrigated	167
5.q.2	Distribution of borrowed amount according to rate of interest and size groups - Non-irrigated	168
5.r.1	Distribution of borrowed amount according to rate of interest and different institutions and non-institutions among different size groups - Irrigated	169
5.r.2	Distribution of borrowed amount according to rate of interest and different institutions and non-institutions among different size groups - Non-irrigated	170
5.s.1	Distribution of borrowed amount by security and size groups - Irrigated	171
5.s.2	Distribution of borrowed amount by security and size groups - Non-irrigated	172
5.t.1	Distribution of borrowed amount according to use pattern among different size groups - Irrigated	173
5.t.2	Distribution of borrowed amount according to use pattern among different size groups - Non-irrigated	174
5.u.1	Distribution of defaulters among different size groups - Irrigated	175
5.u.2	Distribution of defaulters among different size groups - Non-irrigated	176
5.v.1	Classification of overdues of the landless farmers according to period of default	177
5.v.2	Classification of overdues of the marginal farmers according to period of default	178

5.v.3	Classification of overdues of the small farmers according to period of default	179
5.v.4	Classification of overdues of the medium farmers according to period of default	180
5.w.1	Frequency distribution according to range of debt among different size groups - Irrigated	181
5.w.2	Frequency distribution according to range of debt among different size groups - Non-irrigated	182
6.A.1	Distribution of households engaged in land market - Irrigated	206
6.A.2	Distribution of households engaged in land market - Non-irrigated	206
6.B.1	Distribution of tenants according to terms of tenancy - Irrigated	207
6.B.2	Distribution of tenants according to terms of tenancy - Non-irrigated	208
6.C.1	Distribution of households according to their association in the labour market - Irrigated	209
6.C.2	Distribution of households according to their association in the labour market - Non-irrigated	209
6.D.i.1	Distribution of tenants according to their association in credit market - Irrigated	210
6.D.i.2	Distribution of tenants according to their association in credit market - Non-irrigated	210
6.D.ii.1	Distribution of agricultural labour according to their association in credit market - Irrigated	211
6.D.ii.2	Distribution of agricultural labourer according to their association in credit market - Non-irrigated	211
6.E.i.1	Distribution of tenant-cum-creditor according to rate of interest - Irrigated	212
6.E.i.2	Distribution of tenant-cum-creditor according to rate of interest - Non-irrigated	212

6.E.ii.1	Distribution of agricultural labourer-cum-creditor according to rate of interest Irrigated	213
6.E.ii.2	Distribution of agricultural labourer-cum-creditor according to rate of interest - Non-irrigated	213
6.F.1	Percentage distribution of linkages according to participation of households in different markets - Irrigated	214
6.F.2	Percentage distribution of linkages according to participation of households in different markets - Non-irrigated	214

C H A P T E R - I

I N T R O D U C T I O N

INTRODUCTION

The importance of agricultural development in general economic development is emphasised on the ground that agriculture is the most populous sector of the economy in the early stages of economic growth in most of the countries. Although industrialisation is viewed as a carrier of sustained growth, economist like Jacob Viner argues that a high degree of industrialisation is not necessary for raising the per capita income of a country. This can be achieved through improving agriculture without having any great recourse to the development of Industries. Dominantly, agricultural countries are generally found to be poor, it is not because they are agricultural but because their agriculture is backward.[1]

The agricultural growth acts as a catalytic agent for economic growth in underdeveloped countries. Historical evidence clearly shows that no country has moved from chronic stagnation into the take-off stage of economic development without first achieving a substantial gain in agricultural productivity.[2] The history of economic development of countries like England, Russia, Australia, Japan shows us the role of agriculture in economic development. Japan stands as a conspicuous testimony to the fact that for the achievement of spectacular industrial development a firm basis of the agricultural sector is desirable. It is clear that, without the prior increase in agricultural productivity the financing of Japanese industrial development would not

have been possible.[3]

The basic problem faced by most of the developing countries is to move from a very low to high income and employment levels without any violent fluctuation and disturbances. The task is not merely to prevent stagnation but also to inject a break-through by means of deliberate and dynamic policies of investment for there could be no such thing as automatic adjustment as an answer for their economic stagnation.[4] The starting point of all economic plans in underdeveloped countries is, therefore, to provide a break-through at the point of low capital formation or investment. This is because the rate of potential increase in income, i.e. the rate of development is a function of the proportion of the income saved and invested and of the co-efficient of productivity.[5] So, at the early stages of development, a developing country could overcome the problem of capital and pressure of population only through the development of agriculture, which could give an impetus and supply the necessary resources for the industrialisation.

In India, agriculture historically forms the base and has been treated as primary sector of the economy. Agriculture, the Finance Commission observes, is not merely an occupation or business proposition for the people, it is a tradition, way of life which for centuries have shaped their thoughts, outlook and culture.[6] Today, in India, agriculture accounts for about 30 per cent of Gross Domestic Product and employs about two-thirds of the labour force. In 1994-95, agricultural exports account for

about 5 per cent of the total exports.[7] It has grown at a rate of 2.67 per cent per annum since 1966-67.[8]

Prior to independence, agriculture was a thoroughly neglected sector and no deliberate attempt was made by the government to uplift the cultivators from their deteriorating plight of impoverishment and indebtedness. The farmers were practising substance farming and agriculture was more a way of life than a profession. On the other hand, the yields per hectare were very low and there was very little marketable surplus to build any buffer stocks for lean years. After the partition in 1947, the important wheat growing area of Punjab went to Pakistan, it made the situation more worse, resulting in wider gap between our requirements and production and this had to be met by imports resulting into drains of valuable foreign exchange.[9]

Therefore, the policy makers were convinced that without substantial increase in the production of food and raw materials i.e. agricultural production, it would be impossible to sustain a higher tempo of growth. So, in different five year plans since independence, greater emphasis was laid on agricutlure. During last forty years of planning Indian agriculture experienced a change towards the modernisation of agriculture and it has been reflected in its achievements. Since mid 1960's, the traditional agricultural practices have been gradually replaced by modern technology and a vertible revolution has taken place in our country. This strategy has been called by various names, eg. modern agri-cultural technology, seed-fertilizer-water technology

or green revolution. As a result of the new strategy, area under improved seeds has gone up from about 1.9 million hectares during 1966-67 to 71.3 million hectares in 1994-95.[10] The new varieties are of short-duration and as a result instead of growing one crop, in several irrigated area two crops, sometimes three crops are grown. Food grains production has increased from 50 million tonnes in 1950-51 to 108 million tonnes by 1970-71 and reached the peak of 190.1 million tonnes in 1994-95.[11] Gross irrigated area increased from 23 million hectares in 1950-51 to 87.07 million hectares in 1994-95.[12] Area sown more than once was less than 2 million hectares in 1950-51 which has increased to 12 million hectares in 1992-93.[13]

In the process of agricultural development credit plays an important role to accelerate the growth in the developing countries like India. Credit of the right quantity and of the right kind immensely contributes to agricultural development. Once the match stick of credit ignites the flame better managerial skills sustain it and the holy process of one inducing the other and covering all comes into effect. Thus the role of credit consists in laying the foundation stone of the farm revolution and maintaining the structure built upon it.[14] The advent of green revolution is new phase in the development of Indian agriculture which needs a variety of high pay-off inputs like high yielding variety seeds, chemical fertilizers, pesticides and other agricultural inputs. These inputs can be made available in required quantities to farmers by provision of farm credit. Credit not only helps the process that leads to agricultural

development, but also improves the different rural market relationship, e.g. the linkages between credit, land and labour markets.

Agricultural credit needs may be divided into two, i.e. (a) on the basis of time and (b) on the basis of purpose. On the basis of time credit can be differentiated as short-term, medium and long-term credit. The duration of short-term credit does not exceed 15 months. In the case of medium term the period ranges between 15 months and less than five years. The long-term credit generally issued for more than five years. On the other hand, needs on the basis of purposes are of two types, e.g. (i) productive purposes such as loans for purchase of seeds, fertilizer, agricultural implements, digging of wells, payment of wages etc. (ii) Consumption purposes, e.g. loans for the period between harvesting of new crops and marketing of old crops, in the time of drought, flood, etc.

The sources which are financing the above mentioned needs can be divided broadly in two groups, e.g. (1) institutional sources, and (ii) non-institutional sources. The institutional source comprises of Reserve Bank of India, Co-operatives, Commercial Banks, Regional Rural Banks, National Agricultural Bank of Rural Development, Government etc. On the other hand, non-institutional source comprises of money-lenders, traders, relatives etc. They are known in different names in different region, e.g. Bania, Mahajan, Sahukar, Kistiwala, Nanavati or Chetty.

A review of credit supply from different agencies shows that in 1951-52, of the total credit 93 per cent was met by non-institutional sources.[15] With the nationalisation of commercial banks, introduction of Regional Rural Banks and diversification of Co-operative Credit, the share of institutional sources rose to 83 per cent of total credit supply in 1981-82. Agency-wise achievement shows that, direct agricultural loan issued from the commercial banks increased from Rs.188 crores in 1969 to Rs.4,776 crores in 1990-91.[16] Loans advanced from the primary agricultural credit societies has been increased from 23 crores in 1950-51 to Rs.4,973 crores in 1991-92.[17] Loans issued from regional rural banks to the agricultural sector also increased from Rs.168 crores in 1976 to Rs.335 crores at the end of September 1991.[18]

Credit requirements has been estimated by different institutions and also by individuals at different point of time. The committee constituted by Reserve Bank of India in their All India Credit Survey in 1954, estimated the requirements for agriculture at Rs.2,000 crores. In 1965, the working group of agricultural production Board estimated the total credit needs for agriculture at Rs.1,106 crores for 1970-71. The All India Rural Credit Review Committee (1969) estimated the short term production requirement at Rs.2,000 crores in 1973-74. The medium and long-term investment credit requirement during the fourth five-year plan were estimated at Rs.500 crores and Rs.1,500 crores, respectively.[19] The sub-group on agricultural credit of the working

group on co-operation for the fifth plan estimated the credit requirements of the agricultural sector at Rs.3,000 crores for the year 1978-79. The National Commission on agriculture estimated the total farm credit at Rs.16,549 crores by the year 1985 of which Rs.7,884 crores would be of short-term nature. Desai[20] in his forthcoming paper estimated that requirements of agricultural credit will be at Rs.39,322 crores in 1994-95 and Rs.47,842 crores by 2000 A.D. Using his method and with little variation the agricultural credit review committee constituted by RBI in 1989[21] found that the scale of credit requirements would be Rs.32,808 crores in 1994-95 and Rs.39,834 crores in 1999-2000 (estimate of demand for short term credit for crop production).

As Desai[22] told, at no time attempt was made to find out the relationship between the supply of institutional credit and credit requirements (demand) for agricultural production, barring a few. According to Gadgil[23], the production costs of crops during 1982-83 at current prices have been estimated at Rs.17,609 crores (CMIE 1985). The nominal amount of formal production credit flow during the same year was Rs.2,598 crores or only 15 per cent of the production cost. Desai[24] made an attempt in 1984-85, which reveals that the aggregate short-term credit for agricultural production from all the institutional sources in 1984-85 amounted to Rs.3,219 crores, whereas the credit requirements in cash and kind expenditure was Rs.27,824 crores. It means only 11.57 per cent of the required credit was covered by institutional sources.

The above facts indicate that non-institutional sources are still important source of meeting the credit requirements of the farmers. In the rural economy credit market does not operate independently. In the process, it got involved with other markets, e.g. land, labour. This has been established by works of economist like Bhaduri, Prasad, Rudra, etc. Amit Bhahuri[25] took a survey of 26 villages of Birbhum district in West Bengal. He found that usury and land ownership in the hands of same landlords which leads to the perpetual indebtedness of the farmers. In his study, in three districts in Bihar, Prasad[26] found in the process of taking consumption loan and its accumulation with high interest rate forced the semi-proletariat farmers to sell their small parcel of land to the landlord. Bardhan and Rudra[27] took a study in Eastern India. They found that loans taken by tenants and labourers were sometime interest-free and occasionally interest rate found to be charged through paying wages lower than the market wage rates.

There are many micro and macro level studies conducted by individual scholars and institutions which estimated the credit requirements, indebted position of the farmers and also functioning of rural markets. However, in the North-Eastern region particularly in Tripura state where, three-fourth of the total population dependent upon agriculture and allied activities and about 40 per cent of the state income from this sector,[28] there are few studies in these fields. Hence, the present study is a modest attempt to find out the credit requirements of the farm-

ers, the availability of credit from different sources, indebted position of the farmers and also the nature of functioning of different rural markets, e.g. credit, land and labour in two villages of Bishalgarh Development Block in West Tripura district of Tripura.

OBJECTIVES

The main objectives of the present study are as follows.

a) to estimate the cost of cultivation of different crops and requirements of credit among different size group of farmers and also the credit gap if exists in both the villages i.e. irrigated and non-irrigated villages.

b) to examine the indebtedness of the farmers to different sources, i.e. institutional and non-institutional sources in both the villages, and

c) to find out the extent and nature of different types of linkages between credit, land and labour markets prevalent in the developed village vis-a-vis backward village in rural Tripura.

SCOPE OF THE STUDY

The study covers two villages, viz., Khas Madhupur (irrigated) and Ishanchandranagar (non-irrigated) in West Tripura district of Tripura state. On the one hand, it is true that this

study would not give a generalised picture of credit requirements, credit supply and linkages between different rural markets in Tripura since it is limited to two villages only. But it will give some idea regarding credit requirements, indebtedness of different size group of farmers and also prevalent linkages between different rural markets in Tripura.

SELECTION OF DISTRICT

West Tripura district is selected because it accounts the largest share of the total agricultural production among the three districts.

SELECTION OF VILLAGES

The villages for this study are selected for the following reasons: (a) to make a comparative study between a village which is exposed to modern technology and a village which is following traditional method of cultivation, (b) Khas Madhupur is mostly irrigated and Ishanchandranagar is mostly rain-fed, (c) both the villages are part of Bishalgarh Development Block which contributes largest part in the production of different crops in West Tripura district, and (d) both the villages are nearer to district headquarters which helps them to enjoy the full accessibility of different administrative set up.

COLLECTION OF DATA

The total farm households list of the two villages have been collected from village level Panchayat offices. They have been categorised into four groups, viz., landless, marginal, small and medium. A random sample of 100 households from each village comprises of different categories (according to their share in the total households list) have been selected for study. After studying the Guide to Methods and procedures of Rural Credit Survey by T.S. Rao[29], a suitable schedule is designed to collect the data personally from the selected households. To collect the relevant information, ~~the~~ questionnaire is designed to incorporate the items like land-holdings, cropping pattern, cost of cultivation, credit availability from formal and informal agencies, repayments in cash and kind, cost of different inputs and output, wage rate, rental share etc. The reference year used here is June 1994 to May 1995. Data relating to progress and position of different institutional agencies has been collected from different institutions personally but due to the absence of systematic maintenance of records it was not possible to collect data from these institutions for a long span of time, only recent datas are available.

METHOD OF ANALYSIS

To study the first objective, i.e. to find out the short-term credit requirements, we have followed the following two alternatives. One is related to farmers savings and another one is related to different components of cost of cultivation.

Alternative (i):

According to this alternative, the credit would be made available on a differentiated basis according to the savings of each size group of farmers, i.e. how much they could finance from their own sources. To work out the savings, the total expenditure (consumption) has been deducted from the gross farm income of the different size group of farmers in both the villages. Now assuming that the amount (i.e. savings) available with the farmer at the point of the start of season, we would deduct the amount from the cost of cultivation of the different categories of farmers and find out the credit requirement (Cr). In the process, credit gap if exists would be found out if the required credit is not available from any sources, e.g. formal and informal. Here the gap is found out on per farmer basis to keep the conformity in units.

$$Cg = Cr - Ca$$

Cg = Credit Gap

Cr = Required Credit

Ca = Available Credit (from institutional and non-institutional sources).

Alternative (ii):

According to this alternative, credit would be made avail-

able on the basis of different components of cost of cultivation.

(a) Credit would be made available equivalent to the full extent of cash and kind expenditure plus fifty per cent of the imputed value of family labour in the case of small and marginal farmers.

(b) Credit would be made available equivalent to 75 per cent of the cash and kind expenditure incurred (excluding the imputed cost of family labour) by the medium farmers. Here the Gap has been found out on per hectare basis.

To study the second objective, we have seen the borrowings by the different categories of the farmers from different sources, e.g. formal and informal. To see the indebted position at the end of the survey year we find out overdues position of the different categories of the farmers with institutional and non-institutional sources.

To find out the linkages, we have classified farmers in two groups, i.e. landed and landless households. Of them, how many entered into the different markets (i.e. land, labour, credit) and the terms and conditions under which they have entered into these markets have been ascertained through rental share, labour contract and rate of interest.

CONCEPTS USED

(i) Classification of marginal, small and medium farmers has been done in the following way: marginal farmers are those who have land holdings of less than one hectare; small farmers are defined as above one hectare but below two hectares, and medium farmers as above two hectares but below 4 hectares. All the pure tenants (who are near landless) and pure agricultural labourers are treated as landless farmers. Landless farmers are also treated as one size group, in this study.

(ii) Concept of cost is used as usually used in Farm business management. It includes, value of seeds (farm plus purchased), value of fertilizer and pesticides, value of manures, value of animal labour (hired + own), value of hired human labour, value of family labour (imputed at current market wage rate), and irrigation charges.

(iii) To estimate the asset position, five major assets, namely land, house (residential + farm), live stocks, farm implements and non-agricultural assets (namely, Jewellery, luxury items, Bank accounts etc.) have been considered. To arrive at asset value in monetary terms, the average has been taken with consultation with the sample farmers.

(iv) The gross farm income is estimated by multiplying

output of different farm enterprises by their respective weighted average of prices (using quantities as weights). Subsequently, by adding the value of all receipts (crops, livestock sales and by products of crop and livestocks), the gross farm income is arrived at in respect of different farm sizes under irrigated and non-irrigated villages. The estimated cost of production (i.e. cost of cultivation) is substracted from the gross farm income to arrive at the net farm income.

(v) The value of crop produced and the value of inputs used have been worked out at current market prices after cross checking the official prices with the sample farmers (see appendix for price list).

(vi) Borrowing$ is estimated as the sum of loans raised by the respondents from different sources (institutional as well as non-institutional sources).

(vii) Overdues have been estimated as the sum due to be paid at the end of survey year but till has not been paid plus interest rate attached to it.

(viii) Rate of interest paid through labour or produce have been converted to money terms after taking the corresponding wage rate and product price into account.

CHAPTERISATION

In the first Chapter, introduction is given and the problem is posed, methodology and objectives of the present study is also spelt out. The second Chapter deals with the review of literature of the study area. The third Chapter presents the progress

and position of different institutions at National level and also at state (Tripura) level. The fourth Chapter deals with profile of West Tripura district and sample villages. The fifth Chapter discusses the estimation of credit and extent of indebtedness. The sixth Chapter deals with interlinkages between land, labour and credit markets and the last i.e. the seventh Chapter presents the summary and conclusion.

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C H A P T E R - II

REVIEW OF LITERATURE

REVIEW OF LITERATURE

In this chapter, works pertaining to credit and agricultural development in India are reviewed. The review covers the different segments of rural credit, e.g. Credit requirements, supply of credit, use of credit, indebtedness of the farmers, regional disparities in Institutional Credit and interlocking between land, labour and credit market. A plethora of studies were conducted by individuals and also by Government agencies on several aspects relating to institutional credit and interlocking between land, labour and credit. The review is presented in two parts. First part deals with credit requirements, supply of credit, indebtedness and the second part deals with interlocking of credit, land and labour market.

PART I

The first major effort since independence was of Reserve Bank of India. In 1951, a committee has been set up to conduct a comprehensive rural credit survey, which is known as All India Rural Credit Survey Committee.[1] The findings of the Committee confirmed the dominant position occupied by the money lenders in the system of rural credit. The total borrowings of the cultivators for the country as a whole for the year 1951-52 were estimated at Rs.750 crores.

Reserve Bank of India also conducted rural credit follow up survey in 1956-57, 1957-58, 1958-59 and 1959-60,[2] in some selected districts of various states. The major objectives of these studies were to make an actual assessment of the working of different types of co-operatives in general and the implementation of the Integrated Rural Credit Scheme in particular. The major findings of these Committees were, (i) the development of co-operative was uneven among the selected districts, (ii) Co-operative proved to be the largest single source of credit, (iii) repayments were reported by a sizeable section of the families generally in all the selected districts, (iv) the average debt per family increased over the survey year in all the districts which was by and large due to the greater spread of indebtedness.

In 1966, the Reserve Bank set up the All India Rural Credit Review Committee[3] in order to reassess the developments that had taken place in the field of rural credit since 1954. The review committee submitted its report in July 1969. The major recommendations of the Committee were (a) Short term Production Credit should not be made dependent on the borrowers ability to provide mortgage and therefore there should be no unduly low ceilings on the amount which may be provided against personal securities, (b) Establishment of two new organisations, viz., the Rural Electrification Corporation for financing rural electrification and the Small Farmers' Development Agency (SFDA) designed to identify the problem of small but potentially viable farmers and to ensure that agricultural inputs, services and credit were made available

to them.

In 1979, at the instance of the Central Government, one Committee was set up under the chairmanship of B. Sivaraman to review arrangements for institutional credit for agriculture and rural development (CRAFICARD).[4] The Committee found that the basic cause of rural poverty was the poor resource base of the rural poor. The Committee was clearly aware that the danger of credit becoming a burden, instead of an instrument for the uplift and they suggested that it is necessary to do a proper identification of the beneficiaries, activity-wise and area-wise and then proceed to work out tailormade loan according to the needs of the specific areas and specific target groups. It recommended that at the national level, all the co-operative institutions as well as the commercial banks should have been taken under the National Bank for Agriculture and Rural Development and also recommended the integrated approach to rural development.

In 1986, the Agriculture Credit Review Committee[5] chaired by A.M. Khusro was set up by the Reserve Bank of India in pursuance of an agreement between the World Bank and the Government of India. The Committee submitted its report in August 1989. The Committee recommended (i) a re-determination of lending rates except for the re-defined priority sector borrowers subject to the ceiling of 15.5 per cent rate of interest, (ii) the merger of RRBs into the sponsor commercial banks in view of their intrinsic weakness and built-in non-viability, (iii) the creation of a National Co-operative Bank to function as the national apex bank

for all Co-operatives to provide leadership in banking operations to the state level apex institutions in the Co-operative sector and operate as a balancing centre at the national level, (iv) the continuance of directed lending for agriculture but suggested that concessional interest rates should be applied only to small and marginal farmers and that the rates applicable to loans for other farmers be stepped up within the ceiling of 15.5 per cent rate of interest.

In 1991, the Government of India set up a Committee[6] (chaired by M. Narasimham) to review the financial system. The Committee recommended the following measures to review the viability of the financial system, (a) elimination of concessional lending rates even for the priority sector and for Government sponsored programmes like IRDP, (b) setting up of rural banking subsidiaries by the public sector commercial banks which should combine the local character of RRBs and the resources, skills and organisational managerial abilities of commercial banks to take over the rural branches of commercial banks and where the RRBs and the sponsor bank so desire, to take over the RRBs as well, (c) those RRBs that wish to maintain their identity may be allowed to do so with a focus to redefined target group to maintain at a minimum the present level of lending to target group, (d) the phasing out of all directed lending on the ground that the growth of agriculture and small industry has reached a stage where their credit needs can be judged on the basis of bank's commercial viability.

Subrata Ghatak[7] has made an attempt to study a very impor-

tant segment of the Indian economy, the rural money market. The major objectives of the study were (a) to investigate the nature, composition and working of the organised and unorganised money markets in the Indian rural economy, (b) to examine the factors affecting the demand side of the agricultural credit, (c) to analyse the nature and determinants of rural interest rates, and (d) to specify the existing links between the dual money markets. The study is presented in eight chapters. The analysis part of his study depends upon data from various sources, e.g. All India Rural Credit Survey 1951-52, Rural Credit Follow up Survey 1956-60, All India Rural Debt and Investment Survey 1961-62.

The major findings reveal that Indian rural money market has a distinctly dual character and it was divided between organised and unorganised sectors. This dichotomy leads to the presence of a rudimentary and un-organised sector which in turn deprived the society of an array of financial assets, with which savings could have been more effectively tapped and transferred into investment for the purpose of raising the rate of growth. He found the significance of different variables affecting borrowing and indebtedness in both 1951-52 and 1961-62, which revealed that the main explanatory variables of borrowings and loans outstanding appeared to be capital and family expenditure for both 1951-52 and 1961-62 and in most cases capital was the most significant variable affecting the demand side. It is clear in his study that the primary credit societies failed to mobilise internal resources and increasingly dependent upon external sources.

In his book, "Agricultural Development, Rural Credit and Problems of its Recovery", Ranga Reddy[8] made an attempt to evaluate the problems of overdues on the basis of a micro level study of primary agricultural credit societies in Guntur district of Andhra Pradesh during the period 1975-82. The main objective of the study is to find out the major trends in the magnitude of overdues in twenty selected PACs of Guntur district covering one hundred and ninety two defaulters. The findings from his study reveal that institutional credit and farm size are positively related in the district. In the context of overdues, he found that the incidence of overdues was higher in commercial banks followed by co-operatives and regional rural banks. Of the other observations, the important were the incidence of defaulters is higher for medium term loans than for short term loans, the incidence of overdues is higher in the case of big farmers as compared to small farmers and there are considerable regional variations in terms of membership, borrowings and default. To overcome the perennial overdues problems the author suggested the following steps (i) charging differential rates of interest on wilful defaulters, (ii) streamlining the management and strengthening the supervisory staff, (iii) re-structuring of working capital and (iv) prompt legal action for improving the recovery.

In the book "Co-operative Societies and Rural Development", Mr. S.K. Dutta[9] tries to examine the performance of five Goan Panchayat level Samabay (Co-operatives) Samities (GPSS) of Dibrugarh district, Assam. He has discussed the social bases of GPSS

leaders, politicisation and vested interest in GPSS, the role of GPSS in rural development and constraints faced by the GPSS in the process of their growth and developmnent besides giving an overview of the co-operative movement in Assam. Content-wise the book is divided into eight chapters. The study is based on the performance of the five smaple GPSS for 1982-83, 1983-84 and 1985-86. Main findings of the study show that the criteria of social bases of the GPSS leaders, e.g. age, high caste, land holdings, income, occupation is on the decline and being replaced by the factors like education, social participation, political background etc. He found that politicisation of vested interest through giving paid emplo_ment to near relatives, granting liberal loans and non-recovery of overdues by concealing the truth were not noticed in these five GPSS. The author identified some constraints faced by the GPSS, e.g. poor infrastructure, absence of effective flood control measures, inadequate number of bank offices, etc. He suggests that to improve the quality of the management of the society, no elected representative for the office of Chairmanship or Vice-Chairmanship should be allowed to assume their office without necessary training.

S.R. Mehrotra[10] in his book "Institutional Credit and Agricultural Growth" (with special reference to the needs of small farmers) tries to deal with how credit use has been instrumental in promoting the growth of agriculture in a state like Rajasthan with semi-arid and arid climate. The period of reference used in his study was pre-green revolution period (1956-57 to 1964-65) and green revolution period (1965-66 to 1973-74). The author

examined the production and consumption credit needs of small farmers. Linear programming was used to estimate the optimal short-term production credit. He tried to substantiate the hypothesis that preponderance of small farmers in a district does have a depressing effect on the performance of primary agricultural credit societies. He found that production credit requirement were higher in the Rabi than in the Khariff season. Credit availability was found to be a constraint on most farms in the study area. He also observed that if the returns to fixed farm resources are to be maximised with the adoption of new technology, more institutional credit should flow to the agricultural sector than hitherto.

In his book "Agricultural Finance in a Backward Region"[11] Kurulkar specifically deals with the problem of regional imbalances in the agricultural sector. The major objectives of his study were to assess the financial feasibility of investment made by the cultivators in a backward region and to measure the repaying capacity of the cultivators who invested their borrowed funds in the construction of wells or to purchase pump sets and tractors. The study area was twelve talukas of Aurangabad district. The reference year was 1970-71. Findings reveal that of the total credit advanced by co-operative land development bank, the loans for tractors were highest followed by sinking wells and pump sets. He found that this expenditure was highest for small farmers and then medium and large farmers. It is also found that the large farmers' group has enjoyed the largest amount of credit per cultivator among three groups and large percentage of sample

cultivators had obtained short-term loan from village money lenders. He examined the repaying capacity of the farmers separately for different projects which has shown negative sign in the case of farmers who invested it in well and pumpsets while he found it as positive who invested in tractors. He suggested that the credit which is disbursed to the cultivators through various agencies should be routed through the village credit societies which he thinks that not only benefit the cultivators but also reduces the administrative burdens of these societies.

Desai and Namboodiri[12] in their book "Institutional Finance for Agriculture" examines the performance of rural financial institutions by analysing the data for the period 1960-61 to 1980-81. The study covers the three-tier co-operative financial institutions, co-operative land development bank, scheduled commercial banks, regional rural banks and rural electrification corporations. The study infers that rural loans and deposits each as percentage of agricultural output and value added has continuously improved during the study period. The investment was more for rural deposits than for rural loans. The authors are of the view that the former reflects the financial deepening of the rural sector and the latter reflects the proportion of agricultural output and net domestic product, financed by institutional loans. They found the annual compound growth rate was over 18 per cent for rural deposits, 13 per cent for rural loans and 12 per cent for agricultural loans. The authors have tried to show that institutional rural finance system operations have encouraged agricultural output and net domestic product per

hectare. They found that there is positive association between these two separately, with various operation of Institutional Rural Finance System such as banking infrastructure, rural deposits, different types of loans of agricultural credit societies. The study also revealed that all financial institutions except PACs prevailed under constant return to scale in their transaction costs during all the years under reference.

Singh and Mruthyunjaya[13] in their paper "A Study on Cost of Short-term Credit for Small and Marginal Farmers of Aligarh District in Uttar Pradesh" made an attempt to examine the requirement, availability and cost of short-term agricultural credit from different lending agencies. The study is conducted in six villages of two blocks in Aligarh district. The major findings of their study are, one, in the case of variable crops the sample farmers could provide 69 per cent as owned funds and larger need of borrowed funds are for crucial inputs like machinery, irrigation and fertilizer. Two, institutional agencies supplied 50 per cent of the total required credit and 25 percent supplied by non-institutional sources. Three, in the case of cost of short term agricultural credit they found the speed money and opportunity value of time spent for obtaining loan constitute a considerable amount apart from interest rate.

Singh[14] in his study of "Supply of Farm Credit in Relation to Its Requirements to Small Farmers" tries to estimate the credit needs of small and marginal farmers and to examine the credit supply of different financing institutions in the context

of modern credit policy. It is based on a study conducted in Nainidenda block of Pauri Garwal district in hill region of Uttar Pradesh. He found that there is a large credit gap on both the categories of farms due to inadequate supply of credit from all sources as against their credit requirements. Co-operatives are main sources of agricultural finance in the study area. No nationalised bank so far came forward to advance agricultural loan to the farmers. The institutional agencies, particularly the commercial banks are yet to play a vital role in financing agriculture in this area.

Kaliaperumal and Loganathan[15] in their paper "Agricultural Credit in Elakurichi Village - A Micro Analysis" examines the credit requirement and credit gap of a village. The study is conducted in Elakurichi Village of Ariyalur block in Trichy district. The major objectives of their paper are (a) to find out cost of cultivation, credit requirement and credit gap of the village, and (b) to ascertain the performance of the financing agencies in the field of agriculture. They found that the institutional agencies supplied 80.99 per cent of the total credit requirement considering that 10 per cent of the total cost and 25 per cent of the total cost can be met by small and large farmers, respectively. They estimated the credit gap as 5.95 per cent of the total credit requirements. They have cited some reasons for this gap, e.g. supply of less than required level of credit, farmers ignorance about the optimum use of modern technology, farmers difficulties in complying with the procedures and formalities, etc.

Cheema and Sankhayan[16] in their study made an attempt to estimate the credit requirements of various sizes of farms at varying level of risks. The study has been conducted in the state of Punjab after dividing it on the basis of homogeneity in respect of cropping pattern, soil type and rainfall. The study found that the additional credit requirements of farms were relatively much higher in the Khariff season than that of Rabi season. The findings show that there was no relation between per hectare short-term capital needs and size of the farms. One interesting observation made by the authors was that the maximum credit limit of Rs.3750 per hectare per annum fixed by the banks/Government in respect of short-term agricultural credit is around the same as estimated in this study for the capital needs of different farms without any consideration of risk element. They opined that despite best efforts by the institutions, performance may not be entirely satisfactory of these institutions.

Desai[17] in his paper deals with institutional credit requirements for agricultural production by 2000 A.D. This study gives an overview of the institutional credit supply in the past and tries to estimate the future credit requirements for agricultural production. Findings show that the co-operatives which were the major suppliers of short-term credit before the entry of commercial banks have receded to some extent and comercial banks' share rose from 16.31 per cent in 1974-75 to 35.85 per cent in 1984-85. He found that the financial requirements for short-term

credit C_1 (cash and kind expenditure of crop production) would rise from about Rs.29,500 crores in 1984-85 to Rs.49,000 crores in 2000 A.D. and of that of C_2 (cash and kind expenditure plus imputed family labour cost) from Rs.36,000 crores to Rs.60,000 crores in the corresponding years. It is found that credit supply in 1984-85 formed only 11.57 per cent of the credit requirements. In his concluding remarks he suggested that the credit requirements for agriculture should take into account not only the credit needs of the agricultural production sub-system as is done presently but also of the whole agricultural system.

Ray[18] tries to estimate the amount of credit supplied by different agencies to small, medium and large farmers, the normative demand for credit in different size groups and the gaps in demand and supply of credit to small, medium and large farms. He conducted his study in two villages in Mogra Block of Hoogly district, West Bengal, during the year 1983-84. Findings reveal that the level of credit supply from all sources on small farms is inadequate for the optimal allocation of limited farm resources. To increase allocative efficiency and to use the best of modern technology, the supply of credit on these farms should be increased to almost twice the present level. He opined that failure to supply adequate institutional credit will lead either to slower adoption of modern technology or increasing dependence by the small farmer on unscrupulous private money lenders. He found that the average net return per rupee of working capital is significantly higher on small farms than on medium and large farms, so any programme for the development of the farming commu-

nity should therefore give preference to small farmers.

In his study, K. Subba Rao,[19] analysed the relative share of different size groups in the total amount of co-operative credit and bank credit separately in different states of the country. He found that in the case of short-term co-operative credit disbursed over the period 1971-72 to 1975-76 to small farmers (below 1 hectare), their share remained constant or declined in Andhra Pradesh, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala and Rajasthan, in some states like Orissa, the corresponding share of the small farmers has increased from 17.5 per cent in 1971-72 to 19.5 per cent in 1975-76. In the case of bank credit, the findings show that even though in all the states absolute amount of advances by commercial banks increased during the period 1969-1977, inter-farm size inequalities are found to be existed.

Balishter and Roshan singh,[20] in their study tried to examine the extent of credit available to different categories of farmers from institutional and non-institutional sources, credit gap existing between requirement and availability and also to study the level of income and savings of farm families and the extent of mobilization of the savings by the financing institutions. The study was conducted in four villages of Bichpuri block of Agra district in Uttar Pradesh. The results show that the farmers borrowing from commercial banks were only 17 per cent and almost all these borrowers also borrowed from co-operatives. The availability of credit from commercial banks per hectare was

higher in the case of marginal farmers and small farmers when compared to medium and large farmers. It was found that credit gap was less in the case of marginal and small farmers as compared to medium and large farmers. They found that diversion was more in case of small and marginal farmers. In the case of savings they found that marginal and small farmers have hardly any surplus, while in case of medium and large farmers the surplus amounts to about 27 to 29 per cent of total family income.

//Venkata Reddy and Subbarami Reddy[21] in their paper make an attempt to examine the extent of bank branch expansion, the availability and requirements of credit and assesses the existing gap in agricultural credit. They have conducted their study in Cuddapah district of Rayalaseema region in Andhra Pradesh. The major findings of their study are (1) the inequality exists in the distribution of bank branches among different areas. (2) there is substantial gap between credit requirements and credit supply. The credit gap was found to be 18.37 crores, assuming that one-third of the total cost of cultivation is met by own funds of the individual farmers at the district level. They also suggested that weightage should be given to drought-prone areas like Cuddapah and credit should be extended on preferential terms both in regard to interest charge and quantum of advances.

Sarkar, Mitra and Mukherjee[22] in their study made an attempt to witness how far institutional agencies have acted towards the benefit of farmers in developed and underdeveloped areas in the district of Nadia, West Bengal. The study is conducted in four

villages (Two developed and two underdeveloped villages) during the period 1983-84. Findings show that both in developed and underdeveloped villages, financial institutions provide an insignificant amount of loans. It is found that marginal and small cultivators of both developed and underdeveloped villages obtained relatively larger proportion of their short-term credits from co-operatives while the big farmers are relatively more dependent on banks for short term credit in both developed and underdeveloped villages. They have suggested that commercial banks, co-operatives and Government institutions should cover more number of small and marginal farmers by relaxing the existing norms and terms for supplying credit.

In their paper "Economic Evaluation of Co-operative Credit in Indian Agriculture" Pandey and Kumar[23] aim at examining the nature and growth of co-operative credit in different states and also the disparity in the disbursement of co-operative credit to different category of holdings. The study is conducted for the period 1970-81. Findings show that the growth rates of state co-operative banks were positive and statistically significant in all the states except Gujarat. They found that in most of the states the growth rate of medium term credit were higher than that of short-term credit with exception of Bihar, Maharashtra, Punjab and Tamil Nadu which indicates that farmers have taken more credit for investment purposes in these states. It is observed that per hectare credit availability on small and marginal farms together was higher than on farms above 2 hectares almost in all states. They also found that the disparity in the

distribution of per hectare co-operative credit has increased in both categories of farmers, as well as total credit during the period 1977-78 to 1983-84. It is found from their study that the important factors affecting the flow of credit in different states include use of fertilizers, area under high yielding varieties and irrigation.

In his paper Satya Sai[24] seeks to examine the flow of agricultural credit with reference to inter-farm sizes bias of formal credit agencies. He conducted his survey in the Ganapavaram block of West Godavari district of Andhra Pradesh. The important findings of the study reveals that (i) 86 per cent of the credit supplied by the Institutional sources and 14 per cent supplied by the non-institutional sources, (ii) Institutional credit is sufficient enough to meet only 41 per cent of the short-term demand of the marginal farmers, it is 63 per cent in the case of small farmers, while it is 21 per cent and 96 per cent in excess of requirements in the case of medium and large farmers, respectively, (iii) it is found that the smaller the farm size, the greater is the extent of diversion of credit from the original scheme for which it is sanctioned. The author suggests that there is a need for re-directing of loan funds going to the large farmers to the small farmers.

Varde[25] in her study "Quantitative Dimensions of Rural Banking" made an attempt to analyse the quantitative trends of commercial bank performance in rural areas since nationalisation of banks. It is found that proportion of rural branches in

North-Eastern, Eastern and Central region is gradually increasing, whereas that in Northern, Western and Southern regions, it is gradually decreasing. Other major findings of her study reveal that (i) the fastest fall in population served per branch was in the eastern region followed by that in the central region and north-eastern region, (ii) region-wise break up of rural deposits indicate that during the past two decades there has been a significant drop in the share of Western region's deposits and there is a gradual drop in the share of Southern region's deposits. Share of Northern region has remained more or less constant, whereas the share of North-Eastern, Eastern and Central regions have gradually gone up, (iii) trends in rural credit reveals that the share of Northern, North-Eastern, Eastern region, Central region has increased, while Western and Southern regions share has decreased. The author observed that the need of the day is that rural banking must not only quantitatively expand but must become a viable and commercial proposition leading to the true development of the rural sector of the Indian economy.

Yeshwanth[26] in his paper aims to throw some light on the functioning of the State Co-operative Banks in the North-Eastern region. He has used 1982-83 as reference period in his study. The major findings of his paper show that (i) the membership of the societies varies widely from as low as 50 per society in Arunachal Pradesh to 3000 in Assam, while in the remaining regions, it is between 3000 in Meghalaya and 1200 in Tripura, (ii) Financial resource position shows that the deposits of the Apex Bank in Assam alone accounts for more than sixty per cent of the

total deposits tapped by all the SCBs in the region. Next to Assam, the Apex Bank in Meghalaya has done good work in the mobilisation of deposits as compared to Manipur, Nagaland and Tripura, (iii) the demand for crop loans is very much on the low key in this region because of prevalence of traditional way of farming, (iv) it is found that total disbursemenbt by the apex banks during 1982-83 was in the order of around Rs.150 lakhs, which was found too low taking the fact that 60 per cent of the rural population live below the poverty line, (v) the banks were found shy in extending farm credits because of heavy overdues. He suggested that effective co-ordination between the financing institutions and governmental agencies is an essential precondition for the successful implementation of development banking.

Surya Kumari[27] in her paper "Impact of Credit on Agricultural Output Among Scheduled Tribes - An Econometric Analysis" made an attempt to examine the impact of the amount borrowed on the value of output produced and the impact of the borrowed funds used for productive purposes on the value of output. The study was conducted in tribal villages of the Visakhapatnam district in Andhra Pradesh. She found that although amount borrowed is able to explain the variation in output to some extent, the other variable relating to credit, namely productive use of borrowed funds is not able to explain variations in gross output in less developed villages, on the other hand, in the developed region these two variables are not able to explain variations in output. Land input co-efficient was found to be negative in the developed region and positive in the case of less developed region. Ex-

penditure on fertilizers, area under commercial crops, area irrigated and working capital expenditure explain significantly the variations in output in both the regions.

Pandey and Muralidharan[28] in their study tried to examine the overdues position among different size of holdings. They conducted their study in Banda district of Uttar Pradesh. The study found that the number of defaulters was higher in marginal and small farmers as compared to the medium and large farmers, while the share in the total amount of overdues was much lower as compared to the medium and large farmers. Findings show that most of the defaulters were wilful defaulters and they mainly belonged to upper caste, literate group and large farmers, whereas the non-wilful defaulters belonged to the middle class, illiterates and lower size groups. They also found that among different categories of defaulters, medium and large farmers were prominent with overdues of three years and more.

In their study, Naidu, Reddy and Prasad[29] made an attempt to analyse the socio-economic characteristics associated with defaualters and non-defaulters. They made their study in Guntur district, Andhra Pradesh in the year 1982-83. Findings revealed that the higher the level of education, the nearer to credit society and increase in size of holding, the higher the amount diverted from stipulated purpose and higher the probability to become defaulters and vice-versa. They found that higher amount borrowed, dependence exclusively on agriculture, higher annual gross income from agriculture, increased level of family consump-

tion and increased level of income from sources other than agriculture, the probability to become non-defaulter was higher and vice-versa. They suggested that institutions engaged in financing agriculture should take care and caution of the socio-economic characteristics associated with the defaulters while disbursing loans.

Patel[30] in his paper "Recovery Performance of Direct Agricultural Advances of Scheduled Commercial Banks", made an attempt to study the recovery performance of agricultural advances given by Commercial Banks, extent of utilization of bank finance by farm size group and also to identify the major causes of over-dues. The study is based on primary data, collected from Surendranagar district of Gujarat and secondary data published by the RBI. The study reveals that in majority of the states, the recovery level has remained below fifty per cent of demand. The important reasons identified by author for poor recovery were defective assessment of crop loan, mis-utilization, diversion of income generated. He found that of the total defaulter farmers 83.33 per cent were for the crop loan and rest 16.67 per cent were unable to repay the dairy loan instalments. The study revealed that borrowers have diverted bank loans for household consumption (21%) followed by repayment of old debt (13.2%), and social expenses (9.9%). The author found that the proportion of defaulters was larger in case of farmers with unirrigated farms and using hired private irrigation facilities than that of either owned or public irrigation facilities.

Singh and Chatha[31] in their paper "A Study on Magnitude of Farm Credit in India" made an effort to examine the extent of indebtedness, to analyse the relative contribution of different credit agencies in the total farm credit and also to examine the extent of overdues. They have conducted their study in six districts of Punjab. The study revealed the following facts (i) out of the total, 91.46 per cent farmers had to depend upon credit, (ii) about 69 percent of the loans taken by the farmers during 1987-88 were crop loans. Next to it was consumption loan (10.49%), (iii) the borrowing during 1987-88 was estimated as Rs.8717 per loanee farmer and Rs.7973 per sample farmer on the overall basis, (iv) the most important source of credit was co-operative which advanced 55.75 per cent of the total loans taken by farmers and (v) the problem of overdues was not observed barring a few cases where payments of loan instalments were delayed owing to crop failure or some social obligation.

In his paper "Dimension of Regional Disparities in Institutional Credit to Agriculture" Dadibhavi[32] made an attempt to examine the dimensions of regional disparities in institutional credit to agriculture. The major objectives of the study are to analyse the regional disparities in the disbursement of institutional credit to agriculture and to analyse the distribution of credit according to the size of holdings of the borrowers. The study reveals the following facts (i) region-wise distribution of loans during 1976 and 1984 show that short-term loans are more unevenly distributed among the regions than medium/long term loans in both the years. In the case of short-term loans, four

states of Southern region accounted for nearly 73 per cent while Central region, consisted of 27 per cent of the total cropped area, got only 4.6 per cent during 1983-84 (ii) commercial banks credit to agriculture has encroached on states where the co-operative movement in strong and vice versa, (iii) of the total outstanding credit of both commercial banks and co-operatives, a larger share of term finance has gone to the borrowers with holding of more than five acres, while a large share of short-term credit went to the borrowers with holdings less than five acres. He suggested that commercial banks still go to the areas where co-operatives are strong provided they play a complementary role in the distribution of different ccmponents of rural credit.

PART II

Bardhan and Rudra[33] in their paper "Interlinkages of Land, Labour and Credit" examined some of the conventional ideas relating to agrarian relations, viz., idea of semi-feudalism. They have studied nearly 275 randomly chosen villages in three regions, Viz., Bengal, Bihar and the Eastern districts of Uttar Pradesh. The primary focus of the study was on land, labour and credit contracts. They have divided the selected village into three categories, (a) advanced, (b) moderately advanced, and (c) backward on the basis of irrigation and technology prevailed in those villages. They found that in almost all villages money lending is not the principal occupation of money lenders and evidence in Eastern India is quite contrary to the hypothesis of the theorists of semi-feudalism who believe that in the landlord

tenant relation usury dominates as the mode of exploitation and the lanlord consideration of usurious income from the indebted tenant hamper the farmers' incentive to encourage production and productive investment. They found that in some cases landlord advances loan to the tenants for production purpose were without any interest. They also negated the idea that bonded labour is absent in Eastern India and told that it is illegitimate to say the least. It is evident from their study that the economic constraints faced by the small share cropper or the attached labour are much more severe and they frequently push him into unequal relationship of mutual dependence with landlord-creditors-employer.

In their paper "Interlinked Transaction in Rural Markets - An Empirical Study of Andhra Pradesh, Bihar and Punjab" Bell and Srinivasan[34] made an attempt to examine the interlinked transactions in rural market. A detailed empirical investigation is carried out in 34 villages of Andhra Pradesh, Bihar and Punjab. Findings indicate that interlinked transactions have a prominent place in the surveyed areas. In several respects, these findings run counter to existing conventional wisdom. Firstly, contrary to the idea of remnants of an old agrarian order, interlinkages between land, labour and credit are flourishing and most pervasively in Punjab whose agriculture is supposed to be most commercialised. Secondly, the dominant form of interlinking in Punjab involves fairly affluent farmers with a marketable surplus to sell and the urban traders and commission agents who finance them, a feature which is shared by the more commercialised area

of Andhra and Bihar. Thirdly, while interlinkages between credit and tenancy and labour are certainly in evidence in the more backward areas, the extensiveness of these arrangements will hardly support the claim that usury is the dominant form of exploitation in a semi-feudal mode of production. Their findings also suggest that the emphasis on credit-tenancy interlinkages in the theoretical literature is misplaced.

Sarap[35] in his paper deals with the transactions in rural credit markets in Western Orissa. This paper examines three aspects of rural credit markets, viz., the pattern of participation of different classes of farm households; types of collateral offered and rate of interest charged on different types of collateral. The study has been conducted in six villages of Sambalpur district of Orissa, during 1981-82. Results from the study indicate that (i) the poorer farm households have no satisfactory access to the formal credit markets by contrast the participation of medium and large farmers in the formal market is very high and they have obtained a lion's share of the institutional credit, (ii) borrowing from informal sources are put in uses for a variety of purposes, about half of loans procured by marginal farmers were used in production while it is 28 per cent in the case of small farmers, in contrast to this the medium and large farmers allocate most of the informal loan for social purposes followed by medical purposes. It is found that the relatively rich has access not only to greater credit but also to cheaper credit, thereby perpetuating or even accentuating rural inequality. He suggested that the policy would have to be directed towards

reducing the dependence of the rural poor through raising their purchasing power by provision of easy access to institutional credit both for production and consumption purposes and raising their income through increasing the productivity of their land and employment in non-agricultural sector.

Chattopadhyay and Bhattacharya[36] in their paper "Land, Labour, Credit Relations in a Peasant Belt", made an attempt to examine the interlinkages in terms of a comprehensive framework of land, labour and credit relations. The study is based on a socio-economic survey in a frontier region of Silliguri sub-division in West Bengal. Major findings of their study show that (i) tenancy was not the predominant feature of the agrarian structure in this region. An interesting feature, they found, was that, the small land owners who lease out land to a larger extent compared the total land letting out cases, contrary to the popular belief that the incidence of letting out land by the small farmers is negligible, (ii) the majority of the tenants (63 out of 69) are either landless or marginal peasantry have poor asset base in terms of ownership of landholding, which left them with poor bargaining power vis-a-vis their landlords, (iii) the 50:50 crop sharing arrangement not only assures a better share of the produce for the landowners but also provide them with an opportunity to enter into the credit market for higher profit, (iv) generally, the landowner, when he happens to extend credit, does so only to his own tenants and refrains from extending any credit even to his labourers. So being linked in the production process, he made himself out of userer community.

Mohapatra[37] in his paper "Land, Labour and Credit Market interlocking - A Study of Orissa Agriculture" studies the consequences of land-lease interlocking and the underlying tenants' exploitation on their production performance and economic conditions. The study is conducted in four villages, two from agriculturally progressive areas and two from agriculturally backward areas in Orissa. The major findings of his study are as follows: (i) between interlocked tenants and free tenants, there are rarely any difference in respect of average yield rates, average use of new inputs and implicit family labour cost per acre cropped in both the areas and the difference between production elasticities are statistically not significant, either in the irrigated villages or in the unirrigated villages. In this background he argues that interlocking lease arrangement do not seem to adversely affect their production performance, (ii) Regarding economic status he found that the per capita income and per capita consumption expenditure of the interlocked tenant house-holds are relatively much lower than those of untied tenants. He also found that the incidence of poverty is relatively much high for the interlocked tenants. He also suggested that the economic status of tenant cultivators can be improved by providing them adequate irrigation facilities along with regulated tenancy operation.

In his paper "Exploitation and Interrelated Tenancy and Credit Transactions", Chandrasekhar Pant[38] presents a model,

which explores some of the consequences of interlinked land and credit transactions in the context of market imperfections. He substantiates his model with the help of some theoretical and empirical work in this area. The main results he draws from his model are as follows: (a) Having monopoly power in both the land and credit market, the landowner may not always prefer interlinked transactions, (b) Interlocking does not lead to 'exploitation' through high interest rate on consumption, (c) Restriction on the landlords power to set the interest rate on loan has no adverse impact on the landlord's welfare provided he retains the power to set the rental share from the tenancy contracts, (d) The landlord will not discourage the use of better technology as the technology change will always benefit the landlord. He concludes that while interlinkages of various kinds are observed, in rural economics, they are not always exploitative.

Ravi Srivastava[39] in his paper "Interlinked Modes of Exploitation in Indian Agriculture during Transition - A Case Study" argues that the interlocked relationship arises out of a prior set of production relationships and the strategies of subsistence or accumulation of different classes. He examines his argument on the basis of a study conducted in three villages in Uttar Pradesh including both the backward and agriculturally dynamic villages. Findings are distributed in four parts, viz., (a) lease transactions and associated interlinkages, (b) credit transactions and their associated interlinakges, (c) farm servants and the nature of their interlinkages, (d) debt-induced interlocking. Findings show that the important credit relation-

ships are production credit relationships and there is an association between class status and rental and cost shares for the tenant. In the case of credit linkages, he found that a large portion of repayment took place in terms of undervalued labour services in the developed village, while in the backward village it was through agricultural produce at source. The author observes that interlinkage facilitates the appropiration of surplus in more than one market by surplus appropriators and may restrict mobility for the weaker classes.

M.V. Narayan Reddy[40] in his paper "Interlinakges of Credit with Factor and Product Markets". makes an attempt to find out the incidence of different types of linkages prevalent in the developed village and backward village. The paper is based on a study conducted in two villages of Guntur district in Andhra Pradesh. Findings of the study reveals that incidence of interlinked transactions is less in the developed village compared to the backward village. He found that 50 per cent of the total credit transaction cases in the developed villages involve labour and it constitute one-fourth of the total informal credit and 50 per cent of cases involve cash constituting three-fourth of the total informal credit. Similarly, in the backward villages 58 per cent cases involving input market constitute 62 per cent of the total credit, while input to output and cash to cash constitute 25 per cent and 13 per cent of the total informal credit, respectively. He also observed that informal interlinked credit transactions in the developed village are advantageous to the weaker section of the developed village.

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C H A P T E R - III

PROGRESS OF INSTITUTIONAL FINANCE IN AGRICULTURE

PROGRESS OF INSTITUTIONAL FINANCE IN AGRICULTURE

This chapter is divided into two parts, Part-A discusses the progress and position of Institutional Finance and its contribution in Agriculture at national level, Part-B discusses it at state (Tripura) level.

PART - A:

PROGRESS AND POSITION OF CREDIT INSTITUTION IN INDIA:

In India, organised sector of credit financing agriculture consists of Co-operatives, Regional Rural Banks (RRBs), Commercial Banks and National Bank for Agriculture and Rural Development (NABARD).

A. Co-Operatives:

Co-operation means working together for a common purpose. Rural credit picture in British India was characterised by minimum presence of organised credit and domination of private money lenders, traders, etc. With the emergence of national movement, people started some constructive programmes for the economic and social development. In this regard, the starting of co-operative era from 1904 was a step forward to free the rural people from the crunch of money lenders. It has been started as a means to reach the last man in the last village.

The co-operative structure in India consists of two parts, one engaged in short and medium term credit and the other in long term credit. The short and medium term credit is a three-tier structure and the long term credit is two-tier.

Short and Medium Term Credit:

(a) Sate Co-operative Bank

In the three-tier structure, State Co-operative Bank occupies the apex position. It acts as a final link between the small primary credit societies on the one hand and the general money market, the Government and the Reserve Bank of India on the other. All the District Central Co-operative Banks in the state are its members. It pools the resources and re-distribute the surplus of one primary society to meet the deficiency of another to the advantage of total co-operative system.

Table 3.A.1 shows the progress of State Co-operative Banks in India. At the end of 1992-93, there are 28 State Co-operative Banks are operating with a deposit of Rs.8595 crores, an increase of four-fold from 1980-81.

Table 3.A.2 presents the flow of co-operative credit to agriculture. It reveals while the short term credit maintains a steady rise, term credit has reached its peak in 1987-88 and then took a downward trend. In 1990-91 total credit stood at Rs.5392 crores, an increase of two and half fold from 1980-81.

b) District Central Co-operative Bank

The District Central Co-operative Bank stands at the middle in the structure. They are maintaining the link between the primary societies at the village level and State Co-operative Bank at the top. The resources of the primary societies are inadequate, so in the early phases of the movement it has been realised that the primary societies should be federated into some financial union. But unfortunately, there was no provision in the Act of 1904. The Act of 1912 made provision for registration of the District Central Co-operative Banks. The progress of Central Co-operative is given in Table 3.A.3. Table reveals that during 1980-81 to 1990-91, the number of District Central Co-operative Banks has increased from 337 to 354 and loan issued also increased from Rs.3211 crores to Rs.11122 crores in the same period.

c) Primary Agricultural Credit Societies (PACS)

The Primary Agricultural Credit Societies (PACS) forms the base of the three-tier co-operative structure. These societies started their operation from 1904. The main functions of these societies are to advance loans to farmers and other categories of rural people to purchase farm inputs, to start subsidiary occupation and also to supply farm inputs such as new seeds, chemical fertilizers, insecticides, spray pump etc. Although these societies achieved remarkable performance since planning era, the

rural credit review committee (1969) found that the societies which are having direct contact with agriculturist and therefore, are the basic unit of the co-operative structure formed the weakest link in the chain of three-tier co-operative structure. The committee recommended that a re-organisation programme to be undertaken with a view to make primary societies strong and viable units.

The progress of Primary Agricultural Credit Societies (Table 3.A.4) shows that the membership in Primary Agricultural Credit Societies has increased from 575 lakhs to 801 lakhs during 1980-81 to 1990-91. The loans advanced also increased substantially from Rs.1745 crores to Rs.4679 crores during 1980-81 to 1990-91.

Long Term Credit:

d) <u>State Co-operative Land Development Bank (SCLDB)</u>

In the early phase of co-operative movement the long term credit requirements of farmers were met by co-operative through village level societies and Government. But these agencies were found ineffective to meet the needs of the farmers, on the recommendation of Maclagan Committee (1915), the Royal Commission of Agriculture (1928) and the Central Banking Enquiry Committee (1929), a separate agency under the name of "The Land Mortgage Banks" established in India under the Co-operative Societies Act of 1915 to provide long term loans,[1] viz. for the purpose of bringing about some permanent improvement on agricultural lands

such as construction of a tank or a tube well, purchase of heavy machinery like tractor or establishment of some small scale industries.

The structure of Land Development Banks are not uniform in nature all over the country. In some states, e.g. Andhra Pradesh, Assam, Haryana, Kerala, Karnataka, Punjab, Orissa, it is federal. The Land Development Banks are operative at the state or apex level and affiliated with primary LDB at the base level.

In some states, e.g. Bihar, Gujarat, Maharashtra, Tripura, Uttar Pradesh, the structure is unitary, under which the apex level bank is operating through branches at lower level.

The progress of Land Development Banks in India can be seen from Table 3.A.5. The Table reveals that the loan advanced by Land Development Banks for the long term purposes has increased from Rs.2544 crores in 1980-81 to Rs.5403 crores in 1990-91.

B. Commercial Banks:

In the pre-nationalisation era commercial banking system was merchant community oriented, their activities were restricted to trade and commerce only. These were based in urban areas. It can be justified from the reports of All India Rural Credit Survey (1954) and All India Debt and Investment Survey (1961-62). These showed that the agricultural loans as portion to total borrowing was 0.9 per cent in 1951-52 and 0.6 per cent in 1961-

62.[2] Commercial Banks credit to agriculture became reality only after the social control in 1967 and setting up a high level representative body known as the National Credit Council under the chairmanship of the then Finance Minister to help the Government and Reserve Bank of India in the task of credit planning with the nationalisation of 14 banks in 1969, the path has been created for a decisive shift in the rural credit policy in favour of commercial banks.

Commercial Banks have expanded themselves in a rapid pace in the post-nationalisation era. The number of branches have gone up from 8,262 in 1969 to 55,414 in 1989, which indicates a seven-fold increase in twenty years. The percentage of rural branches of the total has jumped from 22.17 per cent in 1969 to 57.81 per cent in 1993. The picture of branch expansion can be seen from Table 3.A.6.

Agricultural sector in the post nationalisation era is getting a sizeable portion of the bank credit. It can be seen from Table 3.A.7. Commercial Bank also adopted schemes to provide credit facilities specially to the rural people and weaker sections, which include village adoption scheme, differential rate of interest schemes, integrated rural development programmes and the service area approach to bring the credit facilities in the remote areas more systematically.

C. Regional Rural Banks:

On the recommendation of Narasimham Committee (1975), the Government of India, set up the Regional Rural Banks (RRBs) mainly to fill the gap left unfulfilled due to the failure of adequate supply of credit to rural people by commercial banks and co-operative societies. The major objective of the Regional Rural Banks is to provide credit and other facilities particualrly to the small and marginal farmers, agricultural labourers, artisans and small entrepreneurs, so as to develop agriculture, industry and other productive purposes in the rural areas. Since October 1975, when the first five RRBs were set up, there has been a substantial expansion in the number of RRBs with 14,546 branches at the end of March 1994. They also made a good progress in providing agricultural credit in the country which is evident from Table 3.A.8.

D. National Bank for Agriculture and Rural Development:

In July 1982, National Bank for Agriculture and Rural Development was set up on the recommendation of CRAFI-CARD (Committee for reviewing arrangements for financing institutional credit for agriculture and rural development). The NABARD has taken over the function of ARDC (Agricultue Refinance and Development Corporation) and refinancing functions of Reserve Bank of India in relation to Co-operative Banks and Regional Rural Banks. The authorised capital of NABARD is Rs.500 crores and paid up capital

is Rs.100 crores which is contributed equally by the RBI and Government. of India. In 1990-91 the NABARD has refinanced an amount of Rs.2,120 crores.[3]

The main functions of NABARD are to look after the credit requirements of the rural poor as an apex body and to provide short term, medium term and long term credit to the co-operatives and RRBs, so that they can provide crop loans and to refinance themselves in the case of shoftfalls due to natural calamities and others.

PART B:

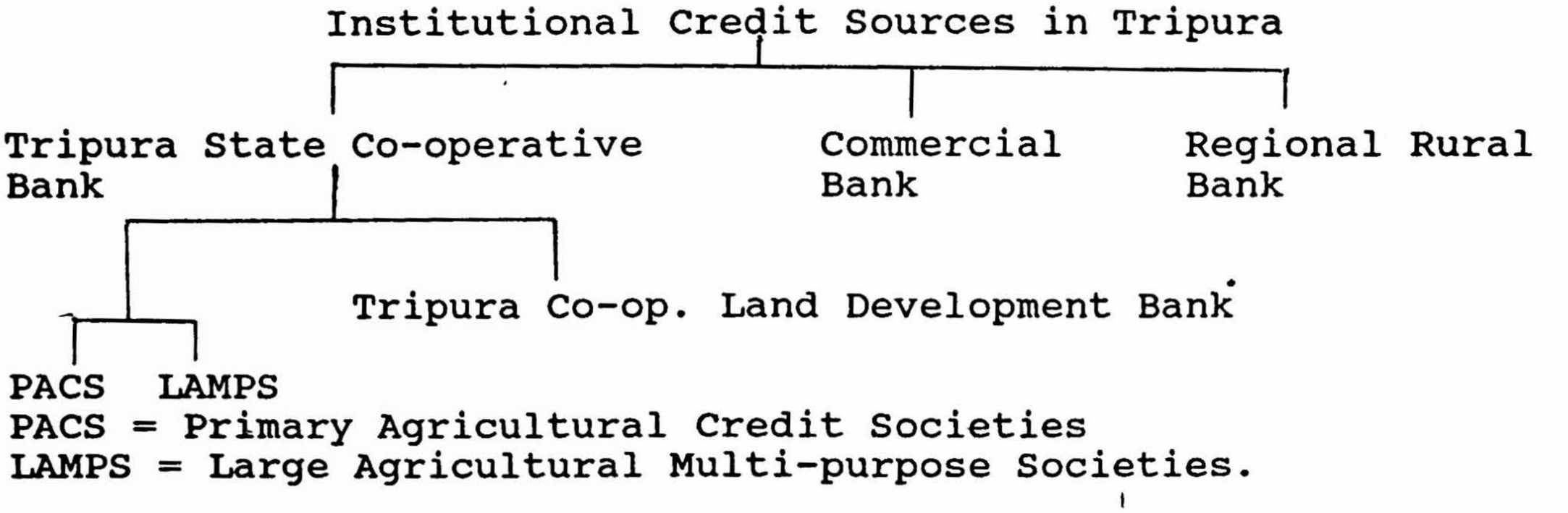
CREDIT INSTITUTION IN TRIPURA

In Tripura state, operation of banking system dated back to the beginning of Twentieth Century. In 1932, one banking department started in the Treasury. The Tripura State Bank was opened to facilitate the business activities in between Tripura and British administered districts and for offering credit facilities to the people of the territory. There were some private banks in operation, viz. the Girish Bank Ltd. The main function of these banks was to offer loans and facilities of cash credit.[4] It is found that besides the private banks, the Maharaja of Tripura had a special fund under `Niz Tahabil' from which loans were issued to members of the Royal family. Loans were issued to the Thakurs (land owners and ritual hierarchy), Government employees and even to the business men from this fund at a nominal interest.[5]

In 1945, a new bank with the name of the Tripura State Bank Ltd. was registered under the Tripura State Government Act. In the post-integration era, i.e. after 1949, the increase in population as well as the volume of business activities laid sufficient ground to flourish the money-lending business. In 1954, Tripura State Co-operative Bank Ltd. was incorporated. It rendered financial help to the Co-operative Societies. One study shows that the Bank issued loans to the tune of Rs.120.42 lakhs for seasonal agricultural operations and purchase of cattle, seeds, manures, agricultural implements etc. upto March 1960.[6] Tripura Co-operative Land Mortgage Bank Ltd. was opened in 1960. The Bank was catering the long term credit needs of the agriculturists. The Scheduled Banks started operation in 1949, the first one was United Commercial Bank Ltd. and in 1952 United Bank of India was started, which is now the lead bank in Tripura.

The structure of Institutional Credit Sources in Tripura is presented in the following chart.

Chart



a) Tripura State Co-operative Bank:

Tripura State Co-operative Bank acts as an apex Bank in the State Co-operative structure. It started its functioning from 1957 with its head office at the State capital at Agartala. It serves both as Central Co-operative Bank and State Co-operative Bank. Table 3.B.1. shows the progress of State Co-operative Bank. Although, it has expanded its base since 1956-57, it is found that quantum of loan issued is decreasing since 1991-92. At the end of 1993-94, it is running with an accumulated loss of Rs.81.85 lakhs.

b) Primary Agricultural Credit Societies (PACS):

Primary Agricultural Credit Societies are maintaining link between the apex level bank and village level societies. In Tripura they have started functioning from 1978-79. Table 3.B.2 reveals that since inception the number of societies and loan advanced have been increased sufficiently. But the alarming point to note is that the amount of overdues stands more than double the loan issued and 155 socieites out of 213 are running in loss in 1991-92.

c) Tripura Co-operative Land Development Bank Ltd.:

Tripura Co-operative Land Development Bank has started its operation from 1960. The major objective of the Bank is to

finance the long term loan for identifiable productive purposes directly to the cultivator farmers. The progress and position of Tripura Co-operative Land Development Bank (Table 3.B.3) shows that loans issued in the year 1991-92 was Rs.96.38 lakhs. On the other hand, overdues also reaching a staggering high. It is found that since 1980-81, it is running in loss and also became a perennial problem for the Bank.

d) Regional Rural Bank (Tripura Gramin Bank):

i) Branch Expansion

Regional Rural Bank in Tripura is known as Tripura Gramin Bank. It has started its operation from the year 1976. Table 3.B.4. shows the district-wise branch expansion over the years. It reveals that at the end of December 1994, there were 33 branches in West Tripura District, 29 in South Tripura District and 28 in North Tripura District.

ii) Loan Operation

Table 3.B.5. shows the loan operation of the Tripura Gramin Bank. It reveals that loan issued by the Bank has increased since inception with its peak in 1988, i.e. Rs.2374.84 lakhs. From 1989 loan issued has been decreasing at an alarming rate. Recovery position of the Bank shows that loan recoverable amount stands at Rs.1542.29 lakhs in 1993.

e) Commercial Banks:

In the past Indigenous banking system was doing the banking business in Tripura. Some private banks and the State Banks of Tripura were operating in this business. In the latter phase, some scheduled banks, namely, United Commercial Bank Ltd., and the United Bank of India Limited, were opened at Agartala in 1949 and 1952, respectively. At the time of nationalisation of banking in 1969, there were five branches[7] in Tripura, out of a total of 90 branches in North-Eastern Region.[8]

i) Branch Expansion

Table 3.B.6 presents branch expansion of Commercial Banks in Tripura. It is clear that branch expansion was slower till 1988, when we compared it with other institutions. It got a fillip in 1989-90 and stands at 91 in 1993-94. Of the total branches, 58.24 per cent are located in rural areas.

ii) Deposit and Advances

Table 3.B.7 shows the deposit and advances to agriculture and allied sectors of commercial banks. It reveals that credit-deposit ratio of the banks stands at 45.4 in 1993-94, a much lower level than its peak of 53.9 in 1989-90. Advances to agriculture and allied sector worked out as 26.60 per cent of the total advances in 1993-94, which is showing a decreasing trend since 1990-91.

f) Recovery Position of Different Institutions:

The Recovery position in different institutions, e.g., Tripura Gramin Bank (TGB), Tripura State Co-operative Bank (TSCB), Tripura Co-operative Land Development Bank (TCLDB), and Commercial Banks in Tripura is shown in Table 3.B.8. It reveals that in the case of TGB, recovery position came down to an abysmal level in 1993-94, which is found as Rs.1.65 lakhs only. In the TSCB recovery position shows a dismal picture in 1993-94. Recovery position in the TCLDB shows an increasing trend in the last five years compared to the previous recovery record with regular fluctuation between the years. In the case of Commercial Banks, recovery position has come up from 1988-89 and reached the peak in 1990-91, which is calculated as Rs.981.29 lakhs.

From the above discussion, it is clear that since independence, organised sector has increased their area of operation, advances to agricultural sector by leaps and bounds both at National and State (Tripura) level. But the price paid for this achievement is the staggering overdues which not only put the farmers in default, but also restrict the banks to serve them again. The present situation of supply, overdues and default at village level in Tripura has been discussed in Chapter V.

TABLE:3.A.1 PROGRESS OF STATE CO-OPERATIVE BANK IN INDIA.

YEAR	NUMBERS	DEPOSITS (crores)	LOAN ISSUED (crores)
1950-51	15	22	42
1960-61	21	72	258
1970-71	25	279	749
1980-81	27	1675	2870
1987-88	29	4440	9323
1988-89	28	5288	10159
1989-90	28	5883	10227
1990-91	28	6708	7853
1991-92	28	7321	7685
1992-93	28	8595	8260

SOURCE: Reports of Currency and Finance,R.B.I.

TABLE:3.A.2. FLOW OF CO-OPERATIVE CREDIT TO AGRICULTURE.

in crores

YEAR	TERM WISE AGRICULTURAL LOAN			
	SHORT TERM	MEDIUM TERM	LONG TERM	TOTAL
1950-51	22.9	-	1.3	24.2
1960-61	182.8	19.9	11.6	214.3
1970-71	519.3	58.6	100.9	678.8
1980-81	1526.3	237.3	362.7	2126.3
1987-88	3119.8	566.8	1023.8	4710.4
1888-89	3594.2	602.5	676.4	4873.1
1989-90	4079.2	639.3	734.0	5453.4
1990-91	3932.0	747.0	713.0	5392.0
1991-92	3950.0	-	1396.0*	5346.0
1992-93	5572	-	1218.5*	6793.7

* includes medium and long term loans.
SOURCE: Reports of Currency and Finance,R.B.I.

TABLE:3.A.3. PROGRESS OF DISTRICT CENTRAL CO-OPERATIVE BANK IN INDIA.

YEAR	NUMBERS	WORKING CAPITAL (crores)	LOAN ISSUED (crores)	OVERDUES (crores)
1950-51	505	4	83	3
1960-61	390	39	350	27
1970-71	341	141	894	274
1980-81	337	4572	3211	940
1987-88	354	12268	8515	2044
1988-89	354	15257	7903	2321
1989-90	355	16767	9552	3528
1990-91	356	18477	11122	3155
1991-92	351	20115	14226	3402
1992-93	354	-	13575	3664

SOURCE: Reports of Currency and Finance ,R.B.I.

TABLE:3.A.4. PROGRESS OF PRIMARY AGRICULTURAL CREDIT SOCIETIES(PACS) IN INDIA.

YEAR	NUMBERS (thousands)	MEMBERRSHIP (lakhs)	LOAN ADVANCED (crores)	OVERDUES (crores)
1950-51	105	44	23	6
1960-61	212	170	202	44
1970-71	161	310	278	322
1980-81	95	575	1746	1099
1987-88	90	873	3687	2132
1988-89	87	918	4197	2407
1989-90	88	812	4789	2874
1990-91	83	801	4679	3139
1991-92	83	867	4973	2875
1992-93	83	862	6401	3189

SOURCE: Reports of Currency and Finance,R.B.I

TABLE:3.A.5. PROGRESS OF LAND DEVELOPMENT BANK IN INDIA.

YEAR	NUMBER	WORKING CAPITAL (crores)	LOAN ISSUED (crores)
1977-78	19	2082	239
1978-79	19	2169	249
1979-80	19	2355	309
1980-81	19	2544	365
1987-88	19	4214	1024
1988-89	19	4504	676
1989-90	19	4793	665
1990-91	19	5403	765
1991-92	19	5223	867
1992-93	19	6205	1106

SOURCE: Reports of Currency and Finance,R.B.I.

TABLE:3.A.6. EXPANSION OF COMMERCIAL BANKS IN INDIA.

YEAR	C E N T R E								TOTAL
	RURAL		SEMI-URBAN		URBAN		METROPOLIS		
	NO.	%	NO.	%	NO.	%	NO.	%	
1969	1832	22.17	3322	40.21	1447	17.51	1661	20.21	8262
1970	3062	30.22	3695	36.47	1583	15.63	1791	17.68	10131
1971	4279	35.62	4016	33.43	1778	14.80	1940	16.15	12013
1972	4814	35.34	4385	32.19	2323	17.05	2100	15.42	13622
1973	5561	36.02	4723	30.74	2573	16.75	2505	16.31	15362
1974	6165	36.40	5089	30.05	2899	17.12	2783	16.43	16936
1975	6810	36.36	5569	29.75	3263	17.42	3088	16.49	18730
1976	7687	36.22	6387	30.10	3769	17.62	3407	16.06	21220
1977	9532	38.43	7211	29.07	4263	17.19	3796	15.31	24802
1978	11802	42.13	7586	27.08	4542	16.21	4086	14.58	28016
1979	13333	44.15	7845	25.97	4717	15.62	4307	14.26	30202
1980	15101	46.58	8079	24.92	4856	14.98	4384	13.52	32420
1981	17650	49.43	8426	23.60	5126	14.35	4505	12.62	35707
1982	20394	52.06	8764	22.37	5359	13.68	4660	11.89	39177
1983	22678	53.89	4036	21.47	5577	13.26	4788	11.38	42075
1984	25372	55.79	9262	20.43	5769	12.73	4929	10.37	45332
1985	28782	55.37	10460	20.13	7542	14.51	5194	09.99	51978
1986	29718	55.79	10567	19.84	7195	13.51	5785	10.86	53265
1987	30201	56.10	10629	19.74	7215	13.40	5795	10.76	53840
1988	31151	56.22	11098	20.02	7338	13.24	5827	10.51	55414
1989	33014	57.22	11165	19.35	7524	13.04	5995	10.39	57698
1990	34494	58.08	11255	18.95	7582	12.77	6057	10.20	59388
1991	35212	58.43	11281	18.72	7630	12.66	6128	10.17	60257
1992	35282	58.17	11289	18.61	7902	13.03	6176	10.18	60649
1993	35406	57.77	11430	18.65	8160	13.31	6294	10.27	61290
1994	35404	57.30	11716	19.00	8297	13.40	6325	10.30	61742

SOURCE: i)Reports of Currency and Finance,R.B.I.
ii)Reports of Trends and Progress of Banking, R.B.I.

TABLE:3.A.7.DIRECT AGRICULTURAL LOAN ISSUED FROM COMMERCIAL BANKS.

YEAR	LOAN ISSUED(in crores)		TOTAL
	SHORT TERM	TERM LOANS (MEDIUM & LONG)	
1973-74	105	114	219
1974-75	146	128	274
1975-76	313	192	405
1976-77	254	254	508
1977-78	288	281	569
1978-79	365	435	800
1979-80	455	520	957
1980-81	517	746	1263
1981-82	623	873	1496
1982-83	565	660	1225
1983-84	872	986	1858
1984-85	1035	1426	2461
1985-86	1252	1477	2729
1986-87	1481	1851	3332
1987-88	1672	1854	3525
1988-89	1765	2048	3813
1989-90	1898	2384	4282
1990-91	2048	2628	4676
1991-92	2341	2465	4806
1992-93	2432	2528	4960

SOURCE: Reports of Currency and Finance,R.B.I.

TABLE:3.A.8. PROGRESS OF REGIONAL RURAL BANKS(RRBs).

YEAR	NUMBERS (Branches)	DEPOSITS (Lakhs)	DIRECT AGRICULTURL LOAN		
			Short term	Term loans	Total (crores)
1981-82	124(6191)	499	NA	NA	168
1982-83	150(7795)	695	98	124	222
1983-84	173(10245)	976	120	143	263
1984-85	188(12606)	1329	132	178	310
1985-86	194(12838)	1714	176	226	402
1986-87	196(13353)	2305	201	276	477
1987-88	196(13020)	2965	246	237	483
1988-89	196(14247)	3643	255	212	467
1989-90	196(14511)	4267	336	312	648
1990-91	196(14531)	5141	125	210	335
1991-92	196(14543)	6935	337	260	597
1992-93	196(14546)	7338	451	247	698

SOURCE: Reports of Currency and Finance,R.B.I.

TABLE:3.B.1. PROGRESS OF TRIPURA STATE.CO-OPERATIVE.BANK.

YEAR	NO.OF BRANCHES	DEPOSITS (Lakhs)	LOAN ISSUED (Lakhs)	PROFIT\ LOSS
1956-57	1	7.94	0.94	-
1960-61	1	16.08	18.31	(+00.45)
1970-71	5	43.65	116.69	(+00.28)
1980-81	21	469.75	111.84	(+00.54)
1985-86	25	1028.34	920.63	(-30.10)
1986-87	25	1183.80	1064.09	(-36.04)
1987-88	26	1453.35	1177.50	(+20.81)
1988-89	26	1811.47	1028.95	(+35.56)
1989-90	27	1851.89	898.88	(+01.64)
1990-91	28	2133.91	941.35	(+34.21)
1991-92	29	2730.67	655.87	(+20.91)
1992-93	30	2439.00	464.96	(+02.04)
1993-94	31	2998.70	421.67	(-81.85)

SOURCE: Tripura State Co-operative Bank.

TABLE:3.B.2. PROGRESS OF PACs IN TRIRURA.

YEAR	NO.OF SOCIETIES	MEMBERS	DEPOSITS (,000)	LOAN ISSUED (,000)	OVERDUES (,000)	NO.OF. SOCIETIES RUNNING IN PROFIT / LOSS.
1978-79	185	51000	105	2240	7182	31(149)
1979-80	199	68392	83	3403	8287	51(142)
1980-81	205	75520	147	3965	7949	46(125)
1981-82	205	87551	301	3330	12590	56(108)
1982-83	207	90503	601	3355	14930	27(153)
1983-84	212	99321	722	3085	16876	48(147)
1984-85	212	103352	905	4832	17005	66(131)
1985-86	212	108951	1405	9784	18538	69(131)
1986-87	212	110767	987	12016	21050	69(136)
1987-88	212	116640	1068	10899	24661	64(141)
1988-89	212	119118	675	15615	29994	66(137)
1989-90	212	121642	911	18698	47101	40(164)
1990-91	212	128231	933	18543	61829	70(135)
1991-92	213	138049	1604	36596	75126	49(155)

SOURCE: Tripura State co-operative Bank.

TABLE:3.B.3. POSITION OF TRIPURA CO-OPERATIVE LAND DEVELOPMENT BANK LTD.

Indira Gandhi Manav Adhikar Vishwavidyalaya 134

YEAR	MEMBERSHIP	WORKING CAPITAL (Thousands)	LOAN ISSUED (Lakhs)	OVERDUES (Lakhs)	PROFIT / LOSS (Lakhs)
1976-77	3672	29.29	00.18	01.54	(-)00.25
1977-78	3676	42.83	00.83	02.16	(-)01.57
1978-79	3794	60.64	07.11	02.11	(+)00.35
1979-80	3996	65.01	22.48	02.63	(+)01.26
1980-81	5696	115.52	58.41	03.24	(-)02.23
1981-82	6624	161.27	35.13	09.67	(-)07.76
1982-83	6724	172.49	03.08	23.06	(-)08.43
1983-84	6926	189.64	10.65	34.38	(-)08.81
1984-85	7143	213.93	12.42	44.03	(-)17.47
1985-86	7446	227.95	16.09	43.94	(-)14.27
1986-87	7716	257.52	23.61	50.36	(-)11.25
1987-88	7846	267.60	16.57	37.78	(-)19.60
1988-89	8077	298.13	36.99	15.89	(-)12.70
1989-90	8333	374.44	30.09	98.23	(-)33.90
1990-91	8677	371.61	28.89	05.23	(-)01.93
1991-92	9522	403.62	96.38	45.44	(-)13.20
1992-93	10023	455.38	60.45	32.98	(-)22.92
1993-94	10347	517.52	69.77	95.82	(-)24.37

SOURCE: Tripura Co-operative Land Development Bank.

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TABLE:3.B.4. DISTRICT-WISE BRANCH EXPANSION OF TRIPURA GRAMIN BANK(RRB).

YEAR	D I S T R I C T S			TOTAL
	WEST	SOUTH	NORTH	
1976	03	01	01	05
1977	03	06	08	17
1978	-	02	-	02
1979	02	02	01	05
1980	11	06	04	21
1981	-	01	-	01
1982	-	-	-	-
1983	03	04	03	10
1984	03	-	-	03
1985	02	03	08	13
1986	-	-	-	-
1987	-	-	-	-
1988	05	01	01	07
1989	-	03	01	04
1990	01	-	01	02
1991	-	-	-	-
1992	-	-	-	-
1993	-	-	-	-
1994	-	-	-	-
	33	29	28	90

SOURCE: Tripura Gramin Bank.

TABLE:3.B.5. LOAN OPERATION OF TRIPURA GRAMIN BANK

YEAR	DEPOSITS (Lakhs)	LOAN ISSUED (Lakhs)	LOAN RECOVERABLE (Lakhs)
1976	2.82	NA	NA
1977	43.91	48.35	8.03
1978	112.09	148.39	63.00
1979	209.22	NA	156.00
1980	381.23	221.59	229.07
1981	577.01	379.91	569.25
1982	786.18	NA	852.00
1983	1055.19	421.59	NA
1984	1284.56	473.15	1082.70
1985	1768.73	629.82	1235.78
1986	2331.71	655.03	1624.40
1987	3212.83	765.62	1703.20
1988	4204.23	2374.84	803.82
1989	4738.34	778.17	1165.36
1990	5199.35	211.44	1487.10
1991	5850.23	238.76	985.00
1992	6262.70	254.42	1267.49
1993	8157.55	321.84	1549.29

SOURCE: Tripura Gramin Bank.

TABLE:3.B.6. EXPANSION OF COMMERCIAL BANKS IN TRIPURA.

YEAR	URBAN	SEMI-URBAN	RURAL	TOTAL
1983-84	-	21	36	57
1984-85	14	09	36	59
1985-86	17	10	32	59
1986-87	17	10	33	60
1987-88	19	10	39	68
1988-89	18	12	38	68
1989-90	19	13	52	84
1990-91	20	12	54	86
1991-92	21	12	55	88
1992-93	23	12	55	90
1993-94	26	12	53	91

SOURCE: United Bank Of India (Lead Bank of Tripura)

TABLE:3.B.7. DEPOSITS AND ADVANCES TO AGRICULTURAL AND ALLIED SECTOR FROM THE COMMERCIAL BANKS.

YEAR	DEPOSITS (Lakhs)	CREDIT DEPOSIT RATIO	ADVANCES TO PRIORITY SECTOR (Lakhs)	
			TOTAL	AGRI & ALLIED(%)
1983-84	5830.04	41.4	2309.49	689.53 (29.86)
1984-85	7957.08	42.6	2805.09	894.18 (31.88)
1985-86	9858.48	51.1	3660.31	1269.67 (34.68)
1986-87	12183.61	47.6	4293.62	1470.73 (34.25)
1987-88	14656.74	46.3	5329.57	1476.16 (33.24)
1988-89	16270.72	43.1	5446.27	1796.32 (32.98)
1989-90	20196.51	53.9	8150.89	2557.74 (31.37)
1990-91	24767.90	45.3	7612.69	1537.61 (20.19)
1991-92	27820.36	44.2	8148.52	1903.72 (23.36)
1992-93	27903.27	48.8	9600.99	2122.49 (22.11)
1993-94	33486.42	45.4	9044.43	2406.08 (26.60)

SOURCE: United Bank Of India (Lead Bank of Tripura).

TABLE:3.B.8. RECOVERY POSITION OF DIFFERENT INSTITUTIONS. (in lakhs)

YEAR	T.G.B.		T.S.C.B.		T.C.L.D.B.		C.Bs.	
	S.T	M.T	S.T	M.T	S.T	M.T	S.T	M.T
1983-84	34.8	29.7	01.8	04.6	-	08.8	21.2	28.7
1984-85	34.8	29.7	02.7	01.7	-	-	18.8	30.7
1985-86	12.5	12.5	21.8	15.9	-	15.7	19.3	23.2
1986-87	28.0	24.0	11.1	20.9	-	06.3	42.8	24.4
1987-88	22.3	15.7	29.2	34.9	-	23.1	16.7	27.6
1988-89	-	-	35.6	31.1	-	07.9	89.9	114.1
1989-90	22.0	16.0	31.4	30.1	-	40.7	144.6*	
1990-91	13.0*		NA	-	-	86.1	981.3*	
1991-92	86.2*		17.1*		-	31.0	135.5*	
1992-93	01.9*		18.0	08.5	-	58.7	181.2*	
1993-94	01.7*		08.0*		-	32.9	161.5*	

S.T- Short term. M.T- Medium term.
* includes short term & medium term loan.

TGB- TRIPURA GRAMIN BANK
TSCB- TRIPURA STATE CO-OPERATIVE BANK
TCLDB- TRIPURA CO-OPERATIVE LAND DEVELOPMENT BANK
CBs.- COMMERCIAL BANKS.

SOURCE: Reports of various State Level Bankers Conference.
U.B.I (Lead Bank of Tripura).

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C H A P T E R - IV

PROFILE OF WEST TRIPURA DISTRICT AND SAMPLE VILLAGES

PROFILE OF WEST TRIPURA DISTRICT AND SAMPLE VILLAGES

This chapter presents a profile of West Tripura District and the two sample villages, viz., (i) Khas Madhupur, and (ii) Ishanchandra Nagar.

A. WEST TRIPURA DISTRICT[1] (Map 1):

a) Area and Location

The district is located in the North-Western part of the State of Tripura. It spreads over a total area of 2996 sq. Kms. The Northern and Western sides are bounded by Bangaladesh, on the east it is bounded by North Tripura district and on the south by South Tripura district.

b) Administrative Set-up

The headquarters of the district is Agartala, which is also the capital of the State. It consists of three sub-divisions, namely, Khowai, Sadar and Sonamura. There are 81 Tahsils, 274 Revenue villages, 339 Gaon panchayat and 7 Development Blocks.

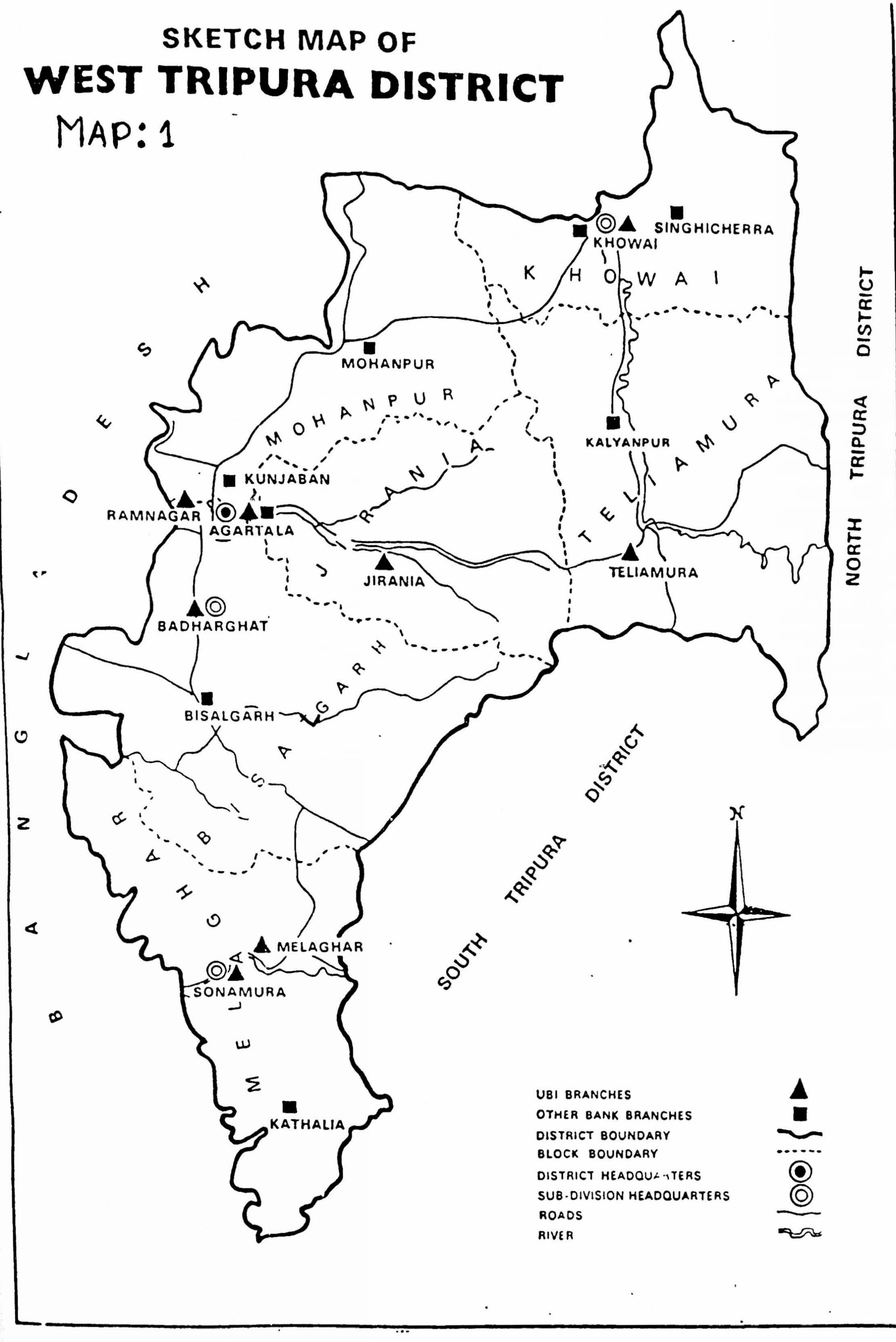
c) Climate and Rainfall

The climate of the district is generally warm and humid. Temperature usually ranges between 5 to 39 degrees C. The district lies within South-West monsoon and rainfall is heavy. The

SKETCH MAP OF

WEST TRIPURA DISTRICT

MAP: 1



rainy season usually starts in May and continues upto October. Rainfall during June and July is usually heavy.

d) Physical Features

The district is basically hilly, undulating tracts and land strips between the hill interspersed with plain land in the river valleys are the basic topographic characteristics of the district. The hill ranges are located in the North-Eastern part of the district and they run North to West while the villages between the ranges are set with a hill streams.

e) River System

The Khowai and Howrah are the principal rivers of West Tripura district. River Khowai rises from Longtharai range and spreads over a length of about 166 kms. It runs in North-Eastern direction upto Teliamura and thereafter takes a straight northern course till it enters Bangladesh border. The main tributaries of the Khowai are Balucharra, Jeolcharra, Chamalcharra, Ahiadincharra, Bhaskarcharra, Moharanicharra, Tuirupacharra, Somrucharra and Lalcharra on its right bank and Gulicharra, Nuracharra, Kakracharra, Brahmacharra, Sarducharra, Batikacharra, Gangraicharra and Sonaicharra on the left bank. The river has total catchment area of 1328.70 sq. kms.

f) Land Resources

Total geographical area of the district is 2,996 sq. kms., i.e., 2,99,600 hectares, of which 2,055 hectares constitute water area.

The soil in the district is mainly laterite in the hills and alluvial in the plains. The high land soil is medium to fine in texture and is not rich in organic matter and plant nutrients. The plain land soil is classified as loamy and has lower sand content. The soil in the narrow valleys situated between hillocks is referred to as lunga land. The soil is generally of clay loam variety.

g) Forest Resources

Forest forms a continuous belt in the North-Eastern part of the district and are very dense in portions. It consists of 1,05,073 hectares that is 35 per cent of the total district area.

h) Population

According to 1991 census, the total population of the district stood at 12,93,861. Out of the total population, 3,15,904, i.e. 24.4 per cent lived in the urban area and the remaining 9,77,957, i.e. 75.6 per cent lived in the rural areas. The scheduled caste and scheduled tribe population in the district is 2,40,201, i.e., 18.6 per cent and 3,25,845, i.e. 25.2 per cent,

respectively.[2]

i) Working Population

According to 1991 census, main workers in the district constitutes 28.95 per cent of the total population and non-workers 69.71 per cent, which shows that dependents are much higher than earners. The cultivators and agricultural labourer constitutes 80.66 per cent and 24.24 per cent of the main workers respectively.[3]

Table 4.A.i: Occupational structure of West Tripura.

Classification	Persons (%)
1. Main workers	3,74,615 (28.95)
(a) Cultivators	1,14,873 (08.88)
(b) Agricultural labour	83,317 (06.44)
2. Marginal workers	17,344 (01.34)
3. Non-workers	9,01,902 (69.71)
Total	12,93,861 (100.00)

Source: Some Basic Statistics of Tripura, 1993

j) Literacy

According to 1991 census, 8,53,948 persons out of the total population of 12,93,861 are literate which constituted 65.83 per cent of the total. Literacy rate for male and female are 75.87 per cent and 55.15 per cent, respectively.[4]

k) Agriculture and Allied Activities

Agriculture in the district apart from providing food etc., has been the largest source for providing work and income for the people. The major part of the district economy is built upon agriculture.

Table 4.A.k.: Land utilisation pattern in West Tripura district (1991-92)

S.No.	Nature of utilisation	Area (in hec.)
1.	Net area sown	1,23,700
2.	Current fallow	8,765
3.	Other uncultivated land excluding current fallow	1,200
4.	Fallow land other than current fallow	150
5.	Cultivable waste land	200
6.	Area not available for cultivation	60,794
7.	Area sown more than once	87,800
8.	Total cropped area	2,11,500
	Total geographical area	2,99,682

Source: Some Basic Statistics of Tripura, 1993.ls2

Out of the total geographical area of 2,99,682 hectares of which 1,41,286 hectares are under agriculture. The area under irrigation is 18.5 per cent of the gross cropped area and the rest of the area under rain-fed dry land cultivation. The size of average operational holding is 0.99 hectare in 1985-86.[5] The adoption of technically innovative cultivation in hill areas inhabitated by tribal is practically nil with a large number of

tribal families are practicing jhum, i.e. shifting cultivation. The following table shows the land utilisation pattern in the West Tripura district.

1) Operational Land Holdings

The distribution of the land holdings in West Tripura shows that the 92.63 per cent of cultivating households in the district comes under the classification of small and marginal farmers (i.e., cultivators with land holdings of less than 2 hectares). The following Table represents the operational holding by size groups and area covered thereof.

Tabale 4.A.1: Operational land holdings in West Tripura.

Sl. No.	Size class of holdings	No. of operational holdings	Area operated (in hec.)	Average area per holding (in hec.)
1.	Marginal (below 1 hec.)	99,478 (70.41)	52,829 (37.39)	0.53
2.	Small (1 to below 2 hec.)	31,382 (22.22)	53,660 (37.90)	1.71
3.	Semi-medium (2 to below 4 hec.)	8,973 (06.35)	24,733 (17.51)	2.75
4.	Medium (4 to below 10 hec.)	1,401 (00.99)	7,271 (05.14)	5.18
5.	Large (10 hec. and above)	52 (00.03)	2,762 (01.96)	53.10
	All categories	1,41,286	1,41,255	00.99

Source: Agricultural Census (Tripura State), 1985-86
Note : Figures in bracket show the percentage.

Table reveals that small and marginal farmers constituting 92.63 per cent of the total landowning households controlled 75.29 per cent of the total operated area, while medium and large

farmers constituting 0.12 per cent are controlling 7.1 per cent of the total operated area.

m) Cropping Pattern

The district is predominantly a paddy growing area. The paddy grown in the district can be classified as Aush, Amon and Bodo, other important crops in the district are wheat, potato, chillies, sisasum, ginger, etc.

n) Irrigation

The average rainfall although heavy, is not well spread throughout the year. Most of the rainfall occurs between May and October causing recurring floods over vast areas. The source of irrigation are seasonal bund, lift irrigation, Deep Tubewell, Alrision well, small pump etc. The total potential utilised during the year 1991-92 is 25073 hectares which constituted 18 per cent of the total operated area.[6]

o) Fertilizer and Plant Protection Chemicals

In the matter of the adoption of scientific agricultural practices, the importance of high level consumption of fertilizer and plant protection chemicals is gradually taking place. Table 4.A.o shows that the consumption of chemicals has increased by seven folds during 1977-78 to 1991-92.

Table 4.A.o: Consumption of Chemical Fertilizers in West Tripura District.

	Item	Amount (in MTs) 1977-78	1991-92
1.	Nitrogen (N)	371	2,664
2.	Phasphatic (P_2O_5)	119	1,101
3.	Potassic (K_2O)	108	537
	Total (NPK)	598	4,302

Source: Some Basic Statistic of Tripura, 1992.

p) Credit and Banking

In the West Tripura District, as on December 1994, there are 16 branches of State Co-operative bank, 52 branches of Commercial Banks, 33 Regional Rural Bank branches and Tripura Co-operative Land Development Bank has one branch.

All the development blocks of the district, have been covered by Commercial and Regional Rural Bank branches and population per bank at the end of 1994 stands at 15,221.[7]

Total deposits commanded by the banking and Co-operative system as on December 1994 were of the order of Rs.32,512.74 lakhs (excluding Agartala Co-operative Urban Bank) and the credit deposit ratio for the district is worked out as 47.23 per cent. The priority sector lending for the said period stood at 20.64 per cent of which 17.79 per cent was crop loan.[8]

B. VILLAGE - 1: KHAS MADHUPUR VILLAGE[9] (Map - 2):

a) Area and Location

Khas Madhupur village is situated at a distance of 15 KMs from the District headquarters, Agartala, under Bishalgarh Development Block. The total area of the village is 602 hectares. The village spreads from north to south.

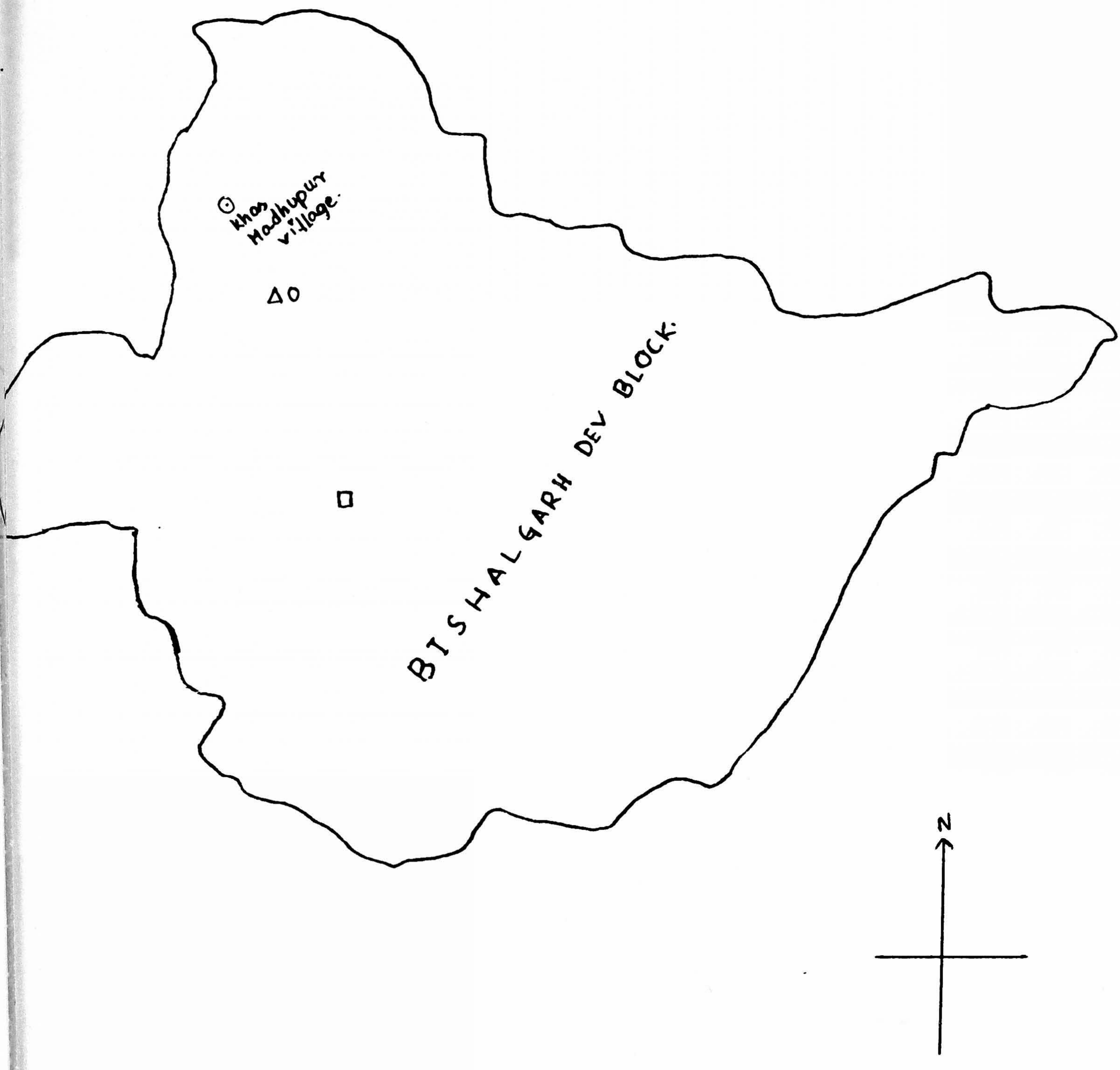
b) Climate and Rainfall

The climate of this village is generally warm and humid. Temperature usually reached its peak in April-May and lowest in January. Temperature recorded at Agartala is 43 degrees C on May 1994 and 5.7 degrees C on January 1995. The rainy season usually starts from May and continues upto to October. Rainfall is heavy during June and July.

c) Soils

The village is composed of plain land and hillocks. The soil of the village can be classified into Atal (clay type), Belay (sandy loam), and Dowash (sandy). The texture of the soil is sandyloam. The plain land soil contains more organic matter than the soils of the high lands and also plant nutrients in the high land is devoid of humus.

MAP: ②



TOTAL AREA OF THE VILLAGE : 602 hects

BLOCK HEADQUATERS : □

STATE BANK OF INDIA : △

CO-OPERATIVE SOCIETY : ○

d) River and Falls

Although there is no river flowing through this village, there are three natural falls in this village, viz., Amtalicharra from Adarsha para to Ishanchandra kuricharra, Kuripukur charra from Hathkara to Kuricharra and Kusturicharra from Khas Madhupur. These cover an area of 152 hectares of this village.

e) Population

The total population of the village in 1991-92 was 8292 consisted of 1379 families. Out of the total, 653 people belongs to Scheduled Caste comprising 118 families and 16 people belongs to Scheduled Tribe population comprising three families.

Table 4.B.e: Distribution of population by Caste (1991-92):

Caste	Family Nos.	Population (%)
General	1258	7623 (91.93)
Scheduled Caste	118	653 (07.87)
Scheduled Tribe	3	16 (00.20)
Total	1379	8292 (100.00)

Source: Block Development Office, Bishalgarh

According to percentage distribution, the Scheduled Caste, the Scheduled Tribe and the General Caste are distributed as 07.87 per cent, 0.20 per cent and 91.93 per cent, respectively. Most of the general caste people of this census came under other

backward caste category in recent years.

f) Occupational Pattern

The distribution of population by occupation is given in Table 4.B.f. Table reveals that of the total households, 70.49 per cent are cultivators, 15.37 per cent are landless agricultural labour and 14.14 per cent are doing other activities.

Table 4.B.f: Distribution of population by occupation

	Category	Household No. (%)	Population
	Main Workers		
1.	Cultivators	972 (70.49)	5957
2.	Landless Agricultural Labourers	212 (15.37)	1279
3.	Others	195 (14.14)	1056
Total		1379 (100.00)	8292

Source: Block Development Office, Bishalgarh

Note : (i) Others include service, small scale business, small scale pottery, fishing, etc.
(ii) Here occupation of the head of the household/ family is given.

g) Literacy

This village has one senior basic school, three junior basic schools and one primary school, imparting school education. As it is evident from the sample survey, most of the farmers irrespective of size class are literate. According to sample survey (pertaining to 1994-95) 83 per cent sample farmers are found as

literate.

h) Land Utilisation Pattern

The following table shows the land utilization pattern in the Khas Madhupur village.

Table 4.B.h: Land utilisation pattern in Khas Madhupur village

S.No.	Classification of area	Area (in hectares)	Percentage to total area
A^1	Net sown area	255	42.36
A^2	Current Fallow	40	06.64
B^1	Other cultivated land excluding Fallow	82	13.62
B^2	Fallow land other than current Fallow	101	16.78
B^3	Cultivable waste land	23	03.83
C^1	Forest	95	15.78
C^2	Rubber Plantation	06	00.99
D^3	Land not available for cultivation	00	00.00
	Total geographical area	602	100.00

Source: Block Development office, Bishalgarh.

Table reveals that 42.36 per cent of the total land is net sown area. Forest in this village covered 15.78 per cent of the total area and 0.99 per cent of the total area is being used for rubber plantation.

i) Cropping Pattern

The major crop produced by the majority of farmers is paddy. Two types of paddy, namely, Aush and Boro are being practised. Except paddy which is generally cultivated in the plain land, in the hillocks or lunga land, early Khariff, Mesta (a type of coarse Jute), sisasum and Khariff vegetables are produced.

j) Irrigation and Water Resources

Irrigation facilities in this village is served through three falls, three deep tubewells and numerous seasonal ponds and shallows. One estimate at the block level shows that around 214 hectares come under different minor irrigation projects. From the panchayat source, it is found that 15 pump sets are owned by farmers in this village and Panchayat also having one hiring centre, which serves the irrigation purpose at minimum rate.[10]

k) Infrastructural Facilities

Infrastructural facilities in a village consisted of marketing, roads, transport, health, agricultural suport system. It is found that being nearer to the capital and markets, it has accessibility of two markets which operate thrice a week for wholesale purpose. Although educational facilities are well enough, roads within the village are kutcha, which create lot of problems during rainy reason. There is a village level agricul-

ture office which is nearer to this village, so getting information and carrying seeds, fertilizer, pesticides at governmental rate is not posing any hardship to the farmers of this village.

1) Credit and Banking

One Commercial Bank and one Primary Agricultural Credit Society are operating in this village. Being nearer to both of the institutions, it is found that getting loan from the institutional sources is easier to this village farmers. During 1994-95, Commercial Bank issued 46 Nos. of IRDP (Integrated Rural Development Programme) loans in this village.[11]

C. VILLAGE - 2: ISHANCHANDRA NAGAR[12] (Map - 3)

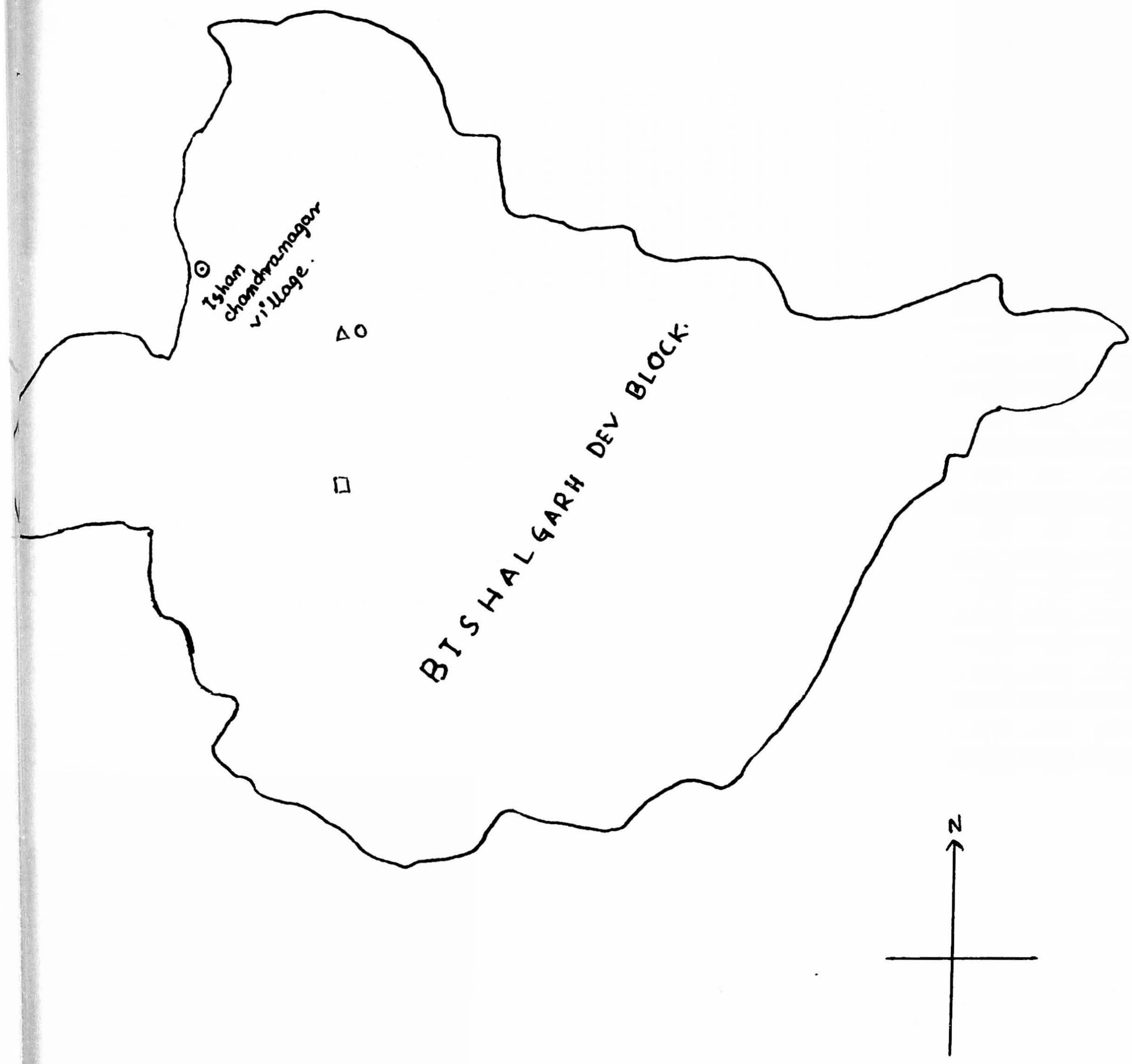
a) Area and Location

Ishanchandranagar village is situated at a distance of 8 kms from the Bishalgarh Development Block headquarters, under which it comes. The total area of the village is 607.2 hectares. The village spreads from east to west.

b) Climate and Rainfall

The climate of the village is normal. Temperature reaches its highest in May and lowest in January. The rainy season generally starts from May and continues upto October. In 1994-95 season, the village experienced normal rainfall. Temperature

MAP : ③



TOTAL AREA OF THE VILLAGE : 607 hees

BLOCK HEAD QUATERS : □

STATE BANK OF INDIA : Δ

CO-OPERATIVE SOCIETY : O

recorded in the village are almost similar that of Agartala.

c) Soil

The village is composed of plain land and hilly terrain. The soil of the village can be classified into Belay (sandy loam) and Dowash (sandy). The soil is not rich in organic matter and plant nutrients. Plain land soil has lower sand content than the hillocks. The soil is medium to fine in texture and light grey in colour.

d) River and Falls

There is only one tributary called Simnai of the principal river Howrah is passing through the border of the village in Mantali and enters into Bangladesh border via Muchitala.

e) Population

The total population of the village in 1991-92 was 4280 consisting of 925 families. Out of the total, 3429 comprising 750 families belongs to General Caste, of them nearly 85 per cent became other backward caste in recent notification and 851 comprising 175 families belong to Scheduled Caste.

Table 4.C.e: Distribution of population by Caste (1991-92):

Caste	Family Nos.	Population (%)
General	750	3932 (80.12)
Scheduled Caste	175	976 (19.88)
Scheduled Tribe	---	---
Total	925	4908 (100.00)

Source: Block Development Office, Bishalgarh.

According to percentage distribution 80.12 per cent belongs to General Caste and 19.88 per cent belongs to Scheduled Caste.

f) Occupational Pattern

The distribution of population by occupation is given in Table 4.C.f.

Table 4.C.f.: Distribution of population by occupation.

	Category	Household No. (%)	Population
	Main workers		
1.	Cultivators	704 (76.11)	3786
2.	Landless agricultural labourers	92 (09.94)	493
3.	Others	129 (13.95)	629
	Total	925 (100.00)	4908

Source: Block Development Office, Bishalgarh
Note : i) Others include service, small scale business, small scale pottery, fishing etc.
ii) Here occupation of the head of the household/family is given.

The Table reveals that of the total households, 76.11 per cent are cultivators, 9.94 per cent are landless agricultural labourers and 13.95 per cent are doing other activities.

g) Literacy

This village has two senior basic schools and two junior basic schools imparting school education. Findings from the sample farmers show that most of the farmers irrespective of size class are literate. According to sample survey (pertaining to 1994-95), 76 per cent sample farmers found as literate.

h) Land Utilisation Pattern

The following Table shows the land utilisation pattern in the Ishanchandra Nagar village.

Table 4.C.h: Land utilisation pattern in Ishanchandra Nagar village (1991-92)

S.No.	Classification of geographical area	Area (in hectares)	Percentage to total area
A^1	Net sown area	187	30.81
A^2	Current fallow	64	10.54
B^1	Other cultivated land excluding fallow land	257	42.34
B^2	Fallow land other than current fallow	04	00.66
B^3	Cultivable waste land	44	07.25
C^1	Forest	47	07.74
C^2	Rubber plantation	--	--
D^1	Land not available for cultivation	04	00.66
	Total	607	100.00

Source: Block Development Office, Bishalgarh

Table shows that 30.81 per cent of the total land in this village is net sown area. Forest occupies 7.74 per cent of the total land and other cultivated land excluding Fallow land comprises 42.34 per cent of the total land.

i) Cropping Pattern

The major crop produced by the majority of the farmers is

paddy, namely, Aush and Boro. Most of the farmers, irrespective of size class practised one crop a season, namely, Boro, for which water requirement is much less than others. Different variety of vegetables, e.g. potato, cauli flower, cabbage are also practised by majority of farmers in the low land.

j) Irrigation and Water Resources

Irrigation facilities in this village is meagre. Water resources is mainly depended on the vagaries of nature. In the rainy season, the low land gets the water, otherwise it remains dry and depends upon the pond water. Household survey reveals that there are two pump sets and two water lifts are working in this area. Although, there is a hiring centre owned by government, it is now closed due to non-functioning of government owned pump sets.[13]

k) Infrastructural Facilities

Infrastructural facilities in this village are meagre except the educational facilities which has been discussed earlier. The village itself has no local market and has to depend on the market operating more than 10 Kms away from the village. The village roads are kutcha, they take precarious turn in the rainy season. The accessibility of health facilities is served by one primary health centre, which is starved of manpower. The village level agricultural office is 7 Kms away and makes problems to the farmers to buy and carry seeds, fertilizers, pesticides at gov-

ernment concessional rates from Amtali to the interior area of Ishanchandra Nagar village.

1) Credit and Banking

Credit and banking facilities are not available from institutional sources locally in this village. Although, it comes under Amtali branch of State Bank of India and Primary Agricultural Society, they are situated nearly 10-12 KMs from this village. During 1994-95, Commercial Bank issued 43 Nos. of IRDP loan in this village and also two numbers of loans under SC Corporation.[14]

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C H A P T E R - V

ESTIMATION OF CREDIT GAP AND EXTENT OF INDEBTEDNESS

ESTIMATION OF CREDIT GAP AND EXTENT OF INDEBTEDNESS

This chapter deals with socio-economic features of the sample households,[1] the estimation of credit gap and also explains the extent of indebtedness of the sample farmers.

a) DEMOGRAPHIC COMPOSITION:

Tables 5.a.1 and 5.a.2 show the distribution of population among different size group by age and gender. Total population among sample households found as 674 in the irrigated village and 703 in the non-irrigated village. Gender-wise distribution reveals that in the irrigated village 53.56 per cent population is male and 46.44 per cent female. In the non-irrigated village, it is found as 54.48 per cent male and 45.52 per cent female. Age-wise distribution shows that the highest number falls in the 15-60 years, i.e. working group of population in both the villages and gender among all the size groups. The percentage of working force worked out as 70.71 per cent in the irrigated village and 68.56 per cent in the non-irrigated village. It suggests that both the villages have sufficient work force.

b) EDUCATIONAL LEVEL:

Level of Education is considered to be an important factor of the progressiveness of the farmers and it is supposed to affect use pattern of the farm inputs, his borrowing habit,

ability to make proper use of credit and repayment of loans. It can be presumed that a farm run by well-educated farmers are likely to be non-defaulters because they usually know the pros and cons of a defaulter and non-defaulter. The educational level of the sample farmers in both the villages among different size groups is presented in Tables 5.b.1 and 5.b.2.

In the irrigated village, the percentage of illiteracy is found to be highest in the landless group of farmers, which is having 47.06 per cent illiterates. Next to them are small farmers having 13.33 per cent illiterates and marginal farmers having 12.50 per cent illiterates. Among sample farmers who constitute the literate in different size groups are found as follows, marginal farmers who attained the high school level is 53.37 per cent, primary level 28.57 per cent and secondary and above 5.36 per cent. In the case of medium and small farmers, 58.33 per cent and 40 per cent crossed the high school level, 38.33 per cent and 20 per cent crossed secondary and above level and 3.33 per cent and 26.69 per cent crossed primary level, respectively.

In the non-irrigated village, it is found that 66.67 per cent landless farmers are illiterate, while 22.58 per cent marginal farmers and 10.52 per cent small farmers found to be illiterate. Group-wise distribution reveals that in the marginal size group, 4.32 per cent attained high school level and 30.65 per cent crossed the primary level. In the case of small farmers, 63.17 per cent crossed the high school level, 15.79 per cent attained primary level and 10.52 per cent achieved secondary and

above level, respectively. In the case of medium farmers 57.14 per cent, 28.57 per cent and 14.29 per cent attained the high school, primary and secondary level, respectively.

It is found that around 20 per cent of the sample farmers are illiterate. The reason behind this achievement is the presence of school level education both at primary and secondary level in both the villages. Illiteracy in the landless groups of households might be attributed to their pre-occupation with daily work and poor economic conditions.

c) OPERATIONAL LANDHOLDINGS:

Operational land holdings refer to the area available with the farmer to cultivate during the survey period. It includes `own land', `leased-in', and `girbi-in' (for the concpet of girbi `land, please see Sec.e) land. The distribution of operational land holdings among the different size groups in both the villages is shown in Table 5.c.

Out of all the landowning sample households, quite a large number of sample holdings were marginal farmers. It is found that in the irrigated village 67.47 per cent and in the non-irrigated village 70.45 per cent are marginal farmers. Small farmers are found to be 18.57 per cent in the irrigated village and 21.59 per cent in the non-irrigated village. In the irrigated village marginal and small farmers constitutes 85.54 per cent of the landowning households controlled 56.97 per cent of the

total operated area. In the non-irrigated village both small and marginal farmers constitute 92.04 per cent of total land owning farmers controlling 76.21 per cent of the total operated area. On the other hand, medium farmers who constitutes 14.46 per cent of total landholdings are controlling 43.03 per cent of the total operated area in the irrigated village. In the non-irrigated village medium farmers comprising 7.96 per cent of total land-holdings are controlling 23.79 per cent of the total operated area. It is found that the average size of holding is 1.03 hectares in the irrigated village and 0.78 hectares in the non-irrigated village. In the irrigated village the average size is calculated as 0.53 hectares, 1.23 hectares, 3.06 hectares in the case of marginal, small and medium farmers, respectively. In the non-irrigated village, it is found as 0.44 hectares, 1.32 hectares, 2.34 hectares in the case of marginal, small and medium farmers, respectively.

Thus, the distribution shows the predominance of marginal and small farmers in both the villages. The land distribution is much more skewed[2] in the irrigated village than the non-irrigated village which might be due to the advantage of irrigation which makes the medium farmers to get the greater mileage. The average size of the different size group of farmers except small farms is greater in the irrigated village than non-irrigated village which gives advantage of not only of irrigation but also from size of the farm in the irrigated village than their counterparts in the non-irrigated village.

d) DEPENDENCY RATIO:

It can be assumed that dependency ratio[3] rises with the size groups as normally most of the members of smaller[4] holding group go for work to earn.

Table 5.d depicts the average size of family and dependency ratio according to size group in both the villages. In the irrigated village average size of family is found to be largest in the medium farmers group. In the other group it is 5.82 in the category of landless farmers, 6.25 in the marginal size, 7.73 in the case of small farmers and 9.08 in the case of medium size groups. In the non-irrigated village, the average size of the family is found as 5.33, 6.56, 9.05, 8.57 in the case of landless, marginal, small and medium size group of farmers, respectively. It is found that dependency ratio is largest in the small farmers group in the irrigated village, i.e. 3.46. For the other size group in this village, the ratio is worked out as 2.41, 2.57, 3.19 in the case of landless, marginal and medium farmers, respectively. In the non-irrigated village, the ratio comes around two and a half in the different size groups. Group-wise distribution shows that it is 2.2, 2.54, 2.07, 2.53 in the case of landless, marginal, small and medium size group, respectively.

The Table reveals that the dependency ratio is consistently higher in the different size groups in the irrigated village

compared to their counterparts in the non-irrigated village, which established the fact that more family members are at work in the non-irrigated village to survive and run their family. The higher dependency ratio in the irrigated village can also be attributed to the fact that the irrigated village has high percentage of population below 15 years and and lower rate of participation of women although percentage of women population is higher in the irrigated village (Table 5.a.1 and 5.a.2).

e) DISTRIBUTION OF `LEASED-IN' AND `LEASED-OUT' LAND AMONG DIFFERENT SIZE GROUPS:

The details about the land ownership in different size groups are presented in Table 5.e. It is found that there are four types of land holding along with owned holding, viz., `leased-in' land, `leased-out' land, `girbi-in' and `girbi-out' land. The nature of Girbi land (term used locally) is, to some extent different from the generally accepted forms. Here lands are rented `out' or `in' on receipt or payment of a fixed amount and until this amount is cleared land will be with the person who has taken the possession of it or in other words, it will be out of the hand of owners' in the case of `Girbi out' land. Here `leased-in' and `girbi-in' lands are clubbed in one and also the `leased-out' and `girbi-out' land on the other.

In the irrigated village, `leased-in' land in the case of marginal and small farmers is found to be 15.38 per cent and 12.71 per cent of the total operational area held by respective

size goups. It is nil in the case of medium farmers. On the other hand, `leased-out' land is calculated as 10.34 per cent, 18.10 per cent, 13.69 per cent of the total operated area in the case of marginal, small and medium farmers, respectively. In the non-irrigated village, `leased-in' land comprises 26.24 per cent and 4.46 per cent of the total operated area in the case of marginal and small farmers respectively. On the other hand, `leased-out' land is calculated as 15.12 per cent, 14.39 per cent, 21.46 per cent of the total operated area in the case of marginal, small and medium size group of farmers respectively.

It is observed that farmers are mostly dependent on their own land. The percentage of `leased-in' and `leased-out' land in the total operational area, is meagre. It is found that marginal and small farmers in the irrigated village who entered into the tenancy market are doing so mostly through leasing out their land while farmers in the non-irrigated village are doing so through leasing in land. The reasons behind this type of tenurial relationship are found as following. (i) In the irrigated area marginal and small farmers found it profitable to lease out a part of their land as cost of cultivation is expensive due to exposition to new technology and also the payment of rent is ensured because the chance of crop failure is very minimum in this area, (ii) in the non-irrigated village as the cultivation mostly dependent on rain, land contract comes at the eve of the season, it is also found that farmers having small amount of land goes for `leased in' land as and when weather favours. In the survey year (1994-95) it is found that small farmers entered into

the leased in market as weather was favourable to the cultivating conditions.

f) IRRIGATED AREA[5]:

The distribution of irrigated area in both the villages during the year 1994-95 is shown in Table 5.f.

Table reveals that the total operated area is 85.52 hectares out of which 84.85 per cent is found to be under irrigation, while in the non-irrigated village the total operated area is 68.92 hectares out of which only 13.27 per cent is found to be under irrigation. Size group-wise distribution shows that in the irrigated village, 90.84 per cent of the total operated area of the medium farmers is irrigated. In the case of marginal and small farmers, the percentage of area irrigated of the total operated area is worked out as 82.23 per cent, 75.16 per cent respectively. In the non-irrigated village, irrigated area is found as 9.96 per cent in the case of marginal farmers, while the percentage is 14.32 per cent and 17.29 per cent in the case of small farmers and medium farmers respectively.

It can be concluded from the above observation that irrigated area comprises much larger in the irrigated village among all the size groups compared to their counterparts in the non-irrigated village.

g) ASSETS POSITION OF DIFFERENT SIZE GROUPS:

Distribution of value[6] of different assets among different size group is shown in Table 5.g.1 and 5.g.2.

In the irrigated village, the average value of assets among different size group is worked out as Rs.20,088.23, Rs.1,12,809.81, Rs.2,27,573.33 and Rs.4,49,516.67 for the land-less, marginal, small and medium farmers respectively. Land constituted the major part of the asset for all the land owning size groups which is calculated as 44.74 per cent of the total assets in the case of marginal farmers, 50.97 per cent of the total assets in the case of small farmers and 64.08 per cent of the total assets in the case of medium farmers. Next to it Houses[7] constituted 37.31 per cent, 33.22 per cent, 22.14 per cent of the total assets in the case of the marginal, small and medium farmers. In the case of landless farmers 79.50 per cent of the assets comprises of house value. Livestock which is common asset of every farmer irrespective of size group worked out as 18.30 per cent, 12.24 per cent, 10.39 per cent and 5.41 per cent of the total assets in the case of landless, marginal, small and medium farmers, respectively. Tools and machinery[8] comprises a significant part of the medium farmers which is worked out as 6.50 per cent of the total assets. In the case of small and marginal farmers, it is found as 4.31 per cent and 4.73 per cent of the total assets respectively.

In the non-irrigated village, like irrigated village, land constitutes a major part, it is 58.49 per cent and 56.59 per cent of the total assets in the case of medium and small farm size groups and 38.94 per cent in the case of marginal farmers. Houses constituted the highest portion of the assets in the case of landless and marginal farmers and it is worked out as 68.49 per cent and 40.68 per cent of the total assets respectively. In the case of small and medium farmers houses constitutes 29.04 per cent and 26.89 per cent of the total assets respectively. Livestock comprises 29.23 per cent, 17.12 per cent, 11.71 per cent and 9.46 per cent of the total assets in the case of landless, marginal, small and medium farmers, respectively. It is found that due to insufficient financial resources, the farmers in this village could not acquire technologically advanced tools and machineries, which comprises a meagre part of their assets and calculated as 02.38 per cent, 01.85 per cent, 03.09 per cent of the total assets in the case of marginal, small and medium farmers, respectively.

The above facts lead us to the conclusion that with regard to the value of assets under possession, the sample farmers of the irrigated village were in higher position than that of farmers in the non-irrigated village. The difference in the assets comes mainly due to land and houses. In the case of livestocks both the villages have similarity in the different size group, and it may be due to the fact of Government sponsored schemes such as IRDP (Integrated Rural Development Programme) and SC/ST Corporation loans, which aims to increase the asset level through

these, e.g. livestocks, small scale industry, etc. It is found that most of the sample borrower in the small size groups got institutional loans under the IRDP programmes and SC/ST Corporation loans. In the year 1994-95 the Commercial Bank supplied IRDP loans to 43 households in the non-irrigated village and 46 Nos. of households in the irrigated village.

h) CROPPING PATTERN:

Cropping pattern practised by the farmers provides the character of the agricultural economy and economic standard of the farmers who are dependent on agriculture as their principal source of income. Table 5.h.1 and 5.h.2 show the cropping pattern practised by the sample farmers.

Tables reveal the facts that paddy cultivation is the important among all size groups in both the villages. In the irrigated village both Rabi and late Khariff paddy are being sown. With the help of sustaianed irrigation sources they put a sizeable portion of their land in Aman paddy also, which is basically relied on winter rain or irrigation. Apart from paddy the farmers in the irrigated village also make use of their land in the cultivation of sisasum, vegetables and oil seeds. In the non-irrigated village, the cultivation is generally concentrated on summer rice locally known as bodo paddy, duration of which is less than other paddy. Farmers, are also practising Aush paddy who has the facility of seasonal bund or pond for which certain level of water is necessary. It is found that in the non-irri-

gated village farmers contributes a portion of their land in vegetables which can return back an income from the local markets.

It is found that across the village smaller the size group, the major portion of the land is engaged in paddy, which might be due to their urgent need of consumption, whereas the large[9] farmers with larger amount of land are going for other types of cultivation which can fetch a larger amount, although not immediately after cultivation.

i) CROPPING INTENSITY:

Cropping intensity is measured by the ratio of net cropped area to gross cropped area. It refers to area used for different crops in the full agricultural season, e.g. a farmer put his area in different crops, like as summer crop, winter crop, vegetables etc. The total area that has been put in different crop is termed as gross cropped area.[10] Cropping intensity is derived from gross cropped area divided by net cropped area (i.e. area actually cultivated). As evident from the advantage of the farmers in the irrigated village among different size groups, cropping intensity also shows a positive relation, i.e. higher the irrigated area in the village, higher the cropping intensity and vice-versa. In the irrigated village, cropping intensity (Table 5.i) is found as 186.32, 184.21, 210.82 in the case of marginal, small and medium farmers respectively and in the non-

irrigated village medium farmers are having largest cropping intensity i.e. 144.63 (Table 5.i). In the case of small and marginal farmers, it is worked out as 126.27 and 132.58 respectively.

A comparison of inter-farm difference in the intensity of cropping shows positive relationship between size of holding and intensity of cropping in both the villages, with an exception of small farmers in both the villages.

j) ADOPTION OF FARM TECHNOLOGY:

Information regarding the use of various inputs by the farmers helps to know the adoption of modern technology and compare the expenditure incurred and income could come therefrom.

Table 5.j.1 and 5.j.2 show the degree of using modern technology and inputs among the different size group of farmers in both the villages.

Table 5.j.1 reveals that in the irrigated village, a large quantity of farmers are using fertilizer and high yielding variety seeds while medium farmers in this village are using pesticides and modern implements in large proportion than the small size groups. It is found that 91.07 per cent and 73.33 per cent marginal and small farmers respectively are using fertilizer, while in the case of medium farmers, it is worked out as cent per cent. Out of the total 83.93 per cent and 80 per cent marginal

and small farmers, respectively, are using high yielding varieties. In the case of medium farmers, cent percent is using high yielding varieties. Farmers using pesticides are found as 66.07 per cent, 60 per cent, 91.66 per cent in the case of marginal, small and medium farmers respectively. Modern implements are found to be used by 32.14 per cent, 33.33 per cent, 83.33 per cent in the case of marginal, small and medium farmers respectively.

In the non-irrigated village, findings reflect that of all the inputs, fertilizer is quite common among all the size groups. In the case of marginal and small farmers using fertilizer is worked out as 62.90 per cent and 57.89 per cent, respectively. Of the total, 42.85 per cent medium farmers are using fertilizer. Practice of HYV seeds is restricted to 20.96 per cent, 26.32 per cent and 14.29 per cent in the case of marginal, small and medium farmers, respectively. Pesticides is found to be used by a major portion of medium farmers, i.e. 57.14 per cent, in the case of small and marginal farmers, it is found as 31.57 per cent and 20.96 per cent respectively. Using of modern implement is found in low scale except the medium farmers, of which 42.85 per cent used them, while 10.52 per cent small farmers also used some form of modern implements.

The above facts show that there is a significant difference between the farmers of two villages. The adoption of modern inputs is much wider and superior in the irrigated village than their counterparts in the non-irrigated village. It is observed

that in the irrigated village farmers having ensured irrigation use modern inputs at large scale because these enhance productivity and also take care of the soils. In the non-irrigated village, farmers are scared to invest much on the modern inputs due to vagaries of nature and without much care the average productivity level also found to be low, e.g. 12-15 maund of rice per kani[11] in the irrigated village and 6-10 maund of rice in the non-irrigated village, from the same kind of paddy.

k) COST OF CULTIVATION (C.O.C):

Farm expenditure can be divided into two parts: (i) non-cash components, and (ii) cash components. On the one hand, non-cash components comprising of seeds used from household sources, manures and family labour and own animal labour while cash components include seeds purchased from market, fertilizer, pesticides, irrigation charges, hired bullock and implements, hired labour. Here, to get an overall view of cost of cultivation,[12] non-cash components also is taken into value terms at the existing market rate (see appendix) of the same. Tables 5.k.1 and 5.k.2 show the distribution of average (per hectare) farm expenses among different size group of farmers in both the villages.

Tables show that in the irrigated village per hectare average cost of cultivation in the case of marginal, small and medium farmers are Rs.7,698.31, Rs.8091.33 and Rs.8,915.34, respectively. Among different inputs, hired labour constitutes

31.52 per cent, 29.95 per cent, 30.17 per cent of the total cost in the case of marginal, small and medium farmers, respectively. Next to it cost incurred for fertilizer constitutes a large portion of the cost of cultivation.

In the non-irrigated village, the average per hectare cost of cultivation is worked out as Rs.4,979.53, Rs.5814.57 and Rs.6,563.42 in the case of marginal, small and medium farmers, respectively. Here also hired human labour constitute a large portion of the cost of cultivation.

From the observed facts, it can be inferred that farmers of the irrigated village incurred a higher proportion of expenditure on fertilizers, pesticides, implements and machineries, compared to the farmers of non-irrigated village. This justifies the fact that farmers in the irrigated village have achieved relatively higher degree of intensity in the use of modern inputs than that of their non-irrigated counterparts.

1) GROSS FARM INCOME AND NET FARM INCOME:

Farmers with the available resources follow the cropping intensity and pattern to maximise their income level and net farm income will indicate the monetary benefits from all the investment decision undertaken by the farmers of different size groups in both the villages.

Gross farm income is arrived by multiplying the output of

different size groups by their respective weighted average of price (see apendix) which is collected from Agricultural Marketing Department, Govt. of Tripura and also at village level from the farmers for by-products, proudce of livestocks etc. The estimated cost of cultivation is substrated from the estimated gross farm income to arrive at net farm income.

The calculated per hectare gross farm income, cost of cultivation and net farm income among different size groups in both the villages are presented in Table 5.1.

In the irrigated village, per hectare net farm income among different size group is worked out as Rs.9,929.41 for marginal farm, Rs.8,403.86 for small farm and Rs.9,418.90 for medium farm. In the non-irigated village, it is calculated as Rs.4,162.19, Rs.4,088.80 and Rs.4,119.89 in the case of marginal, small and medium farmers, respectively.

It is evident from the above findings that each size groups in the irrigated village has earned a much higher net farm income than the farmers of the corresponding size group in the non-irrigated farmers. It supports the fact that use of modern inputs with irrigational facilities and higher cropping intensity have made the higher return from investment in the irrigated village than their counterparts in non-irrigated village. Another notable feature of the findings is that across the village, marginal farmers net income per hectare is higher than other size groups, which can be attributed to the fact that marginal and

small farmers are getting seeds, fertilizer, pesticides at subsidised government rate while medium farmers have to buy at market rate.

m) CONSUMPTION EXPENDITURE AND GROSS SAVINGS:

Table 5.m.1 and 5.m.2 present the consumption expenditure[14] incurred by the different size group of farmers in both the irrigated and non-irrigated villages. Consumption expenditure gives the picture of disposable income available with the farmer at the end of the season. From which he has to cover his next season's cost oı cultivation and also make repayment of loans. Consumption expenditure includes the expenditure on food, clothing, education, medical and social obligations, interest payment and luxury items (e.g. radio, cycle, other household durables etc.). Gross svaings in this analysis denotes the residium of gross income over consumption.

In the irrigated village, the average consumption expenditure per household for marginal, small and medium size groups worked out as Rs.10,163, Rs.17,712, and Rs.32,089, respectively. In the non-irrigated village the same is worked out as Rs.6,628, Rs.12,275 and Rs.17,333, respectively. This indicates that the average consumption expenditure in all the size groups is higher in the irrigated village compared to their counterparts in the non-irrigated village. Although, the average size of family is found to be smaller in the irrigated village (6.74) than that of non-irrigated village (7.04). It may be inferred from the facts

that the higher income realised by the farmers of irrigated village enabled them to achieve a better standard of living than the farmers in the non-irrigated village.

The average gross savings pattern in respect of different size group of farmers are shown in Table 5.m.3. In the irrigated village, the gross savings are worked out as Rs. (-)669.22, Rs.2,698.04 and Rs.24,136 in the case of marginal, small and medium farmers, respectively. In the non-irrigated village the average gross savings is found as Rs. (-)2,582.06, Rs.794.44, and Rs.7,680.69 in the case of marginal, small and medium farmers, respectively. This shows that like as gross income and consumption expenditure, gross savings also higher in the irrigated village. With respect to farm sizes, it is observed that savings ratio increases with the increase in farm size. In the non-irrigated village, savings constituted a negligible proportion in the small farms though the medium farmers could save some amount. Vagaries of nature was the main reason which made the farmers to follow the wide spread mono-culture of rice. As a consequence, they are left with negative or a little amount of savings with them.

n) ESTIMATION OF CREDIT GAP ACCORDING TO DIFFERENT ALTERNATIVES:

Like any other production, agriculture also needs different types of inputs to produce the agri-products. Credit also plays an active role as other inputs. It helps the farmers to cover the cost of cultivation and also a part of consumption in between

sowing and harvesting. To get it, farmers generally depend on two types of sources, e.g. institutional and non-institutional. The credit requirement in these analyses, based on two alternatives.[15] Gap is estimated on the basis of supply from the above mentioned sources and credit requirement, which in turn helps us to estimate how far agriculture is helped by institutional credit system and also the role played by non-institutional sources, who are usually charging a high rate of interest and put the farmers in a typical vicious cycle of indebtedness.

(1) **Alternative - one**

According to alternative-one, it is assumed that credit would be made available according to the savings of each size group of farmers, i.e. how much they could finance from their own source of income. It is also assumed that any shortfall in savings would also be provided to farmers, because it is observed that small farmers generally have negative savings, which in turn helps them to cover a part of their consumption expenditure. To arrive at savings, it is assumed that the farmer is having the gross income at the start of the season from this we have deducted the consumption expenditure incurred by him during the survey year, and arrived at the available money (i.e. savings) with him to finance the cost of cultivation, i.e. required credit.

GI - CE = (+S)

COC - (+S) = Cr

Cr - Cs = Cg

where, GI = gross income, CE = consumption expenditure,

COC = Cost of cultivation, (+S) = Savings (-ve or +ve)

Cr = Required credit, Cs = Credit supply,

Cg = Credit gap.

Table $5.n.1_a$ and $5.n.1_b$ show that credit requirements and credit gap that exists in the case of different size group of farmers in both the villages. In the irrigated village, credit requirements according to alternative-one are worked out as Rs.4,815.33, Rs.7,313.63, and Rs.3,204.37 in the case of marginal, small and medium farmers, respectively. It is found that although there are one rural branch of commercial bank and two primary agricultural credit societies, are covering both the villages, there was no supply of crop loan to the sample farmers in this village in the reference year. It is found that credit supply from non-institutional sources is at the tune of Rs.769.64, Rs.400.00 and Rs.833.33 on average to the marginal, small and medium farmers, respectively. Taking formal supply (crop loan) into account, the credit gap is found equal to the credit requirements in the different size group of farmers. On the other hand, taking non-institutional supply into account, the credit gap is found as Rs.4,045.69, Rs.6,913.63, and Rs.2,371.04, in the case of marginal, small and medium farmers, respectively. In the non-irrigated village, the credit requirements are estimated as Rs.4,785.90, Rs.6,880.79, and Rs.7,680.69, in the case of

marginal, small and medium farmers, respectively. In this village too, credit supply from institutional sources in the form of crop loan is found as nil. Credit supply from non-institutional sources, is found as Rs, 609.67, Rs.2,026.31, and Rs.1,428.57 on average in the case of marginal, small and medium farmers, respectively. The credit gap taking institutional supply into account is found as equal to the credit requirements in the case of different size group of farmers. On the other hand, taking the supply from non-institutional sources into account, the credit gap is found as Rs.4,176.23, Rs.4,854.48, and Rs.6,252.12, in the case of marginal, small and medium size group of farmers, respectively.

(2) Alternative - two

According to alternative - two, it is assumed that credit would be made available on the basis of different components of cost of cultivation. It is found that savings of the small and marginal farmers are not only insufficient to cover their cost of cultivation, but also they faced the hardship to cover their consumption expenditure and this is more acute in the case of marginal farmers. Keeping in mind the savings pattern, it is assumed that (i) credit would be made available equivalent to the full extent of cash and kind expenditure plus fifty per cent of the imputed value of family labour at market wage rate to the marginal and small farmers, (ii) credit would be made available to 75 per cent

of the cash and kind expenditure (excluding the cost of family labour) incurred by the medium farmers to this size group.

e.g. (i) in the case of marginal and small farmers

COC-FL = X

0.5 x FL = M

X + M = Cr

Cg = Cr-Cs

(ii) in the case of medium farmers,

COC-FL = X

0.75 x X = Cr

Cg = Cr-Cs

where, COC = Cost of cultivation

FL = Family labour (imputed cost at market wage rate)

X = Cash and kind expenditure

Cr = Credit requirement

Cs = Credit supply

Cg = Credit gap.

Table $5.n.2_a$ and $5.n.2_b$ portray the credit requirements and credit gap (per hectare) that exists according to alternative-two in both the villages. In the irrigated village, credit requirements for different size group of farmers are worked out on per hectare basis as Rs.7,168.83, Rs.7,552.71, and Rs.5,966.71, in the case of marginal, small and medium farmers, respectively. As on survey date, the supply of crop loan from institutional sources is found as nil. Credit supply from the non-institutional sources are worked

out as Rs.1,429.04, Rs.323.27, and Rs.271.73, for marginal, small and medium size group of farmers, respectively. Taking the credit supply from the formal sources (crop loan), the credit gap is estimated as equal to the credit requirements of the farmers in all the size groups. On the other hand, taking the credit supply from non-institutional sources, the credit gap is estimated as Rs.5,739.79, Rs.7229.44, and Rs.5,695.81 on per hectare basis in the case of marginal, small, and medium farmers, respectively. In the non-irrigated village, the credit requirements are calculated as Rs.4,163.15, Rs.5,093,33, and Rs.3,876.97 in the case of marginal, small and medium farmers, respectively. Taking supply of credit from the institutional sources, the credit gap is found as equal to the credit requirements. On the other hand, taking the supply of credit from the non-institutional sources, the credit gap is estimated as Rs.2,785.60, Rs.3,558.25, and Rs.3,267.22 in the case of marginal, small and medium size group of farmers, respectively.

From the above observed fact, it can be inferred that credit gap is high in the irrigated village compared to non-irrigated village, as it is evident from the earlier discussions that farmers in the irrigated village grown two crops or more while in the non-irrigated village farmers restricted them to one crop. According to size groups in both the alternatives, smaller size group of farmers are having more credit gap compared to the medium farmers in both the villages. It can be attributed to the

fact that smaller size group are having much less savings compared to the medium farmers in both the villages. But this is one side of mirror where farmers are not getting loan from the institutional sources, other side of the mirror tells how far the farmers are indebted and default in the institutional sources which restricted the formal sources to supply loan to defaulters. It is discussed in the next section, i.e. extent of indebtedness.

INDEBTEDNESS AND FARMERS

In the previous section, we have discussed the different type of costs incurred in the process of farming, the income generated from this and also the credit gap. Now it is prudent to see how far the farmers are involved in various credit agencies, i.e. institutional and non-institutional. We shall try to answer the following questions which generally come out from the indebtedness of farmers.

(a) Amount of loan borrowed from different sources, e.g. institutional and non-institutional at the end of survey year, i.e. May 1995.

(b) To what extent they are indebted to the institutional and non-institutional sources.

(c) How many of them are defaulters to the institutional and non-institutional sources.

o) AVERAGE INDEBTEDNESS:

Table 5.0 shows the distribution of borrower farmers among different size groups in both the villages. It indicates the

borrowed amount which is unpaid till the end of the survey period. Table reveals that 58 per cent of the total households are under debt in the irrigated village and 72 per cent of the total households are under debt in the non-irrigated village.

In the irrigated village, farmers under debt is maximum in the case of landless farmers and they constitute 70.58 per cent. In the case of marginal and small farmers found to be under debt is calculated as 64.28 per cent and 40 percent, respectively. Borrowers among the medium farmers is worked out as 33.33 per cent. Average amount borrowed is calculated Rs.3,083.33, Rs.3,669.44, Rs.7,266.66, Rs.32,500.00 in the case of landless, marginal, small and medium farmers, respectively.

In the non-irrigated village, percentage of borrowing households is worked out as 91.65 per cent, 67.74 per cent, 73.68 per cent and 71.42 per cent in the case of landless, marginal, small and medium farmers, respectively. The average amount borrowed by the borrower household is found as maximum in the case of medium farmers and worked out as Rs.9,800.00. In the other groups the average amount is calculated as Rs.3,701.45, Rs.3,767.14, and Rs.6,011.57 in the case of landless, marginal and small farmers, respectively.

From the above facts, it can be concluded that in the case of landless and marginal farmers in both the villages, a major portion of the total households are under debt. In the case of small and medium farmers the number of households under debt is

much larger in the non-irrigated village compared to the same category of farmers in the irrigated village. The average amount borrowed from different sources is found to be larger in the case of farmers in the irrigated village compared to the same category of farmers in the non-irrigated village.

p) SOURCE OF CREDIT:

Table 5.p.1 and 5.p.2 show the distribution of borrowed amount in the different institutions and non-institutional sources[16] among different size group of farmers.

Tables reveal that in the irrigated village, marginal and small farmers borrowed 33.63 per cent and 13.76 per cent of the total amount from the non-institutional sources, in the case of landless farmers, it is worked out as 24.32 per cent. In the co-operative structure, the influence of medium farmers is evident from their share of amount borrowed from this sources. In the case of medium farmers, amount borrowed stands at 92.31 per cent from the co-operative sources. Marginal and small farmers have borrowed 26.49 per cent and 38.99 per cent from the co-operative sources. The Commercial Banks contribution is largely in the disbursing of IRDP loans to the farmers, which accounted for 37.84 per cent, 32.55 per cent and 47.25 per cent of the total amount borrowed in the case of landless, marginal and small farmers, respectively.

In the non-irrigated village, non-institutional sources played a pivotal role in supplying loan. It accounted for 12.53 per cent, 23.89 per cent, 46.38 per cent and 20.41 per cent of the total loan of the landless, marginal, small and medium farmers, respectively. Commercial Banks contributed in a larger way in financing, which constituted 78.13 per cent, 58.41 per cent, 16.87 per cent and 48.98 per cent of the total loan of the landless, marginal, small and medium farmers, respectively. Contribution of co-operatives in the total amount borrowed by different groups calculated as 08.84 per cent, 10.12 per cent, 36.75 per cent and 30.61 per cent in the case of landless, marginal, small and medium farmers, respectively.

It can be observed from the above facts, that smaller size groups in both the villages took a large portion of their loan from the non-institutional sources, while larger size groups have more access to co-operative credit and others. In the case of commercial banks, it is financing the development projects more or less equally in both the villages. It also established the fact that there is a positive relation between borrowed amount from institutional sources and farm size in both the villages.

q) RATE OF INTEREST AND SIZE GROUPS:

Table 5.q.1 and 5.q.2 presents the distribution of borrowed amount according to rate of interest and size groups in both the irrigated and non-irrigated villages.

In the irrigated village, medium farmers borrowed 92.31 per cent of the total loan at the rate of 10-20 per cent. A considerable amount of borrowed loan of the landless and marginal farmers are borrowed in at an exhorbitant rate of interest (80-100 per cent) which is worked out as 16.22 per cent and 17.28 per cent of the total loan, respectively. In the case of landless, marginal and small farmers, 75.67 per cent, 59.05 per cent and 22.94 per cent of the total loan have been borrowed at the rate of below 10 per cent. The amount borrowed at the rate of 10-20 per cent in the case of marginal and small farmers stand at 15.14 per cent and 69.30 per cent of their total loan, respectively.

In the non-irrigated village, amount borrowed at the rate of 100-120 per cent by the landless, marginal and small farmers are found as 12.53 per cent, 23.89 per cent, 23.69 percent of the total loan respectively. Medium farmers borrowed 79.59 per cent of the total loan at the rate of 10-20 per cent and the rest at the rate below 10 per cent. In the case of marginal, small and landless farmers, the amount borrowed at the rate of below 10 per cent is calculated as 68.53 per cent, 35.55 per cent, and 87.47 per cent of the total loan, respectively. The small and marginal farmers also borrowed 18.07 per cent and 7.58 per cent of the total borrowed amount at the rate of 10-20 per cent. In the case of small farmers, amount borrowed at the rate of 40-60 per cent is worked out as 18.67 per cent and 3.02 per cent of the total amount borrowed.

In the light of above findings, it can be inferred that marginal, small and landless farmers borrowed a large amount of their loan at an exhorbitant rate while medium farmers did not have to face such rate, as their access to institutional credit is much more than other size groups. Between the villages, it is found that marginal and small size group of farmers in the irrigated village borrowed less amount of loan from the non-institutional sources compared to their counterparts in the non-irrigated villages. It is found that the rate of interest charged by the different non-institutional sources is generally exhorbitant in both the villages. A system of middle man who happens to be businessmen, politician, has been found in the non-irrigated village. They take money from the big landlord or money lender, for example, at 50 per cent and lends it out at 100 per cent rate of interest to the farmers. This may be the cause for higher rate of interest in the non-institutional market of non-irrigated village.

r) RATE OF INTEREST AND SOURCES OF CREDIT:

Table 5.r.1 and 5.r.2 show the distribution of borrowed amount according to rate of interest and institutional and non-institutional sources in both the villages.

In the irrigated village, it is found that money lender charged the highest rate of interest, and they supplied 61.31 per cent of the total non-institutional amount at the rate of 80-100 per cent, the rest of the amount is supplied at the rate of 40-60

per cent. Co-operatives supplied 26.24 per cent of the total amount of their loan at the rate of below 10 per cent and 73.66 per cent of the total loan supplied at the rate of 10-20 per cent. In the case of commercial banks 13.66 per cent of their total loan supplied at the rate of 10-20 per cent and 86.34 per cent of the total loan at the rate of below 10 per cent. Regional rural bank has supplied ~~cent~~ 100 per cent of their loan in the range of 10-20 per cent rate of interest. Although, relatives and others contribution in the total amount of loan is insignificant, they supplied 52.63 per cent of their total loan without any interest.

In the non-irrigated village, major portion of the institutional loans supplied by commercial banks and co-operatives. At the rate of below 10 per cent, co-operatives and commercial banks suplied their 53.92 per cent and 85.22 per cent of the total loan, respectively. Money lenders have a field day in this village, they supplied 69.36 per cent of their total loan at the rate of 100 per cent and above, 16.96 per cent at the rate of 40-60 per cent and 2.74 per cent at the rate of 60-80 per cent. In the range of 10-20 per cent, co-operatives supplied 46.08 per cent of their total loan, in this range, commercial banks and regional rural banks supplied 85.52 per cent and cent per cent of their total loan respectively.

It is observed that in both the villages, rate of interest charged by the non-institutional sources is exhorbitant, in any form. Different type of rate of interest charged by the non-

institutional sources are in terms of money, output, labour, for example, against one thousand rupees the debtor has to pay six maund of paddy in lieu of interest. The rate of interest becomes 100 per cent per annum taking paddy value at village level prices. Rate of interest paid through labour is found to be predominant in the non-irrigated village. It is interesting to note that debtor starts paying the rate of interest through labour service immediately after taking loan. In the irrigated village, rate of interest paid in terms of paddy is found be present in quite a few cases.

s) COLLATERALS:

Table 5.s.1 and 5.s.2 present the distribution of borrowed amount according to security[17] in different size groups.

In the irrigated village, borrowing without security is found in the case of landless, marginal and medium farmers which is worked out as 37.84 per cent, 26.49 per cent and 7.69 per cent of their total loan, respectively. In getting loan from different institutional agencies panchayat acts as security for the farmers, it constituted 37.84 per cent, 32.56 per cent and 43.58 per cent of the total loan of landless, marginal and small farmers, respectively. Medium farmers got their 92.31 per cent of the loan against mortgage of property, while small and marginal farmers get 42.66 per cent and 8.33 per cent of their loan, respectively, against mortgage of property. Personal security which basically includes hand written notes is used by money

lenders to give credit, it accounted for 24.32 per cent, 25.81 per cent and 13.76 per cent of the total loan in the case of landless, marginal and small farmers, respectively.

In the non-irrigated village, in the case of landless, marginal and small farmers, panchayat acts as security to get 78.63 per cent, 58.41 per cent and 16.86 per cent of their total loan respectively. Personal security accounted for 12.53 per cent, 23.89 per cent, 46.39 per cent and 20.41 per cent of the total loan of the landless, marginal, small and medium farmers, respectively. Mortgage of the property is used to get 7.59 per cent, 36.75 per cent and 79.59 per cent of the total loan of marginal, small and medium farmers, respectively.

In both the villages, it is found that small farmers are getting a large portion of their loan against personal security, which generally compelled them to pay a higher amount of interest, while land is used as a security by the large size groups which can fetch long term loans. It is found from the findings that farmers across the size groups in irrigated village could get a larger amount of loan against mortgage of property (read land). In the non-irrigated village, it is personal security and panchayat which accounted for the larger portion of loan.

t) USE PATTERN:

Generally, farmers are taking loan for different purposes

and sometimes they divert the amount to some other purposes for which it is originally borrowed or given by agencies. Taking the diversion of loan into account, the use pattern of borrowed amount is presented in Tables 5.t.1 and 5.t.2.

Table reveals that in the irrigated village, a larger portion of the loan has been used in agricultural activities, which is calculated as 24.86 per cent, 37.17 per cent,70.18 per cent and 80.79 per cent of the total loan of landless, marginal, small and medium farmers, respectively. In the live stock purchase, 18.92 per cent, 23.47 per cent, and 29.82 per cent of the total loan have been used by landless, marginal and small farmers, respectively. In the case of marginal and landless farmers, loans used for the home consumption and social obligation are found as 31.08 per cent, 25.14 per cent and 10.59 per cent, 11.56 per cent of the total loan, respectively. Land purchase accounted for 17.41 per cent and 19.23 per cent of the total loan of marginal and medium farmers.

In the non-irrigated village, loans used for agricultural activities is found as 22.1 per cent, 23.13 per cent, 42.17 per cent and 48.98 per cent of the total loan in the case of landless, marginal, small and medium farmers, respectively. Next to it come live stock purchases, loans used for this purpose is worked out as 17.73 per cent, 31.77 per cent, 32.53 per cent and 30.61 per cent of the total loan by landless, marginal, small and medium farmers, respectively. In the case of small farmers home consumption, social obligation, consumed a major portion of their

loan. It is found that in the case of landless and marginal farmers, home consumption and social obligation cornered 36.1 per cent, 24.07 per cent, and 23.57 per cent, 12.96 per cent respectively. For the purpose of land purchase, 9.17 per cent, 12.05 per cent and 20.41 per cent of the total loan have been used by marginal, small and medium farmers, respectively.

From the above facts of use pattern, it may be concluded that most of the loans used by large farm size groups in both the villages are in agricultural activities and live stock purchase while small farm groups used their loan in home consumption and social obligation besides above mentioned acitivities. It is found that while in the irrigated village, major portion of the loan is used in agricultural activities, in the non-irrigated village, it has been used generally in higher proportion in the home consumption and social obligation purposes which justifies the financial backwardness of the farmers of the non-irrigated village.

u) DEFAULTERS AND SIZE GROUPS:

Table 5.u.1 and 5.u.2 shows the distribution of defaulter in institutional or non-institutional sources among different size groups. Here a borrower if found to be defaulter in both the sources has been taken separately to get a clear picture of indebtedness in different institutional and non-institutional sources.

In the irrigated village, table reveals that cent per cent borrowers from medium farm size group are found to be defaulter in the institutional sources. In the case of marginal, small and landless farmers, 41.94 per cent, 75 per cent and 42.86 per cent, respectively are defaulters in the institutional sources. It is found that 57.14 per cent and 58.06 per cent of the landless and marginal farmers, respectively are defaulters in the non-institutional sources. In the case of small farmers 25 per cent found to be defaulters in non-institutional sources.

In the non-irrigated village, defaulters in the institutional sources are found as 53.85 per cent, 42.86 per cent, 30.77 per cent and cent per cent of the total defaulters in the case of landless, marginal, small and medium farmers, respectively. In the case of small farmers, they found to be more defaulter in non-institutional sources (69.23 per cent). Next to them 57.14 per cent marginal farmers and 46.16 per cent landless farmers are defaulters in non-institutional sources.

From the above analysis, it is found that the smaller the size group, the extent of defaulters is found to be large in the non-institutional sources while the opposite is true in the case of medium size groups in both the villages. In the case of smaller groups, it may be due to the dependency on non-institutional sources to overcome their frequent financial constraint. In the case of medium size groups, they became wilful defaulters as there is no pressure from the institutional sources

to repay the loans.

v) OVERDUES AND PERIOD OF DEFAULT:

Findings with regard to overdues according to period of default among different size groups, separately in the both the villages are presented in Table 5.v.1, 5.v.2, 5.v.3 and 5.v.4 .

Table 5.v.1 shows that landless farmers in the irrigated village are mostly defaulter within the period of less than one year which accounted for 22.15 per cent of the total overdues, largest portion of overdues (55.99 per cent) lies within the period of 5 years and above. Defaulter within the period of 2-3 years are having 21.86 per cent of the total overdues. In the non-irrigated village largest amount of overdues, i.e. 44.39 per cent lies with the period of 5 years and above, next to it 33.04 per cent overdues is due with a period of 2-3 years. It is found that 14.15 per cent and 8.42 per cent overdues lies within the period of less than one year and 4-5 years, respectively.

Table 5.v.2 reveals that in the irrigated village, 58.06 per cent defaulters of the marginal farmers are having 33 per cent of the overdues amount in the period of less than one year. Next to it 29.03 per cent defaulters accounted for 45.89 per cent overdues in the period of 5 years and above. Rest of the overdues are spread over as follows, 6.45 per cent having 8.56 per cent dues within 2-3 years, 3.23 per cent have 5.15 per cent overdues

within 3-4 years and 3.23 per cent defaualters have 7.15 per cent overdues within 4-5 years. In the non-irrigated village, 57.14 per cent defaulters having 26.18 per cent overdues in less than one year, 34.29 per cent defaulters have 58.84 per cent of overdues in the 5 years and above period. Rest of the overdues amount, 11.24 per cent and 3.7 per cent which comprises 5.71 per cent and 2.86 per cent defaulters lies within 3-4 years and 4-5 years, respectively.

Table 5.v.3 presents the overdues picture of the small farmers. In the irrigated village, 50 per cent defaulters having 49.59 per cent of the total overdues amount within the period of 3-4 years. It is found that rest of 50 per cent have 16.09 per cent and 34.32 per cent of the overdues amount within the period of less than one year and 5 years and above, respectively. In the non-irrigated village, largest amount of overdues, i.e. 38.19 per cent comprises of 15.38 per cent defaulters lies within the period of 5 years and above. Next to them 69.24 per cent defaulters having 31.11 per cent of the total overdues lies within less than one year period. Small farmers also having 7.69 per cent each defaualters having 16.93 per cent and 13.77 per cent of the total overdues within the period of 2-3 years and 3-4 years, respectively.

Table 5.v.4 shows that the medium farmers in the irrigated village have 66.67 per cent of the total overdues comprising 49.33 per cent of the defaulters within the period of 1-2 years. In the non-irrigated village, defaulters are spread over 33.3 per

cent each within the period of 1-2 years, 3-4 years and 5 years and above covering 62.37 per cent, 18.66 per cent and 18.97 per cent of the total overdues, respectively.

The above analysis suggests that in both the villages smaller the size group, higher the dues and chronic than the large size groups. It is important to note that most of the overdues lies within the period of above one year are having it with the institutions. It is found that most of the defaulters are having their overdues with respect to loans granted against various development projects, e.g. IRDP, SC/ST Corporation loans, which are meant to raise their asset level and to lift them above the poverty line. It is doubtful how many of them came over the specified line, as it is not supported by the repayment attitude. On the other hand, the same farmers are getting loans from non-institutional sources at an exhorbitant rate and paying it at regular interval.

w) RANGE OF DEBT:

Table 5.w.1 and 5.w.2 show the frequency distribution according to range of debt among different size group in both the villages.

In the irrigated village, the largest number of farmers are indebted within the range of Rs.5,000 and above, which is calculated as 40.38 per cent of the total indebtors. Next to it 19.23 per cent are indebted in the Rs.1000 and below range. Among the

different size groups, landless farmers found to be indebted largest within the range of Rs.5,000 and above (35.72 per cent). In this range other farmers are found as 32.26 per cent,75 per cent and cent per cent in the case of marginal, small and medium farmers, respectively.

In the non-irrigated village, 32.81 per cent of the total farmers are indebted in the range of Rs.5,000 and above. Among the size groups, 53.85 per cent and 25.71 per cent, landless and marginal farmers, respectively, are indebted within the range of Rs.5000 and above. In the case of small and medium farmers, it is found that 46.15 per cent small farmers are indebted within the range of Rs.1001-2000 and 66.67 per cent medium farmers are indebted within the range of Rs.3001-4000.

It is found that in both the villages, farmers indebted in the higher range are having it with institutional sources and also the higher size groups are much more indebted in these range, which makes us to conclude that although the large farmers have their access to institutional credit, they are not repaying it, which may be termed as wilful default.

From the above discussion, it is oberved that credit gap exists in both the villages and also the farmers in both the villages are indebted and defaulters in the institutional sources. In the absence of supply from formal sources, farmers used to go to the non-institutional sources, i.e. village level money lender; businessmen, etc. These non-institutional sources

in the process of supplying credit also involved the farmers in the other rural markets, e.g. land, labour, which leads to interlocking between credit, land and labour markets. This aspect has been studied in the next chapter.

TABLE-5 a.1 : DISTRIBUTION OF POPULATION AMONG DIFFERENT SIZE GROUP BY AGE AND GENDER

(IRRIGATED)

Size Group	AGE DISTRIBUTION						
	Male			Female			Total
	0-14	15-60	60 and above	0-14	15-60	60 and above	
Landless (0. Hect)	11	42	02	15	27	02	99
Marginal (lessthan 1 hect.)	44	132	09	42	118	05	350
Small (1-2 hect)	15	44	03	14	38	02	116
Medium (above 2 hect)	15	41	03	12	35	03	109
Pooled	85	259	17	83	218	12	674

Source: Household Survey 1994-1995

TABLE-5 a.2 : DISTRIBUTION OFPOPULATION AMONG DIFFERENT SIZE GROUP BY AGE AND GENDER

(NON-IRRIGATED)

	AGE DISTRIBUTION						
	Male			Female			Total
	0-14	15-60	60 and above	0-14	15-60	60 and above	
Landless (0.hect)	10	20	07	07	20	00	64
Marginal (lessthan 1 hect.)	40	158	23	52	123	11	407
Small (1-2 hect)	21	70	08	18	51	04	172
Medium (above 2 hect)	05	19	02	09	21	04	60
Pooled	76	267	40	86	215	19	703

Source: Household Survey 1994-1995.

TABLE-5.b.1 : DISTRIBUTION OF SAMPLE FARMERS AMONG DIFFERENT SIZE GROUP OF FARMERS BY LEVEL OF EDUCATION

IRRIGATED

LEVEL OF EDUCATION	SIZE GROUPS				
	Landless	Marginal	Small	Medium	Total
(i) Illeterate	08 (47.06)	07 (12.50)	02 (13 .33)	-	17
(ii) Primary Education (I-V)	08 (47.06)	16 (28.57)	04 (26.69)	01 (08.33)	29
(iii) High School (VI - X)	01 (05.88)	30 (53.57)	06 (40.00)	07 (58.33)	44
(iv) Secondary and above (XI and above)	00 (00.00)	03 (05.36)	03 (20.00)	04 (38.33)	10
Total	17	56	15	12	100

Source: Household Survey 1994-1995

Table : 5.b.2 : **DISTRIBUTION OF SAMPLE FARMERS AMONG DIFFERENT SIZE GROUPS BY LEVEL OF EDUCATION.**

NON-INTEGRATED:

LEVEL OF EDUCATION	SIZE GROUPS				
	Landless	Marginal	Small	Medium	Total
(i) Illeterate	08 (66.67)	14 (22.58)	02 (10.52)	-	24
(ii) Primary Education (I-V)	04 (33.33)	19 (30.65)	03 (15.79)	02 (28.57)	28
(iii) High School (VI - X)	00	25 (40.32)	12 (63.17)	04 (57.14)	41
(iv) Secondary and above (XI and above)	00	04 (06.45)	02 (10.52)	01 (14.29)	07
Total	12	62	19	07	100

Source: Household Survey 1994-1995.

TABLE : 5.c : DISTRIBUTION OF LAND OWNING HOUSEHOLDS BY SIZE GROUPS AND OPERATIONAL AREA (IN HECT.)

Size Groups	Irrigated			Non-Irrigated		
	No.of farmers(%)	Total area operated(%)	Average size	No.of farmers(%)	Total area operated (%)	Average size
Marginal (1 hect)	56 (67.47)	30.16 (35.27)	0.53	62 (70.45)	27.44 (39.82)	0.44
Small (1 - 2 hect)	15 (18.07)	18.56 (21.70)	1.23	19 (21.59)	25.08 (36.39)	1.32
Medium (2 hect)	12 (14.46)	36.80 (43.03)	3.06	07 (07.96)	16.40 (23.79)	2.34
Pooled	83	85.52	1.03	88	68.92	0.78

Source: Household Survey 1994-1995.

TABLE - 5.c.i CUMULATIVE FREQUENCY OF LAND HOLDINGS IN THE VILLAGE

IRRIGATED:

Size Groups	No.of households	Cumulated No. of households	Cumulated percentage	Land operated in hect.	Cumulated land operated in hect.	Cumulated percentage of land operated.
Marginal	56	56	67.47	30.16	30.16	35.27
Small	15	71	85.54	18.56	48.72	56.97
Medium	12	83	100.0	36.80	85.52	100.00

Gini Concentration ratio : 0.37

TABLE: 5.c.ii : CUMULATIVE FREQUENCY OF LAND HOLDINGS IN THE VILLAGE

NON-INTEGRATED:

Size Groups	No.of household	Cumulated No. of households	Cumulated percentage	Land operated in hect.	Cumulated land operated in hect.	Cumulated percentage of land operated
Marginal	62	62	70.45	27.44	27.44	39.82
Small	19	81	92.04	25.08	52.52	76.21
Medium	07	88	100.0	16.40	68.92	100.00

Gini Concentration ratio: 0.33

TABLE: 5.d AVERAGE SIZE OF FAMILY ACCORDING TO DIFFERENT SIZE GROUPS AND NO. OF EARNERS AND DEPENDENTS

Size Groups	(a) Irrigated				(b) Non-irrigated			
	Average size of family	Earners	Depen-dents	Depen-dency ratio	Average size of family	Earners	Depen-dents	Dependency ratio
Landless	5.82	1.71	4.12	2.41	5.33	1.66	3.66	2.20
Marginal	6.25	1.75	4.50	2.57	6.56	1.85	4.70	2.54
Small	7.73	1.73	6.00	3.46	9.05	2.94	6.10	2.07
Medium	9.08	2.16	6.91	3.19	8.57	2.42	6.14	2.53

Source: Household Survey 1994-1995.

TABLE: 5.e DISTRIBUTION OF LEASED IN AND LEASED OUT LAND AMONG DIFFERENT SIZE GROUPS (IN HECT.)

Size Groups	(a) Irrigated			(b) Non-irrigated		
	Total operational holding (average)	Leased in land (average)	Leased out land (average)	Total operational holding (average)	Leased in land (average)	Leased out land (average)
Marginal	30.16 (0.53)	4.64 (0.08)	3.12 (0.06)	27.44 (0.44)	7.20 (0.11)	4.15 (0.07)
Small	18.56 (1.23)	2.36 (0.15)	3.36 (0.22)	25.08 (1.32)	1.12 (0.06)	3.61 (0.19)
Medium	36.80 (3.06)	Nil	5.04 (0.42)	16.40 (2.34)	Nil	3.52 (0.50)
Pooled	85.52	7.00	11.44	68.92	8.32	11.28

Source: Household Survey 1994-1995.

TABLE: 5.f DISTRIBUTION OF AREA UNDER IRRIGATION AMONG DIFFERENT SIZE GROUPS (IN HECT.)

Size Groups	Irrigated			Non-irrigated		
	Total operational area	Area under irrigation	% to total	Total operational area	Area under irrigation	% to total
Marginal	30.16	25.19	82.23	27.44	2.73	9.96
Small	18.56	13.95	75.16	25.08	3.59	14.32
Medium	36.80	33.43	90.84	17.29	2.83	17.29
Pooled	85.52	72.57	8[illegible].85	68.92	9.15	13.27

Source: Household Survey 1994-1995

TABLE : 5.g.1 DISTRIBUTION OF ASSETS AMONG DIFFERENT SIZE GROUP OF FARMERS (AVERAGE)

Irrigated	ASSETS					per farmer (in Rs.)
Size	Land(%)	House(s)* (%)	Livestocks (%)	Tools and machineries (%)	Non-agri assets(%)	Total per farmer
Landless	-	15964.70 (79.50)	3676.47 (18.30)	-	441.76 (2.20)	20088.23 (100.00)
Marginal	50473.21 (44.74)	42080.35 (37.31)	13812.50 (12.24)	5336.61 (4.73)	1107.14 (0.98)	112809.91 (100.00)
Small	116000.00 (50.97)	75600.00 (33.22)	23640.00 (10.39)	9800.00 (4.31)	2533.33 (1.11)	227573.33 (100.00)
Medium	287500.00 (64.08)	99333.33 (22.14)	24266.67 (5.41)	29166.67 (6.50)	8416.67 (1.87)	449516.67 (100.00)

Source; Household Survey : 1994-1995

* Houses refers to the mud house, bamboo sheds, Tin sheds, buildings, Cattle house etc.

TABLE: 5.g.2: DISTRIBUTION OF ASSETS AMONG DIFFERENT SIZE GROUP OF FARMERS (AVERAGE)

Non-Irrigated — Per farmer (in Rs.)

Size	Land(%)	Buildings(%)	Livestocks(%)	Tools & Machineries (%)	Non-agri assets(%)	Total per farmer
		ASSETS				
Landless	-	11250.00 (68.49)	4800.00 (29.23)	-	375.00 (2.28)	16425.00 (100.00)
Marginal	27911.29 (38.94)	29159.67 (40.68)	12266.45 (17.12)	1708.87 (2.38)	630.64 (0.88)	71676.92 (100.00)
Small	91894.00 (56.59)	47157.89 (29.04)	19021.05 (11.71)	3005.62 (1.85)	1315.78 (0.81)	162394.34 (100.00)
Medium	161071.42 (58.49)	74000.00 (26.89)	26057.14 (9.46)	8500.00 (3.09)	5714.28 (2.07)	275342.84 (100.00)

Source: Household survey : 1994-1995.

TABLE: 5.h.1 CROPPING PATTERN FOLLOWED BY SAMPLE FARMERS AMONG DIFFERENT SIZE GROUP.

IRRIGATED — (in hect)

Size Groups	Aush	Bodo	Aman	Sisasum	Vegetables	Oilseeds	Total
			ITEMS				
Marginal	18.36	21.24	05.44	04.94	06.23	-	56.21
Small	09.56	12.88	03.17	02.38	04.53	01.67	34.19
Medium	23.91	25.52	09.88	07.75	06.55	04.01	77.62

Source: Household Survey 1994-1995.

TABLE : 5.h2 : CROPPING PATTERN FOLLOWED BY SAMPLE FARMERS AMONG DIFFERENT SIZE GROUP

NON IRRIGATED (in hects.)

Size Groups	ITEMS						
	Aush	Bodo	Aman	Sisasum	Vegetables	Oilseeds	Total
Marginal	09.27	18.32	-	02.07	06.72	-	36.38
Small	07.42	15.08	02.83	-	06.34	-	32.67
Medium	06.85	09.36	03.24	01.74	02.53	-	23.72

Source: Household Survey 1994-1995.

TABLE : 5.i INTENSITY OF CROPPING AMONG DIFFERENT SIZE GROUPS

Size Groups	(a) Irrigated			(b) Non-irrigated		
	Net cropped area (in hect.)	Gross cropped area (in hect.)	Cropping intensity	Net cropped area (in hect.)	Gross Cropped area (in hect.)	Cropping intensity
Marginal	30.16	56.21	186.32	27.44	36.38	132.58
Small	18.56	34.19	184.21	25.08	32.67	126.27
Medium	36.80	77.62	210.92	16.40	23.72	144.63
Pooled	85.52	168.02	196.46	68.92	92.77	134.61

TABLE : 5.j.1 ADOPTION OF FARM TECHNOLOGY AMONG DIFFERENT SIZE GROUPS (NO.OF FARMERS)

IRRIGATED:

Size Groups	INPUTS			
	Fertiliser (%)	Pesticides (%)	HYV (%)	Implements (%)
Marginal	51 (91.07)	37 (66.07)	47 (83.93)	18 (32.14)
Small	11 (73.33)	09 (60.00)	12 (80.00)	06 (33.33)
Medium	12 (100.00)	11 (91.66)	12 (100.00)	10 (83.33)
Pooled	74 (89.16)	47 (56.63)	71 (85.54)	34 (40.96)

Source: Household Survey 1994-1995.

TABLE : 5.j.2 : ADOPTION OF FARM TECHNOLOGY AMONG DIFFERENT SIZE GROUPS (NO.OF FARMERS)

NON-IRRIGATED:

Size Groups	INPUTS			
	Fertiliser (%)	Pesticides (%)	HYV (%)	Implements (%)
Marginal	39 (62.90)	13 (20.96)	13 (20.96)	-
Small	11 (57.89)	06 (31.57)	05 (26.32)	02 (10.52)
Medium	03 (42.85)	04 (57.14)	01 (14.29)	03 (42.85)
Pooled	53 (60.23)	23 (26.14)	19 (21.59)	05 (05.68)

Source: Household survey 1994 -1995

TABLE 5.k.1 DISTRIBUTION OF EXPENSES IN CASH AND KIND (IMPUTED COST) AMONG DIFFERENT SIZE GROUPS (PER HECTARE)

IRRIGATED:

Size Groups	Seeds		Ferti-liser	Manu-res	Pesti-cides	Irriga-tion charges	Bullock labour		Human labour		Total
	Cash	Kind					Owned	Hired	Family	Hired	
Marginal	484.98 (64.45)	256.06 (35.55)	920.21 (11.95)	656.06 (8.52)	298.34 (3.87)	476.33 (6.18)	665.93 (59.4)	455.09 (40.6)	1058.96 (30.38)	2426.35 (69.62)	7698.31
Small	512.07 (62.00)	313.87 (38.00)	1139.87 (14.09)	606.22 (7.49)	325.59 (4.02)	637.48 (7.88)	576.29 (54.59)	479.24 (45.41)	1072.24 (30.77)	2423.46 (69.23)	8091.33
Medium	570.54 (55.09)	465.08 (44.91)	1332.46 (14.95)	518.16 (5.81)	378.84 (4.25)	751.39 (8.43)	695.58 (55.71)	553.11 (44.29)	959.73 (26.29)	2690.45 (73.71)	8915.34

Source: House hold survey 1994-1995.

Note: Figures in braket indicate the percentage.

TABLE 5.k.2 DISTRIBUTION OF EXPENSES IN CASH AND KIND (IMPUTED COST) AMONG DIFFERENT SIZE GROUPS (PER HECTARE)

(in Rs.)

NON-IRRIGATED

Size Groups	Seeds		Fertiliser	Manures	Pesticides	Irrigation charges	Bullock labour		Human labour		Total
	Cash	Kind					Owned	Hired	Family	Hired	
Marginal	351.44 (59.69)	237.33 (40.31)	456.61 (09.35)	313.44 (06.29)	60.76 (01.22)	76.28 (01.53)	418.22 (61.94)	256.95 (38.06)	1632.76 (58.32)	1166.74 (41.68)	4979.53
Small	464.32 (62.27)	281.33 (32.73)	478.54 (08.23)	427.14 (07.34)	103.61 (01.78)	79.97 (01.38)	392.34 (45.78)	464.60 (54.22)	1442.48 (46.19)	1680.24 (53.81)	5814.57
Medium	527.42 (63.37)	318.26 (37.63)	580.85 (08.85)	549.82 (08.38)	134.47 (02.06)	71.20 (01.08)	412.36 (47.97)	447.18 (52.03)	1394.12 (39.58)	2127.74 (60.42)	6563.42

Source: Household survey 1994-1995.

Note: Figures in braket indicate the percentage.

TABLE 5.1. : DISTRIBUTION OF GROSS FARM INCOME AND NET FARM INCOME AMONG DIFFERENT SIZE GROUPS (PER HECTARE)

(a) Irrigated				(b) Non-irrigated			
Size Groups	Gross farm income	Operating cost	Net Income	Size groups	Gross farm income	Operating cost	Net income
Marginal	17627.72	7698.31	9929.41	Marginal	9141.72	4979.53	4162.19
Small	16495.19	8091.33	8403.86	Small	9903.37	5814.57	4088.80
Medium	18334.24	8915.34	9418.90	Medium	10683.31	6563.42	4119.89

TABLE: 5.m.1 CONSUMPTION PATTERN OF THE SAMPLE FARMERS BY SIZE GROUPS (PER FARMER)

IRRIGATED (in Rs.)

Size Groups	Food	Clothing	Education	Medical & Social oblg.	Interest payment	comfort & luxury	Total (per farmer)
			ITEMS *				
Marginal	7155	1025	425	723	560	275	10163
Small	12756	1650	650	1235	455	966	17712
Medium	18300	3835	2375	3560	350	3669	32089

* Amount has been given in round figure
Source: Household survey 1994-1995.

TABLE: 5.m.2 CONSUMPTION PATTERN OF THE SAMPLE FARMERS BY SIZE GROUPS (PER FARMER)

(NON IRRIGATED) (in Rs.)

Size Group	Food	Clothing	Education	Medical &Social oblg.	Interest payment	Comfort & luxury	Total (per farmer)
			ITEMS *				
Marginal	4390	823	215	450	625	125	6628
Small	8350	1230	365	625	1255	450	12275
Medium	12470	1550	650	780	1058	825	17333

* Amount has been given in round figure
Source: Household Survey 1994-1995

TABLE: 5.m.3 GROSS SAVINGS PATTERN OF DIFFERENT SIZE GROUPOF FARMERS (PER FARMER)

IRRIGATED (in Rs.)

Size Groups	Gross Income	Consumption Expenditure	Savings
Marginal	9493.78	10163.00	-669.22
Small	20410.04	17712.00	2698.04
Medium	56225.00	32089.00	24136.00

NON - IRRIGATED:

Marginal	4045.94	6628.00	-2582.06
Small	13072.44	12275.00	794.44
Medium	25029.46	17333.00	7696.46

Source: Household Survey 1994-1995.

TABLE 5.n.Ia CREDIT REQUIREMENT, CREDIT GAP ACCORDING TO ALTERNATIVE (i)

IRRIGATED (PER FARMER) (in Rs.)

Size Group	Cost of cultivation	Savings	Credit requirement	Credit Supply		Credit Gap	
				Formal*	Informal	Taking institutional supply	Taking non-institutional supply
Marginal	4146.08	-669.22	4815.33	Nil	769.64	4815.33	4045.69
Small	10011.67	2698.04	7313.63	Nil	400.00	7313.63	6913.63
Medium	27340.37	24136.00	3204.37	Nil	833.33	3204.37	2371.04

*only crop loan is considered for this study.

TABLE 5.n.Ib CREDIT REQUIREMENT, CREDIT GAP ACCORDING TO ALTERNATIVE (i)

NON IRRIGATED (PER FARMER) (in Rs.)

Size Group	Cost of cultivation	Savings	Credit requirement	Credit Supply		Credit Gap	
				Formal*	Informal	Taking institutional supply	Taking non-institutional supply
Marginal	2203.84	-2582.06	4785.90	Nil	609.67	4785.90	4176.23
Small	7675.23	794.44	6880.79	Nil	2026.31	6880.79	4854.48
Medium	15377.15	7696.46	7680.69	Nil	1428.57	7680.69	6252.12

*only crop loan is considered for this study.

TABLE 5.n.2a CREDIT REQUIREMENT, CREDIT GAP ACCORDING TO ALTERNATIVE (ii)

IRRIGATED (PER HECTARE)

Size Group	Cost of cultivation	Credit requirement	Credit Supply		Credit Gap	
			Formal*	Informal	Taking institutional supply	Taking non-institutional supply
Marginal	7698.31	7168.83	NIl	1429.04	7168.83	5739.79
Small	8091.33	7552.71	Nil	323.27	7552.71	7229.44
Medium	8915.34	5966.71	Nil	271.73	5966.71	5695.81

* only croploan is considered in this study.

TABLE 5.n.2b CREDIT REQUIREMENT, CREDIT GAP ACCORDING TO ALTERNATIVE (ii)

NON IRRIGATED (PER HECTARE)

Size Group	Cost of cultivation	Credit requirement	Credit Supply		Credit Gap	
			Formal*	Informal	Taking institutional supply	Taking non-institutional supply
Marginal	4979.53	4163.15	Nil	1377.55	4163.15	2785.60
Small	5814.57	5093.33	Nil	1535.08	5093.33	3558.25
Medium	6563.42	3876.97	Nil	609.75	3876.97	3267.22

*only crop loan is considered in this study.

TABLE 5.0 DISTRIBUTION OF BORROWER FARMERS AMONG DIFFERENT SIZE GROUPS

(a) Irrigated					(b) Non-irrigated				
Size Groups	No.of borrower household	% to total	Average borrowed amount		Size Group	No.of borrower household	% to total	Average borrowed amount	
			per borrower	per hh.				per borrower	per hh.
Landless	12	70.58	3083.33	2176.47	Landless	11	91.66	3701.45	3393.00
Marginal	36	64.28	3669.44	2358.92	Marginal	42	67.74	3767.14	2551.93
Small	06	40.00	7266.66	2906.66	Small	14	73.68	6011.57	4368.12
Medium	04	33.33	32,500.00	10833.33	Medium	5	71.42	9800.00	7000.00

* Household survey 1994-1995.

TABLE 5.P.1 DISTRIBUTION OF BORROWED AMOUNT IN DIFFERENT INSTITUTIONS AMONG DIFFERENT SIZE GROUPS

IRRIGATED (PER BORROWER) (IN Rs.)

Size Groups	Regional Rural Banks (%)	Co-operatives (%)	Commercial Banks (%)	Money lenders (%)	Relativees & Others (%)
Landless	--	4,666.66 (37.84)	4,666.66 (37.84)	1,000.00 (24.32)	--
Marginal	5,500.00 (08.33)	4,375.00 (26.49)	4,777.77 (32.55)	1,705.00 (25.82)	1,800.00 (06.81)
Small	Nil	8,500.00 (38.99)	10,300.00 (47.25)	3,000.00 (13.76)	Nil
Medium	Nil	40,000.00 (92.31)	--	--	10,000.00 (7.69)

Source: Household survey, 1994-1995.

TABLE 5.P.2 DISTRIBUTION OF BORROWED AMOUNT IN DIFFERENT INSTITUTIONS AMONG DIFFERENT SIZE GROUPS

NON IRRIGATED (PER BORROWER) (IN Rs.)

Size Groups	Regional Rural Banks (%)	Co-operatives (%)	Commercial Banks (%)	Money lenders (%)	Relativees & Others (%)
Landless	--	3,600.00 (08.84)	4,573.71 (78.63)	637.50 (12.53)	--
Marginal	6,000.00 (07.58)	5,433.33 (10.12)	6,601.42 (58.41)	1,181.25 (23.89)	Nil
Small	--	6,833.33 (36.75)	7,000.00 (16.87)	2,961.53 (46.38)	Nil
Medium	--	15,000.00 (30.61)	12,000.00 (48.98)	--	5,000.00 (20.41)

Source: Household Survey, 1994-1995.

TABLE : 5.q.1 DISTRIBUTION OF BORROWED AMOUNT ACCORDING TO RATE OF INTEREST AND SIZE GROUPS.

IRRIGATED (in Rs.)

Size Groups	Rate of Interest								
	Without interest	Below 10%	10-20%	20%-40%	40%-60%	60%-80%	80%-100%	100% and above	Total
Landless	--	28,000 (75.67)	--	--	3,000 (08.11)	--	6,000 (16.22)	--	37,000
Marginal	--	78,000 (59.05)	20,000 (15.14)	--	11,000 (08.33)	--	23,100 (17.48)	--	1,32,100
Small	--	10,000 (22.94)	27,600 (63.30)	--	5,000 (11.47)	--	1,000 (02.29)	--	43,600
Medium	10,000 (07.69)	--	1,20,000 (92.31)	--	--	--	--	--	1,30,000

Source: Household Survey 1994-1995
Note: Figures in braket indicate percentage.

TABLE : 5.q.2 DISTRIBUTION OF BORROWED AMOUNT ACCORDING TO RATE OF INTEREST AND SIZE GROUPS.

NON IRRIGATED (in Rs.)

Size Groups	Rate of Interest								
	Without interest	Below 10%	10-20%	20%-40%	40%-60%	60%-80%	80%-100%	100% and above	Total
Landless	--	35,610 (87.47)	--	--	--	--	--	5,100 (12.53)	40,716
Marginal	--	1,08,420 (68.53)	12,000 (07.58)	--	--	--	--	37,800 (23.89)	1,58,220
Small	--	29,500 (35.55)	15,000 (18.07)	--	15,500 (18.67)	2500 (03.02)	--	20,500 (23.69)	83,000
Medium	--	10,000 (20.41)	39,000 (79.59)	--	--	--	--	--	49,000

Source: Household survey, 1994-1995
Note: Figures in braket indicate percentage

TABLE 5.r.1 DISTRIBUTION OF BORROWED AMOUNT ACCORDING TO RATE OF INTEREST AND DIFFERENT INSTITUTIONS AND NON-INSTITUTIONS AMONG DIFFERENT SIZE GROUPS.

IRRIGATED (in Rs.)

Name of Institutions and non-institutions	Without interest	Below (10%)	10%-20%	20%-40%	40-60%	60%-80%	80%-100%	100% & above	Total
i) Co-operatives	--	49,000 (26.34)	1,37,000 (73.66)	--	--	--	--	--	1,86,000
ii) Regional Rural Banks	--	--	11,000 (100.00)	--	--	--	--	--	11,000
iii) Commercial Banks	--	67,000 (86.34)	10,600 (13.66)	--	--	--	--	--	77,600
iv) Money lenders	--	--	--	--	19,000 (38.69)	--	30,100 (61.31)	--	49,100
v) Relatives & others	10,000 (52.63)	--	9,000 (47.37)	--	--	--	--	--	19,000

Source: Household Survey, 1994-1995.
Note: Figures in bracket indicate percentage.

TABLE 5.r.2 DISTRIBUTION OF BORROWED AMOUNT ACCORDING TO RATE OF INTEREST AND DIFFERENT INSTITUTIONS AND NON-INSTITUTIONS AMONG DIFFERENT SIZE GROUPS.

NON IRRIGATED (in Rs.)

Name of Institutions and non-institutions	Without interest	Below (10%)	10%-20%	20%-40%	40-60%	60%-80%	80%-100%	100% & above	Total
i) Co-operatives	--	35,100 (53.92)	30,000 (46.08)	--	-	--	--	--	65,100
ii) Regional Rural Banks	--	--	12,000 (100.00)	--	--	--	--	--	12,000
iii) Commercial Banks	--	1,38,436 (85.22)	24,000 (14.78)	--	--	--	--	--	1,62,436
iv) Money lenders	--	10,000 (10.94)	--	--	15,500 (16.96)	2,500 (02.74)	--	63,400 (69.36)	91,400
v) Relatives & others	--	--	--	--	--	--	--	--	--

Source: Household Survey, 1994-95
Note: Figures in brackets indicate percentage

TABLE 5.S.1 DISTRIBUTION OF BORROWED AMOUNT BY SECURITY AND SIZE GROUPS

Irrigated (in Rs.)

Size Group	SECURITIES / COLLATERALS					
	Without Security (%)	Personal Security (%)	Mortgage of property(%)	Panchayat (%)	Others (%)	Total
Landless	14,000 (37.84)	9,000 (24.32)	--	14,000 (37.84)	--	37,000
Marginal	35,000 (26.49)	34,100 (25.81)	11,000 (08.33)	43,000 (32.56)	9,000 (06.81)	1,32,100
Small	--	6,000 (13.76)	18,600 (42.66)	19,000 (43.58)	--	43,600
Medium	10,000 (07.69)	--	1,20,000 (92.31)	--	--	1,30,000

Source: Household survey 1994-1995.

TABLE 5.S.2 DISTRIBUTION OF BORROWED AMOUNT BY SECURITY AND SIZE GROUPS

Non-Irrigated (in Rs.)

Size Group	SECURITIES / COLLATERALS					
	Without Security (%)	Personal Security (%)	Mortgage of property (%)	Panchayat (%)	Others (%)	Total
Landless	3,600 (08.84)	5,100 (12.53)	--	32,016 (78.63)	--	40,716 (100.00)
Marginal	16,000 (10.11)	37,800 (23.89)	12,000 (07.59)	92,420 (58.41)	--	1,58,220 (100.00)
Small	--	38,500 (46.39)	30,500 (36.75)	14,000 (16.86)	--	83,000 (100.00)
Medium	--	10,000 (20.41)	39,000 (79.59)	--	--	49,000 (100.00)

Source: Household Survey 1994-1995.

TABLE 5.t.1 DISTRIBUTION OF BORROWED AMOUNT ACCORDING TO USE PATTERN AMONG DIFFERENT SIZE GROUPS

IRRIGATED (in Rs.)

Size Groups	Agricultural activities (%)	Land Purchase (%)	Home consumption (%)	Social obligation (%)	Livestock purchase (%)	Total
Landless	9,200 (24.86)	--	11,500 (31.08)	9,300 (25.14)	7,000 (18.92)	37,000
Marginal	49,100 (37.17)	23,000 (17.41)	14,000 (10.59)	15,000 (11.36)	31,000 (23.47)	1,32,100
Small	30,600 (70.18)	--	--	--	13,000 (29.82)	43,600
Medium	1,05,000 (80.77)	25,000 (19.23)	--	--	--	1,30,000

Source: Household survey 1994-1995

TABLE 5.t.2 DISTRIBUTION OF BORROWED AMOUNT ACCORDING TO USE PATTERN AMONG DIFFERENT SIZE GROUPS

NON IRRIGATED (in Rs.)

Size Groups	Agricultural activities (%)	Land Purchase (%)	Home consumption (%)	Social obligation (%)	Livestock purchase (%)	Total
Landless	9,000 (22.1)	--	14,700 (36.1)	9,800 (24.07)	7216.00 (17.73)	40,716
Marginal	36,600 (23.13)	14,500 (09.17)	37,300 (23.57)	20,500 (12.96)	49,320 (31.17)	1,58,220
Small	35,000 (42.17)	10,000 (12.05)	--	11,000 (13.25)	27,000 (32.53)	83,000
medium	24,000 (48.98)	10,000 (20.41)	--	--	15,000 (30.61)	49,000

Source: Household Survey, 1994-1995.

TABLE 5.U.1 DISTRIBUTION OF DEFAULTERS AMONG DIFFERENT SIZE GROUPS

Irrigated

Size Groups	No.of defaulters	Institutional Agencies		Non-institutional Agencies	
		No.	% of total	No.	% of Total
Landless	14	06	42.86	08	57.14
Marginal	31	13	41.94	18	58.06
Small	04	03	75.00	01	25.00
Medium	03	03	100.00	--	--
T.T.	52	25	48.08	27	51.92

Source: Household survey, 1994-1995.

TABLE 5.U.2 DISTRIBUTION OF DEFAULTERS AMONG DIFFERENT SIZE GROUPS

Non Irrigated

Size Groups	No.of defaulters	Institutional Agencies		Non-institutional Agencies	
		No.	% of total	No.	% of Total
Landless	13	07	53.85	06	46.15
marginal	35	15	42.86	20	57.14
Small	13	04	30.77	09	69.23
Medium	03	03	100.00	--	--
T.T.	64	29	45.31	35	54.69

Source: Household survey 1994-1995

TABLE 5.V.1 CLASSIFICATION OF OVERDUES OF THE LANDLESS FARMERS ACCORDING TO PERIOD OF DEFAULT

IRRIGATED			NON IRRIGATED			(in Rs.)
Period of default	No.of defaulters (% to total)	Amount of overdues (% to total)	Period of default	No.of defaulters (% to total)	Amount of overdues (% to total)	
Less than 1 year	8 (57.14)	10580 (22.15)	Less than 1 year	6 (46.15)	7260.00 (14.15)	
1-2 Years	--	--	1-2 years	--	--	
2-3 Years	2 (14.29)	10440 (21.86)	2-3 years	3 (23.08)	16954.56 (33.04)	
3-4 years	--	--	3-4 years	--	--	
4-5 Years	--	--	4-5 years	1 (7.69)	4320.00 (8.42)	
5 Years and above	4 (57.14)	26740 (55.99)	5 years and above	3 (23.08)	22776.00 (44.39)	
TT	14 (100.00)	47760		13 (100.00)	51310.56	

Source: Household Survey 1994-1995.

TABLE 5.V.2 CLASSIFICATION OF OVERDUES OF THE MARGINAL FARMERS ACCORDING TO PERIOD OF DEFAULT

IRRIGATED			NON IRRIGATED			(in Rs.)
Period of default	No.of defaulters (% to total)	Amount of overdues (% to total)	Period of default	No.of defaulters (% to total)	Amount of overdues (% to total)	
Less than 1 year	18 (58.06)	36040 (33.25)	Less than 1 year	20 (57.14)	31780 (26.18)	
1-2 years	--	--	1-2 Years	--	--	
2-3 years	2 (6.45)	9280 (8.56)	2-3 Years	--	--	
3-4 Years	1 (3.23)	5580 (5.15)	3-4 years	2 (5.71)	13640 (11.24)	
4-5 Years	1 (3.23)	7750 (7.15)	4-5 Years	1 (2.86)	4540 (3.74)	
5 years and above	9 (29.03)	49750 (45.89)	5 years and above	12 (34.29)	71417 (58.89)	
Total	31 (100.00)	108390		35 (100.00)	121377	

Source; Household survey 1994-1995.

TABLE 5.V.3 CLASSIFICATION OF OVERDUES OF THE SMALL FARMERS ACCORDING TO PERIOD OF DEFAULT

(in Rs.)

IRRIGATED			NON IRRIGATED		
Period of default	No.of defaulters (% to total)	Amount of overdues (% to total)	Period of default	No.of defaulters (% to total)	Amount of overdues (% to total)
Less than 1 year	1 (25.00)	4800 (16.09)	Less than 1 year	9 (69.24)	15400 (31.11)
1-2 Years	--	--	1-2 Years	--	--
2-3- Years	--	--	2-3 Years	1 (7.69)	8380 (16.93)
3-4 Years	2 (50.00)	14798 (49.59)	3-4 Years	1 (7.69)	6820 (13.77)
4-5 years	--	--	4-5 Years	--	--
5 Years	1 (25.00)	10240 (34.32)	5 Years	2 (15.38)	18912 (38.19)
Total	4 (100.00)	29838	Total	13 (100.00)	49512

Source: Household survey, 1994-1995.

TABLE 5.V.4 CLASSIFICATION OF OVERDUES OF THE MEDIUM FARMERS ACCORDING TO PERIOD OF DEFAULT

(in Rs.)

IRRIGATED			NON IRRIGATED		
Period of default	No.of defaulters (% to total)	Amount of overdues (% to total)	Period of default	No.of defaulters (% to total)	Amount of overdues (% to total)
Less than 1 year	--	--	Less than 1 year	--	--
1-2 Years	2 (66.67)	38850 (49.33)	1-2 Years	1 (33.33)	12432 (62.37)
2-3 Years	1 (33.33)	39900 (50.67)	2-3 years	--	--
3-4 years	--	--	3-4 Years	1 (33.33)	3720 (18.66)
4-5 years	--	--	4-5 years	--	--
5 years and abcve	--	--	5 years and above	1 (33.33)	3780 (18.97)
Total:	3 (100.00)	78750		3 (100.00)	19932

Source: Household survey 1994-1995.

TABLE 5.W.1 FREQUENCYDISTRIBUTION ACCORDING TO RANGE OF DEBT AMONG DIFFERENT SIZE GROUPS

Irrigated

Range of Debt (in Rs.)	No.of Landless farmers (%)	No.of Marginal farmers (%)	No.of Small farmers (%)	No.of Medium farmers (%)	Total (%)
1000 and below	04 (28.57)	06 (19.36)	--	--	10 (19.23)
1001 - 2000	01 (07.14)	05 (16.13)	--	--	06 (11.54)
2000 - 3000	03 (21.43)	04 (12.90)	--	--	07 (13.46)
3001 - 4000	--	02 (06.45)	--	--	02 (03.85)
4001 - 5000	01 (07.14)	04 (12.90)	01 (25.00)	--	06 (11.54)
5001 - and above	05 (35.72)	10 (32.26)	03 (75.00)	03 (100.00)	21 (40.38)
Total	14 (100.00)	31 (100.00)	04 (100.00)	03 (100.00)	52 (100.00)

Source: Household survery 1994-1995.

TABLE 5.W.2 FREQUENCY DISTRIBUTION ACCORDING TO RANGE OF DEBT AMONG DIFFERENT SIZE GROUPS

(Non-Irrigated)

Range of Debt (in Rs.)	No.of Landless farmers (%)	No.of Marginal farmers (%)	No.of Small farmers (%)	No. of Medium farmers (%)	Total (%)
1000 and below	04 (30.77)	02 (5.71)	--	--	06 (9.38)
1001 - 2000	01 (7.69)	12 (34.29)	06 (46.15)	--	19 (29.69)
2001 to 3000	--	05 (14.29)	03 (23.08)	--	08 (12.50)
3001 - 4000	01 (7.69)	--	--	02 (66.67)	03 (4.69)
4001 - 5000	--	07 (20.00)	--	--	07 (10.93)
5001 and above	07 (53.85)	09 (25.71)	04 (30.77)	01 (33.33)	21 (32.81)
TOTAL	13 (100.00)	35 (100.00)	13 (100.00)	03 (100.00)	64 (100.00)

Source : Household Survey 1994-1995.

NOTES AND REFERENCES

1) Sample households have been classified into four groups, landless, marginal (<0 - 1 Hec.), small (<1 - >2 Hec.) and medium (<2 - >4Hec.). Landless farmers in this study refers to pure tenants (working as tenant on a meagre portion of land) and pure agricultural labourers and they have been also treated as one size group.

2) To understand the skewedness, please see Gini Concentration-ratio worked out from Tables 5.c.i and 5.c.ii in appendix.

3) Dependency ratio refers to number of dependents per earner, i.e. No. of dependents/No. of Earners.

4) In this chapter sometimes marginal and small size group of farmers together have been termed as smaller size groups and medium size groups termed as larger size groups for the sake of comparison.

5) In both the villages it is found in quite a few cases farmers having a part of land under irrigation (wet land) also other part of land under rain-fed (dry land) cultivation. To get the overall picture of the villages and also of the size groups, we calculated the irrigated area out of the total operated area in the village or size group.

6) Value of assets are calculated in monetary terms and it refers to the survey period 1994-95. Value of assets have been worked out after consulting the sample farmers, as for example, how much he would expect at market rate for a particular asset.

7) Houses referred to mud houses, Bamboo sheds, buildings, cattle houses etc.

8) Tools and machineries includes tractors, pump sets, cold rushers, seed drills, threshers, weeder, etc.

9) Small size and marginal size groups termed as smaller size group and medium size group termed as larger size group.

10) For example, if one hectare of land is put into 3 crops in the survey year, the gross cropped area will be 3 hectares.

11) One hectare = 6.25 kani.

12) Amount of fertilizer, pesticides and other inputs used, known through household survey.

13) Byproducts are, for example, Chaff, Straw, Wooden stick from jute etc.

14) To calculate the consumption expenditure, extremities have been excluded, e.g. a large amount spent on marriage, sending ward outside for study, spending large amount on a family patient, etc.

15) Methods of estimating the credit requirements are developed from (i) D.K. Desai's paper "Institutional Credit Requirements for Agricultural Production - 2000 A.D.", Indian Journal of Agricultural Economics, Vol.43, No.3, July-Sept. 1988, (ii) Reserve Bank of India's Committee on Agricultural Credit (1989) and (iii) Researcher himself.

16) Non-institutional sources, referred to landlord, employers, money lenders etc. In this chapter, all the three have been clubbed under the heading of money lender.

17) (i) Personal Security refers to Security against livestocks,

in some cases, jewelleries, standing crops, and also sometimes labour days, (ii) without security refers to loan taken by labourer, tenants from their landlord. Loans taken from relatives are also without any security, (iii) Panchayat acts as a third party in the case of IRDP or SC/ST Corporation loan.

C H A P T E R - VI

INTERLINKAGES BETWEEN LAND, LABOUR AND CREDIT MARKETS

INTERLINKAGES BETWEEN LAND, LABOUR AND CREDIT MARKETS

It is ~~by now~~ generally admitted that imperfection in the various section of rural market, e.g. land, labour and credit leads to interlinakges of different markets. Imperfection comes from uncertainty , absent markets, transaction cost. Take for example, the most prevailing form of rural market relationship, i.e. tenancy or share cropping. In this relationship usually farmer with no land or small parcel of land goes for tenancy contract with the landlord, in this market he can find a ready market where he can use his family labour, draught animal etc. and earn, for which otherwise no market is available, and also reduce the uncertainty attached to the marketability of these factors. In the process, the tenant also takes loan/credit for production or consumption purpose from the landlord-cum-money lenders which helps him to avoid the arms length of procedure to procure loan from the organised market sources and also reduce his transaction cost. Bardhan[1] in his lucid model shows that how a tenant and a landowner maximise their share of earnings. In his model, he shows that in the `lean season' as wage labour market does not clear the labour market, tenant faces the potential risks if he decides to offer himself in the wage labour market, whereas in the `peak season' wage is competitively determined. So the landlord and tenant maximises their income with respect to three variables, e.g. the amount of land to lease out, the amount of labour to use on self-operated farm by landlord and

labour-intensity per hectare on the leased-in area by the tenant. In these interlinakges, one important fact is observed that when these markets are themselves imperfect, it is quite natural that terms and conditions prevailing in one market would be related to terms and conditions in other markets.

The theoretical debate on the nature and extent of these interlinkages was first initiated by Amit Bhaduri[2] in Indian context. He argues that given imperfect land and credit markets, landlord-cum-money lender who yields monopoly power, interlinking transaction increases the power of the landlord and gives him greater scope of exploitation of the tenant in both the markets. He further argues that the landlord may not induce the farmers to use innovative yield increasing method, because as this would increase the income of the tenant who in turn will borrow less from the landlord. In its criticism, Griffin,[3] Newbery,[4] Ghosh and Saith,[5] Bhardwaj[6] put forward the argument that if the landlord is having monopoly power in both the land and credit markets, then he can put the share of output for the tenant at a lower level, so that he can be perpetually indebted, or in other words, landlord need to enjoy the monopoly in one market to keep the tenant in disadvantageous position. They also argued that restriction of technical progress is rather a weak proposition, because if the landlord can prevent the use of innovative methods, he can easily increase his rental share through using high-yielding methods. Srinivasan[7] conclusively shows that if the tenant maximises the standard intertemporal welfare function of a discounted stream of utility from consumption, then borrowing

cannot be an inferior good at an unchanging pure rate of discount and interest and if the rate of discount exceeds the interest rate, the tenants borrowing will actually increase with the increasing yeild in production. In this context, Newbery[8] correctly emphasised that if the landlord yields monopoly power in both the land and credit markets, then he can as well alter terms of tenancy (or rental share) in his favour to gain from the improved technology.

In the light of above debate, an attempt has been made to study the extent and nature of interlinkages between different markets, viz. land, labour and credit operating in the rural economy of Tripura, on the basis of survey of two villages, (1) irrigated village, i.e. the developed one which is exposed to new technology and (2) non-irrigated village, i.e. the backward one which is adopting the traditional method of cultivation. To arrive at a clear picture of the linkages between different markets, the analysis of this chapter is divided into different aspects of the rural agricultural market, e.g. (a) land market, (b) tenancy market, (c) labour market, (d) (i) credit and tenancy (ii) credit and labour, (e) (i) tenancy and rate of interest (ii) labourer and rate of interest, (f) percentage of linkages between different markets.

As we have already stated that 200 households (100 from each village) comprising different group of farmers, e.g. landless, marginal, small and medium have been taken for study. For the sake of simplification, farmers have been grouped here as land-

less and landed households. Of them, how many entered into different markets, e.g. land, labour and credit, and also the terms and conditions prevailing in these markets have been analysed under different heads.

A. LAND MARKET:

Table 6.A.1 and 6.A.2 show the households that entered into the land market through `leased-in', `leased-out', `girbi-in' or `girbi-out' (concept of girbi market is discussed in Sec. E, chapter V). It is found that in the irrigated village all the surveyed landless households, i.e. cent per cent entered into the tenancy market (share cropping), comprising an area of 7.76 hectares and 5.88 per cent entered into the `girbi market'. In the case of land owning households, 33.34 per cent of the total, entered into the `leased-in' market, comprising an area of 6.20 hectares, of them maximum proportion is found to be from marginal group of farmers, 24.09 per cent of the total households leased-out a certain portion of their land and the area involved in the `leased-out' market is found as 9.44 hectares. It is found that 3.61 per cent of the total land-owning household entered into girbi-in market and 7.22 per cent entered into the girbi-out market.

In the non-irrigated village, 66.66 per cent of the sample landless farmers went into the tenancy market through `leased-in' land which involved an area of 3.56 hectares. Of the total land owning households, 31.95 per cent entered into the `leased-in'

market, comprising an area of 7.56 hectares and 18.18 per cent entered into the ` leased-out' market, which involved an area of 6.28 hectares. In the girbi market, 32.95 per cent land owning households entered into the `girbi-out' market, comprising an area of 5.03 hectares and 5.68 per cent also took leased in land.

From the above findings, it can be concluded that tenancy is not a predominant feature in both the villages, when we consider the area involved in these markets. It is observed that tenancy market is centered around landless and small size group of landed farmers in both the villages. It is also found that girbi market which reflects the direct linkages between land and credit markets is more prevalent in the backward village. The main reason behind this is found as small size group of farmers who starved off collaterals to get credit at their urgent need, found it to be easy to get money to meet their consumption needs in the lean season. As some cases suggest that once they took loan giving away their small parcel of land, it becomes difficult for them to repay the loan and get back the land to their possession.

B. TENANCY MARKET:

Table 6.B.1 and 6.B.2 show the distribution of household who entered into the tenancy market through `leased-in' and `leased-out' land in both the villages. From the sample households, we could trace 114 households comprising landless and landed households who entered into the tenancy market. It is found that majority of the tenants are from landless and small size groups.

As we have seen in the previous chapter asset position of the landless and small farmers is poor, it does not give enough resources to them to put them in bargaining position vis-a-vis the landlord, and rendered them to accept the terms and conditions, which are in favour of the lessor. For example, a landless or a small farmer entered into the tenant market has to depend upon the landlord for land, loan for consumption needs in the lean season, loan for buying inputs and in the process has to accept the rental share asked by the landlord. This low bargaining power push them to exploitative terms and conditions and this is more pervasive in the backward village compared to its counterparts in the irrigated village due to uncertainty in production.

It is found that there are six types of tenurial arrangements are prevailing in both the villages, e.g. share of product is 50:50 and 75:25[9] and in these, in some cases cost of cultivation is borne by the tenant, in some cases cost of cultivation is borne by the lessor and in a few cases cost of cultivation is found to be shared by both the tenant and lessor. Of them the most burdensome for the landless and small farmers is found to be the cases where share of product is 50:50 and the cost of cultivation is also borne by the tenant.

Table reveals that in the irrigated village 70.59 per cent landless tenants are associated with 50:50 crop-sharing and 29.41 per cent with 75:25 crop-sharing. Of them 58.33 per cent of the 50:50 type, landless tenants are bearing the cost of cultivation (henceforth `COC') by their own, 33.33 per cent are getting `COC'

from their lessor. In the case of 75:25 type landless tenant, 60 per cent borne the `COC' by their own and 40 per cent borne the `COC' with the help of lessor. It is found that 68.75 per cent landed households that entered into the tenurial engagement are associated with 50:50 type crop-sharing and 31.25 per cent are with 75:25 type of crop-sharing. Of them 63.64 per cent landed tenants of 50:50 type borne the COC by their own and 21.21 per cent got their COC from the lessor. In the case of 75:25 type landed tenant households 80 per cent borne the COC by their own and 20 per cent are meeting the COC with the help of the lessor.

In the non-irrigated village, all the landless and landed households that entered into the tenurial engagement are associated with 50:50 type crop-sharing. In the case of landless tenants 75 per cent borne the COC by their own and 25 per cent meeting it with the help of lessor. It is found that 80.44 per cent landed households that enetered into the tenancy market have to bear the COC by their own, 6.52 per cent getting it from the lessor and 13.04 per cent meets it with share from the lessor.

From the above discussion, it is clear that the most unfavourable terms of tenancy contract is 50:50 basis where the cost of cultivation has to be borne by the tenant. It is observed from the above stated facts that while most of the landless and landed tenants in the non-irrigated village are associated with this type of tenurial arrangements which is much more exploitative than the other existing forms, the tenants in the irrigated village are facing less unfavourable terms and conditions in

comparison to the tenants in non-irrigated village. For example, a farmer following 50:50 type of sharing arrangement with his own share of COC is getting less than half of his produce when he deducts his cost of cultivation from his gross income and also to bear the cost of cultivation again he goes to the landlord[10] or money lender to arrange money (for which generally he has been paying an exhorbitant rate of interest) to meet his cost of cultivation. It can be concluded from the above facts that landlords are much more in command in general and in particular in the case of non-irrigated village.

C. LABOUR MARKET:

Table 6.C.1 and 6.C.2 present the distribution of households who entered into the labour market. Here, two kinds of labour have been found. One is working as casual labour who works at market wage rate on daily basis and other one is semi-attached labour who works for maximum two employers or working as labourer for the landlord throughout the season for whom he also acts as tenant.

In the irrigated village, table shows that 51 households entered into the labour market. In the case of landless house-holds 64.71 per cent working as casual labour and 35.29 per cent working as semi-attached labour. Of the semi-attached labourers 66.67 per cent working for maximum two employers and 33.33 per cent working as labourer-cum-tenants to the landlords. It is found that 85.29 per cent of the landed households that entered

into the labour market are working as casual labourer and 14.71 per cent working as semi-attached labourer.

In the non-irrigated village, 60 households entered into the labour market. It is found that 41.67 per cent landless labourer are working as casual labour and 58.33 per cent as semi-attached labourer. Of the semi-attached landless labourer 42.86 per cent working for maximum two employers and 57.14 per cent working as tenant-cum-labourer to the landlords. In the case of landed labourer 56.25 per cent working as casual labourer and 43.75 per cent working as semi-attached labour. Of the semi-attached landed labourer, 66.67 per cent are working for maximum two employers and 33.33 per cent are working as tenant-cum-labourer to the landlord.

From the above findings, it is observed that labourer across the size groups are working as casual labour in the irrigated village than the labourer in the non-irrigated village. The following causes may be attributed to the above situation. (i) work-availability is much more in the irrigated village because the farmers in this village go for various type of crops through-out the season while in the non-irrigated village farmers re-stricted themselves mostly in one crop, (ii) labourers in the non-irrigated village go for credit which they are unable to repay in time, so they repay it through working out for the landlord-cum-money lender, (iii) non-availability of government-sponsored work programme in the lean season makes them to depend upon work given by the landlords for various purposes such as

cattle feeding, wood cutting, maintenance work of the house, poultry farming etc. So to get uninterrupted agriculture work in the non-irrigated village is not always possible.

D. CREDIT MARKET:

(i) Credit and Tenancy:

Table 6.D.i.1 and 6.D.i.2 reflect the distribution of tenants according to their association in the credit market,during the survey year, i.e. 1994-95. It may be noted here that infcrmations related in this regard are centered around lessee only (i.e. landless and landed) in both the villages.

In the irrigated village during survey year, it is found that 52.94 per cent landless tenant took credit from the non-institutional sources and 57.14 per cent landed tenant also took credit from the same sources. In the case of landed tenant 10.72 per cent also get loan from institutional sources under the IRDP programmes. Distribution according to different non-institutional sources, shows that 55.56 per cent landless tenant took credit from the lessors and in the case of landed tenants percentage of tenants took credit from lessor is worked out as 31.25 per cent and from money lender, it is 68.75 per cent.

In the non-irrigated village, it is found that 62.50

per cent landless tenant and 41.38 per cent landed tenant took credit from the non-institutional sources. Distribution of tenant according to different non-institutional sources reveal that 80 per cent of the landless tenants who took credit from non-institutional sources got it from the lessors and 20 per cent from money lenders. In the case of borrower landed tenants 66.67 per cent took credit from lessors and 33.33 per cent took it from money lenders.

From the above observed facts, it is found that percentage of landless tenants took credit from non-institutional sources is much more compared to landed tenants in both the villages and incidence of credit fron lessor is much higher for the tenants in non-irrigated village than their counterparts in the irrigated village. The reasons behind that found as, landless farmers have little to offer as collateral to obtain loan, so they go to obtain loans from the lessor, against the standing crop or their labour. In turn the lessor having monopoly power in the credit market charged a rental share which is higher than the existing norms and also offered a wage rate which is lower than the market wage rate. For example, cases have been found[11] where farmers took loan from the landlord-cum-lessor starts repaying the interest in the form of labour service at a rate fixed by the landlord, e.g. Rs.30/- per day, when the market wage rate existing is Rs.45-50 and also share the crop from his own share in lieu of interest at the end of season. It is found that this type of cases are found to be

much more prevailing in the backward village due to restricted credit and labour market, which does not allow the farmers to go to the next landlord-cum-creditor-cum-employer, if the first one charges higher.

(ii) Labour and Credit:

Table 6.D.ii.1 and 6.D.ii.2 show the distribution of agricultural labourer households according to incidence of credit from different sources during the survey period, i.e. 1994-95. Here for the sake of study, non-institutional sources have been divided into three groups, viz., employer, employer-cum-lessor and money lender. Table reveals that in the irrigated village out of 17 landless agricultural labourer 52.91 per cent took credit from non-institutional sources. It is found that 33.33 per cent, 22.22 per cent, and 44.44 per cent got it from employer, employer-cum-lessor and money lender respectively. In the case of landed agricultural labourer, 73.52 per cent took loan from different sources. Of them, 88 per cent from non-institutional sources and 12 per cent from institutional sources. It is found that 40.91 per cent of landed agricultural labourer who took loan from non-institutional sources, borrowed it from employer and 59.09 per cent from money lender.

In the non-irrigated village, 58.33 per cent and 83.33 per cent landless agricultural labourer and landed agricultural labourer, respectively, took loan from different

sources. It is found that of the borrower agricultural landless labourer, 28.57 per cent took loan from employer, 42.86 per cent and 28.57 per cent took loan from employer-cum-lessor and money lender, respectively. In the case of landed agricultural labourer, 34.21 per cent of the borrowers who took loan from non-institutional sources got it from employer, 10.53 per cent from employer-cum-lessor and 55.26 per cent from money lenders.

From the above findings, it can be concluded that incidence of credit from employer-cum-lessor is much more in the non-irrigated village than their counterparts in the irrigated village. It is due to the fact that labourer in the non-irrigated village could not get regular work, has to depend upon his employer or employer-cum-lessor to get loan for consumption and other social and family obligation (e.g. medical, marriage, etc.) because with his meagre asset base (as has been discussed in the asset position in the previous chapter) could not offer any collateral asked by the money lender. On the other hand, the employer-cum-lessor or employer taking his labour as collateral gives him loan to sustain at his dire needs.

E. RATE OF INTEREST:

(i) Tenancy and Rate of Interest:

Table 6.E.i.1 and 6.E.i.2 show the distribution of

tenant-cum-borrower households according to rate of interest, they are paying for their loan to different institutions and non-institutional sources. It is important to see that how much they are getting exploited through rate of interest. Here, we have converted different kinds of rate of interest (e.g. a certain amount of produce against money or labour in place of money) to money value to get a clear picture.

In both the villages, loan issued by the organised sector, i.e. institutional sources charged a nominal rate of interest of 8-10 per cent. In the following section, we will discuss the rate of interest charged by different non-institutional sources such as lessor, money lenders etc.

Table reveals that in the irrigated village 44.44 per cent landless tenant took credit within 50-60 per cent rate of interest, 55.56 per cent got credit within 80-100 per cent rate of interest. In the case of landed tenants 52.63 per cent got their credit against 80-100 per cent rate of interest and 31.58 per cent took credit against 50-60 per cent rate of interest.

In the non-irrigated village, it is found that cent per cent landless tenant got their loan against above 100 per cent rate of interest, in the case of landed tenants all the borrower got their loan against 80-100 per cent interest.

Findings suggest that although the rate of interest is high in both the villages, it became exhorbitant in the case of landless tenants who used to repay their loan through produce or labour.

(ii) Labour and Rate of Interest:

Table 6.E.ii.1 and 6.E.ii.2 present the distribution of agricultural labourer borrower according to rate of interest, they are paying for their loan to different institutional and non-institutional sources.

Table shows that in the irrigated village , 33.33 per cent borrower landless agricultural labourer took credit against 50-60 per cent and 66.67 per cent at the rate of 90-100 per cent. In the case of borrower landed agricultural labourers, 56.00 per cent took credit against 90-100 per cent rate of interest, 12 per cent each against below 10 per cent rate of interest and 80-90 per cent rate of interest, respectively.

In the non-irrigated village, 71.53 per cent borrower landless agricultural labourer took credit against above 100 per cent rate of interest. In the case of borrower landed agricultural labourers, it is found that 52.50 per cent got loan against 100 per cent rate of interest, 30 per cent at the rate of 80-90 per cent and 12.50 per cent against 50-60

per cent rate of interest.

Above mentioned findings show that borrower agricultural labourers are paying high rate of interest in both the villages, as alternative sources of borrowing agencies are limited by their presence in giving loan. It is found that rate of interest comes higher when they could not repay and coerced to pay through labour service for which they used to get the wage below the market rate and sometimes also through produce at the rate below the prevailing market price.[12] For example, a farmer took Rs.1000 as loan from his employer-cum-lessor and contract is to return six maund of rice at the rate of Rs.200, as rate of interest which comes around Rs.1200, i.e. 100 per cent rate of interest per year, while the prevailing market price at the village market is Rs.250 to Rs.300 per maund of rice.

F. LINAKGES:

Interlinkages between different markets operating in rural agricultural economy can be established through ascertaining the participation of agricultural households in different markets. An agricultural household can engage himself in different markets, e.g. land market, labour market, credit market, independently or simultaneously. The term linkage can be used when there is a simultaneous trade in more than one commodity or service between the same pair of individuals takes place. Here, we shall discuss four types of general linkages, viz., land-labour, land-

credit, labour-credit and land-labour-credit linakges and their presence in our survey area. To begin with concept used to define different linakges can be discussed. Land-labour linakges can be found in the case of an agricultural household working both as tenant and labour to a landlord. It may be argued that the tenant may act independently of his labour engagement, so it cannot be termed as linkages, but the counter argument can be put forth is that while acting as tenant he found it suitable to sustain from labour income in the lean season from the landlord which automatically gives him enough time to concentrate on his tenant work, which could be disturbed if he goes for labour work far away and also he can get timely help from the landlord at any distress period. Land-credit linakges can be found when landowner is giving credit to his tenant. It can be easily justified because generally landless farmers working as tenant found it easy to borrow from his own landlord to meet the cost of cultivation and sometimes consumption needs. Credit-labour linkages can be found when an agricultural labourer borrowing from his employer against the security that if he could not repay the amount, he would repay it through extra mandays. Linkages can be found also when tenant-cum-labourer takes credit from his landlord.

Table 6.F.1 and 6.F.2 presents the percentage of households according to type of linkages. In the irrigated village 29.41 per cent landless households of the total that entered into the land and credit market are found to be interlinked. Land and labour linkages have been found in the case of 11.76 per cent landless households who entered into the labour and credit market

and all the three markets, respectively. In the case of landed households, linkages in land and credit market, and labour and credit markets have been found as 17.85 per cent and 26.47 per cent, respectively.

In the non-irrigated village linkage in the case of landless households have been found as 50 per cent in the land and credit markets, 33.33 per cent in land and labour markets, 16.66 per cent in labour and credit market and 37.5 per cent in the case of households who entered in all the three markets. In the case of landed households, it is found that 27.58 per cent of the households that entered into the land and credit markets are interlinked, 14.58 per cent of the households entered into land and labour markets are interlinked, 27.08 per cent of the households entered into the labour and credit markets are linked and 13.79 per cent of the households who entered into all the three markets are found to be interlinked.

From the above findings, it follows that linkages in the land and credit market is prevalent in the case of households in both the villages and the incidence of it is higher in the case of landless farmers. It is found that tenant taking credit from the landlord also pays through produce or higher rental share in the case of default. In a situation when crop could not materialise tenants repay it through labour, which is found as at the wage rate lower than prevailing market wage rate. It is to be noted that linkages comprising three markets is higher in the non-irrigated village. It is because farmers who act as tenants

take loan from the landlord mostly for the consumption needs due to longer lean season prevailing in the backward region and repay it through labour.

From the above discussion of extent and nature of interlinkages the following conclusion can be drawn:

(i) Interlocking between different markets exists in both the villages.

(ii) The extent of interlinakges is much more prevalent in the non-irrigated village, i.e. the backward village, compared to the irrigated village, i.e. the advanced village.

(iii) The nature of interlinkages is more exploitative in the non-irigated village where rate of interest is higher in any form, i.e. money, labour, produce as compared to the irrigated village.

(iv) In the absence of sufficient credit supply from institutional sources, farmers having land and money power are taking advantages through credit market and the terms and conditions in the credit market becomes more pervasive in the backward village.

TABLE: 6.A.1 DISTRIBUTION OF HOUSEHOLDS ENGAGED IN LAND MARKET.

Irrigated.

(Area in hect.)

Type of household.	Leased-in (area) (%)	Leased-out (area) (%)	Girbi-in (area) (%)	Girbi-out (area) (%)	Total
Landless	17(07.76) (100.0)	-	01(00.24) (05.88)	-	18
Landed	28(06.20) (33.34)	20(09.44) (24.09)	03(00.80) (03.61)	06(02.08) (07.22)	57

Note:Percentage indicates % of household.
Source: Household Survey 1994-95

TABLE:6.A.2 DISTRIBUTION OF HOUSEHOLDS ENGAGED IN LAND MARKET.

Non-irrigated.

(Area in hect.)

Type of household	Leased-in (area) (%)	Leased-out (area) (%)	Girbi-in (area) (%)	Girbi-out (area) (%)	Total.
Landless	08(03.56) (66.66)	-	-	-	08
Landed	29(07.56) (31.95)	16(06.25) (18.18)	05(00.76) (05.68)	29(05.03) (32.95)	79

Source:Household survey 1994-95.

TABLE 6.B.1 : DISTRIBUTION OF TENANTS ACCORDING TO TERMS OF TENANCY

IRRIGATED

Type of Tenants	Share of produce		Cost of cultivation borne by tenant		Cost of cultivation borne by lessor		Cost of cultivation borne by both		Total no.of tenants
	50:50 (%)	75:25 (%)	50:50 (%)	75:25 (%)	50:50 (%)	75:25 (%)	50:50 (%)	75:25 (%)	
Land loss	12 (70.59)	5 (29.41)	7 (58.33)	3 (60.00)	4 (33.33)	-	1 (08.33)	2 (40.00)	17
Landed	33 (68.75)	15 (31.25)	21 (63.24)	12 (80.00)	7 (21.21)	-	5 (15.15)	3 (20.00)	48

Source: Household survey 1994-1995.

TABLE 6.B.2 : DISTRIBUTION OF TENANTS ACCORDING TO TERMS OF TENANCY

NON - IRRIGATED

Type of Tenants	Share of produce		Cost of cultivation borne by tenant		Cost of cultivation borne by lessor		Cost of cultivation borne by both		Total no.of tenants
	50:50 (%)	75:25 (%)	50:50 (%)	75:25 (%)	50:50 (%)	75:25 (%)	50:50 (%)	75:25 (%)	
Landless	8 (100.00)	-	6 (75.00)	-	-	-	2 (25.00)	-	8
Landlord	46 (100.00)	-	37 (80.44)	-	3 (6.52)	-	6 (13.04)	-	46

Source: Household Survey 1994-1995.

TABLE: 6.C.1 DISTRIBUTION OF HOUSEHOLDS ACCORDING TO THEIR ASSOCIATION IN THE LABOUR MARKET.

Irrigated.

Type of household.	Household entering into lab.market.	Casual labour. (%)	Semi-attached labour.(%)	
			Working under max two employ-er.	Working as tenant -cum labour.
Landless	17	11 (64.71)	04 (66.66)	02 (33.33)
Landed	34	29 (85.29)	05 (100.0)	-

Source:Household survey 1994-95.

TABLE:6.C.2 DISTRIBUTION OF HOUSEHOLDS ACCORDING TO THEIR ASSOCIATION IN THE LABOUR MARKET.

Non-irrigated.

Type of household.	Household entering into lab.market.	Casual labour. (%)	Semi-attached labour.(%)	
			Working under max two employ-er.	Working as tenant cum labour.
Landless	12	05 (41.67)	03 (42.86)	04 (57.14)
Landed	48	27 (56.25)	14 (66.67)	07 (33.33)

Source:Household survey 1994-95

TABLE:6.D.i.1 DISTRIBUTION OF TENANTS ACCORDING TO THEIR ASSOCIATION IN CREDIT MARKET.

Irrigated.

Type of tenants.	Borrowed from non-institutional source (%)		Borrowed from institutional source (%)	Total no.of borrowers. (%)	Total no.of tenaants.
	Lessor	Money-lender.			
Landless	05 (55.56)	04 (44.44)	-	09 (52.94)	17
Landed	05 (31.25)	11 (68.75)	03 (10.72)	19 (67.86)	28

Source:Household survey 1994-95.

TABLE:6.D.i.2 DISTRIBUTION OF TENANTS ACCORDING TO THEIR ASSOCIATION IN CREDIT MARKET.

Non-irrigated.

Type of tenants.	Borrowed from non-institutional source. (%)		Borrowed from institutional source. (%)	Total no.of borrowers. (%)	Total no of tenants
	Lessor	Money-lender.			
Landless	04 (80.00)	01 (20.00)	-	05 (62.50)	08
Landed	08 (66.67)	04 (33.33)	-	12 (41.38)	29

Source:Household survey 1994-95.

TABLE:6.D.ii.1 DISTRIBUTION OF AGRICULTURAL LABOURER ACCORDING TO THEIR ASSOCIATION IN CREDIT MARKET.

Irrigated.

Type of labourer	Borrowed from non-institutional sources. (%)			Borrowed from institutional sources. (%)	Total no of borrowers. (%)	Total no.of agricultural lab.
	Employer	Employer -cum- lessor	Moneylender.			
Landless	03 (33.33)	02 (22.22)	04 (44.44)	-	09 (52.94)	17
Landed	09 (40.91)	-	13 (59.09)	03 (12.00)	25 (73.52)	24

* Figures in braket indicate the percentage of total.

Source:HOusehold survey 1994-95.

TABLE:6.D.ii.2 DISTRIBUTION OF AGRICULTURAL LABOURER ACCORDING TO THEIR ASSOCIATION IN CREDIT MARKET.

Non-irrigated.

Type of labourer	Borrowed from non-institutional sources.			Borrowed from institutional sources.	Total no. of borrowers.	Total no.of agricultural lab.
	Employer	Employer -cum- lessor.	Moneylender.			
Landless	02 (28.57)	03 (42.86)	02 (28.57)	-	07 (58.33)	12
Landed	13 (34.21)	04 (10.53)	21 (55.26)	02 (5.00)	40 (83.33)	48

* Figures in braket indicate the percentage of total.

Source:Household survey 1994-95.

TABLE:6.E.i.1 DISTRIBUTION OF TENANT-CUM-CREDITOR ACCORDING TO RATE OF INTEREST.

Irrigated.

Type of tenants.	Rate of interest.				Total no.of borro-wers.
	Less than 10%	50%-60%	80%-100%	More than 100%	
Landless	-	04 (44.44)	05 (55.56)	-	09
Landed	03 (17.79)	06 (31.58)	10 (52.63)	-	19

* Figures in bracket indicate percentage of total.

Source:Household survey 1994-95.

TABLE:6.E.i.2 dISTRIBUTION OF TENANT-CUM-CREDITOR ACCORDING TO RATE OF INTEREST.

Non-irrigated.

Type of tenants.	Rate of interest.				TOtal no.of borro-wers.
	Less than 10%	50%-60%	80%-100%	More than 100%	
Landless	-	-	-	05 (100.0)	05
Landed	-	-	12 (100.0)	-	12

* Figures in the braket indicate percentage of total.

Source:Household survey 1994-95.

TABLE:6.E.ii.1 DISTRIBUTION OF AGRICULTURAL LABOURER-CUM-CREDITOR ACCORDING TO RATE OF INTEREST.

Irrigated.

Type of labourer.	Rate of interest.					Total no. of borrowers
	Below 10%	50%-60%	80%-90%	90%-100%	Above 100%	
Landless	-	03 (33.33)	-	06 (66.67)	-	09
Landed	03 (12.00)	05 (20.00)	03 (12.00)	14 (56.00)	-	25

* Figures in braket indicate percentage of total.
Source:Household survey 1994-95.

TABLE:6.E.ii.2. DISTRIBUTION OF AGRICULTURAL LABOURER-CUM-CREDITOR ACCORDING TO RATE OF INTEREST.

Non-irrigated.

Type of labourer.	Rate of interest					Total no.of borro-wers.
	Below 10%	50%-60%	80%-90%	90%-100%	Above 100%	
Landless	-	-	02 (28.57)	-	05 (71.43)	07
Landed	02 (05.00)	05 (12.50)	12 (30.00)	-	21 (52.50)	40

* Figures in braket indiate percentage of total.
Source:Household survey 1994-95.

TABLE:6.F.1 PERCENTAGE DISTRIBUTION OF LINKAGES ACCORDING TO PARTICIPATION OF HOUSEHOLDS IN DIFFERENT MARKETS.

Irrigated.

Type of linkages	Landless	Landed
1.Land and Credit.	29.41	17.85
2.Land and Labour.	11.76	-
3.Labour and Credit.	17.64	26.47
4.All the three.	11.76	-

Source:Household survey 1994-95

TABLE:6.F.2 PERCENTAGE DISTRIBUTION OF LINKAGES ACCORDING TO PARTICIPATION OF HOUSEHOLDS IN DIFFERENT MARKETS.

Non-irrigated.

Type of linkages	Landless	Landed
1.Land and Credit.	50.00	27.58
2.Land and Labour.	33.33	14.58
3.Labour and Credit.	16.66	27.08
4.All the three.	37.50	13.79

Source:Household survey 1994-95.

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9. 50:50 share basis refers to the tenurial arrangement where lessee and lessor get the half of produce respectively and

75:25 basis refers to the tenurial arrangement where lessee gets the three-fourth of the produce and lessor gets the one-fourth.

10. In both the villages landlords generally refer to the medium farmers as otherwise no big or large size group of farmers, e.g. having more than 4 hectares of land have been found.

11. It is found that in the irrigated village one landless tenant paid his interest through below market value of wage and in the non-irrigated village three landless tenant and two landed tenants found to be repaying their loan through below market rate of wage and higher than the agreed rental share.

12. It is found that in the irrigated village two landless agricultural labourer and three landed agricultural labourer repaying their loan through below market rate of wage and in the non-irrigated village four landless agricultural labourer and seven landed agricultural labourer are repaying the loan amount through below market rate of wage.

C H A P T E R - VII

SUMMARY AND CONCLUSION

SUMMARY AND CONCLUSION

In India, like many other developing countries, agriculture plays a crucial role in the process of economic development. Agriculture and allied sector in India accounts for about 30 per cent of the Gross Domestic Product and employs about two-thirds of the labour force. For the development of agriculture, credit plays an important role like any other inputs. In a country where 76 per cent of the total fragmentation are less than two hectares, farmers required credit to meet their different purposes, e.g. production, consumption etc.

At different points of time various attempts have been made by different institutions and also by individuals to estimate the credit requirements of the farmers and supply from the institutional sources. It gives us an idea that at no point of time supply from institutional sources were sufficient enough to meet the required credit. It leads to a gap, which has been generally filled up by the village level money lenders, landlords, traders etc. In the process, these non-institutional sources also involved the other rural markets, broadly, e.g. land, labour etc. The above mentioned studies related to national level and also to various state level. It is found that most of the studies did not cover a large part of North-Eastern States, particularly Tripura. The present study is a modest attempt to fill this gap at micro level, i.e. at village level in West Tripura district of Tripura.

OBJECTIVES:

The major objectives of this study are:

i) To estimate the credit requirements and the gap between requirement and supply, taking both the institutional and non-institutional sources separately.

ii) To estimate the extent and distribution of indebtedness among the different size groups of farmers, and

iii) To study the extent and nature of different types of linkages between credit, land and labour markets.

SOURCES OF DATA AND METHODOLOGY:

The total farm household list of the two villages (one is mostly having irrigational facilities and other one is mostly dependent on rainfed irrigation) have been collected from the village level Panchayat Offices. A random sample of 100 households from each village comprises of four categories, e.g. landless, marginal, small and medium farmers have been selected for the study. An exhaustive questionnaire was prepared to collect the information from the selected households of different categories. To collect the relevant information, the questionnaire is designed to incorporate the items like landholdings, cropping pattern, asset position, adoption of farm technology, cost of

cultivation, credit availability from formal and informal agencies, repayment in cash and kind, cost of different inputs and outputs, wage rate, rental share, etc. The survey has been conducted during the period of June 1994 to May 1995. Data relating to progress and position of different institutions at State level has been collected fron different institutions persoanally by researcher.

To find out the credit requirements of the farmers two policy alternatives have been assumed as follows:

Alternative (i):

According to this alternative, credit would be made available on a differentiated basis according to the savings of each size group of farmers. To work out the savings, the total expenditure (consumption) has been deducted from the gross farm income of the different size group of farmers in both the villages. Now assuming that the amount, i.e. savings, available with the farmer at the point of the start of the season, we would deduct the amount from the cost of cultivation of the different categories of farmers and find out the credit requirement. In the process, credit gap if exists would be found out if the required credit is not available from any sources, e.g. formal and informal. Here, the gap is found out on per farmer basis to keep the conformity in units.

Alternative (ii)

According to this alternative credit would be made available on the basis of different components of cost of cultivation.

(a) Credit would be made available equivalent to the full extent of cash and kind expenditure plus 50 per cent of the imputed value of family labour in the case of small and marginal farmers.

(b) Credit would be made available equivalent to 75 per cent of the cash and kind expenditure (excluding the imputed cost of family labour) incurred by the medium farmers.

To study the extent of indebtedness, we have seen the borrowing of different categories of farmers from different formal and informal sources, the overdues position, etc.

To study the extent and nature of linkages between different markets, i.e. land, labour and credit, the following aspects have been covered. (i) land market, (ii) tenancy market, (iii) credit market, (iv) labour market, (v) tenancy and credit, (vi) labour and credit, (vii) tenants and rate of interest, (viii) labourer and rate of interest, (ix) percentages of different linkages in both the villages.

CHAPTERISATION:

In the first chapter, introduction is given and the problem is posed, methodology and objectives of the present study is also spelt out. The second chapter deals with the review of literature in these fields. The third chapter presents the progress and position of different institutions at national level and also at state (Tripura) level. The fourth chapter deals with the profile of the West Tripura District and sample villages. The fifth chapter discusses the estimation of credit and extent of indebtedness. The sixth chapter deals with linkages between different markets and last, i.e. the seventh chapter presents summary and conclusion.

MAIN FINDINGS:

Demographic composition shows that in the irrigated village, the percentage of male and female are 53.56 per cent and 46.44 per cent respectively and in the non-irrigated village there are 54.48 per cent male and 45.52 per cent female. The working force, i.e. the population between 15-60 years is calculated as 70.71 per cent in the irrigated village and 68.56 per cent in the non-irrigated village.

Education level of the sample farmers shows that illiteracy is around 20 per cent in both the villages. Category-wise distribution reveals that the rate of illiteracy is more in the landless group of farmers than the other group of farmers which

is calculated as 47.06 per cent and 66.67 per cent in the irrigated and non-irrigated village, respectively.

An analysis of operational holdings of 1994-95 shows that in the irrigated village, marginal and small farmers who constitute 85.54 per cent of the total land owning households are controlling 56.97 per cent of the total operated area. On the other hand, medium farmers who constitute 14.46 per cent of the total land owning households controlled 43.03 per cent of the total operated area. In the non-irrigated village, marginal and small farmers comprising 92.04 per cent of the land owning household are controlling 76.21 per cent of the total operated area, while medium farmers constituting 7.96 per cent of the total land owning households controlled 23.79 per cent of the total operated area.

Dependency ratio is found to be consistently higher in the different categories of farmers in the irrigated village compared to their counterparts in the non-irrigated village, which established the fact that more family members are at work in the non-irrigated village to survive and run their family. It is found that across the villages, dependency ratio is more due to lower age group, female and aged population. The higher dependency ratio in the irrigated village can also be attributed to the fact that there are high percentage of population below the age group of 15 and lower rate of women participation, although the percentage of women population is higher in the irrigated village.

A comparison of irrigated area in both the villages shows that of the total operated area in the irrigated villages (85.52 hectares), 84.85 per cent is found to be under irrigation, while in the non-irrigated village of the total operated area (68.92 hectares), the percentage of area under irrigation is worked out as 13.27 per cent.

Asset position of different categories of farmers in both the villages shows that land constitutes a major part of the total assets among all the land owning size groups. In the irrigated village land constitutes 64.08 per cent, 50.97 per cent, 44.74 per cent of the total assets in the case of marginal, small and medium farmers, respectively. In the non-irrigated village, land constitutes 58.49 per cent, 56.59 per cent and 38.94 per cent of the assets in the case of marginal, small and medium farmers, respectively. Next to land, houses and livestocks also constitute a sizable portion of the total assets in the different categories of farmers. In the case of landless farmers, house value constitutes the major portion of the total assets in both the villages.

Cropping pattern followed by different size group of farmers shows that in both the villages, the main crop is paddy. In the irrigated village, a majority of farmers produced two crops in the survey year. A significant portion also produced three crops. Cropping intensity in this village is found to be highest in the case of medium farmers, which is calculated as 210.92. In

the case of marginal and small farmers, it is found as 186.32 and 184.21, respectively. In the non-irrigated village, farmers across the size groups mostly dependent on single crop. Cropping intensity in this village shows that the medium, small and marginal farmers are having 144.63, 132.58 and 126.27 cropping intensity, respectively.

Adoption of farm technology, e.g. fertilizer, pesticides, high yielding varieties (HYV) and modern implements, among different size group of farmers shows that fertilizer is being used by a sizeable portion of farmers in both the villages. In the irrigated village, usage of HYV is found to be more prevalent compared to the non-irrigated village. Farmers in the irrigated village are also using modern implements in large scale compared to the sample farmers in the non-irrigated village. In the irrigated village medium farmers are found to be using pesticides and modern implements more intensively than the small and marginal farmers.

Cost of cultivation in cash and kind incurred by different size group of farmers show that irrespective of size groups, farmers in the irrigated village have higher cost of cultivation than the farmers in the non-irrigated village. It is due to the fact that farmers in the irrigated village are using productive ingredients at large scale and moreover the cropping intensity followed by them shows that the farmers in irrigated village generally produced double crop and in some cases also three crops, while farmers in the non-irrigated village restricted them

in one crop generally. The per hectare cost including imputed cost of family labour worked out as Rs.7,698.31, Rs.8,091.33 and Rs.8,915.44 in the case of marginal, small and medium farmers, respectively, in the irrigated village and Rs.4,979.53, Rs.5,814.57 and Rs.6,563.42, in the case of marginal, small and medium farmers, respectively, in the non-irrigated village.

Distribution of farm income from different agriculture and allied activities shows that per hectare net income is higher in the irrigated village compared to the non-irrigated village. Net farm income is worked out as Rs.9,929.41, Rs.8,403.86 and Rs.9,418.90 in the case of marginal, small and medium farmers, respectively, in the irrigated village and Rs.4,162.19, Rs.4,088.80 and Rs.4,119.89 in the case of marginal, small and medium farmers, respectively in the non-irrigated village.

Consumption pattern of the sample farmers shows that main components of the consumption are fooding, clothing, education, interest payments in both the villages. Comparison between the villages shows that in the irrigated village besides fooding, farmers spend a large amount on education, clothing, while in the non-irrigated village farmers spend a large amoung on interest payment besides fooding.

Gross savings pattern of different size group of farmers shows, in both the villages, marginal farmers are having negative savings, while the magnitude is higher in the non-irrigated village. It is found that per farmer savings is highest in the

case of medium farmers of the irrigated village. The per farmer savings of different size group of farmers are calculated as Rs.(-)669.22, Rs.2,698.04 and Rs.24,136.00 in the case of marginal, small and medium farmers, respectively, in the irrigated village. In the non-irrigated village, it is found as Rs. (-)2,582.06, Rs.794.44 and Rs.7,680.69 in the case of marginal, small and medium farmers, respectively.

According to different alternatives, which are modelled depending upon the savings pattern and also cost of cultivation incurred by different size group of farmers, show that credit gap existed in each size group of farmers. Credit gap is estimated taking credit requirements of the farmers and credit supply from institutional and non-institutional sources separately. According to alternative one, credit gap in the irrigated village is found as Rs.4,815.33, Rs.7,313.63, Rs.3,204.67 taking the supply from institutional sources and Rs.4,045.69, Rs.6,913.33 and Rs.2,371.04 taking the non-institutional supply into account in the case of marginal, small and medium farmers, respectively. In the non-irrigated village credit gap is worked out as Rs.4,785.90, Rs.6,880.79, Rs.7,680.69 taking the supply from formal sources and Rs.4,176.23, Rs.4,854.48, Rs.6,252.12, taking the supply from the informal sources in the case of marginal, small and medium farmers, respectively. According to alternative two, credit gap in the irrigated village is also found as higher in comparison to the farmers in the non-irrigated village. Among the size groups, it is found that in both the alternatives, small and marginal farmers have higher credit gap compared to medium

farmers in both the villages. In the survey year, it is noted that there was no supply from institutional sources in the form of crop loan in both the villages. But this is the one side of the mirror, other side tells different story, which is reflected in the extent of indebtedness section.

Distribution of borrower households in both the villages shows that 58 per cent and 72 per cent of the total sample households in the irrigated and non-irrigated village respectively borrowed from different sources, i.e. institutional and non-institutional sources. The average borrowed amount per borrower is worked out as Rs.3,033.33, Rs.3,669.44, Rs.7,266.66 and Rs.32,500.00 in the case of landless, marginal, small and medium farmers, respectively in the irrigated village and Rs.3,701.45, Rs.3,767.14, Rs.6,011.57 and Rs.9,800.00 in the case of landless, marginal, small and medium farmers, respectively in the non-irrigated village.

Distribution of amount in different institutions reveals that in both the villages, amount borrowed from co-operatives and commercial banks by different group of farmers is largest. Contribution of non-institutional sources in the total borrowed money is found to be larger in the case of landless and small size group of farmers in both the villages.

Rate of interest charged by different institutional and non-institutional sources suggests that it has been charged in various terms. While money is generally being used as term of

paying rate of interest in the case of institutional sources, non-institutional sources, viz., money lenders, landlords charged the rate of interest in various terms, namely labour, produce, money, etc. It is found that rate of interest charged by these informal sources ranges from 40-60 per cent to more than 100 per cent. It is observed that in the non-irrigated village, a large part of credit from informal sources supplied against a rate of interest of more than 100 per cent.

Borrower farmers got their loan against different type of collaterals, e.g. personal security, Panchayat, mortgage of property etc. It is found that smaller size group of farmers in both the villages got their loan mostly against personal security and Panchayat, while the medium farmers used their land as mortgage to fetch a larger amount of loan from the insitutional sources.

Use pattern of the borrower farmers shows that farmers used their loan for different purposes. Information reveals that landless and marginal farmers in both the villages used major portion of their borrowed amount on home consumption, social obligation and livestock purchase. In the irrigated village, small and medium farmers used their borrowed money mostly on agricultural activities, while in the non-irrigated village medium and small farmers used their borrowed money mostly on agricultural activities and livestock purchase.

Percentage distribution of defaulter farmers in different

institutional and non-institutional sources shows that all the borrower medium farmers in both the villages are defaulters in the institutional agencies. In the irrigated village, a sizeable section of borrower farmers from landless and marginal groups are defaulters in non-institutional agencies. In the non-irrigated village more than half of the small and marginal borrower farmers are defaulters in non-institutional agencies.

Information with regard to overdues shows that landless, marginal and small group of farmers in both the villages have more chronic overdues position than the medium group of farmers. It is found that most of the overdues of more than one year of maturity period are having it with the institutions. On the other hand, the same farmers are getting loans from non-institutional sources at an exhorbitant rate and paying it at regular interval.

Discussion on linkages mainly centered around three rural markets, viz. land, labour and credit.

Distribution of household that entered into the land market shows that in the irrigated village all the landless households surveyed entered into the `leased-in' market, while 33.34 per cent of the total landed households entered into the `leased-in' market. In the non-irrigated village, 66.66 per cent of the total landless households entered into the `leased-in' market and 31.95 per cent of the total landed households entered into the same market. The area involved in this market is found to be a

meagre portion of the total operated area in both the villages. It is also found that girbi market which reflects the direct linkages between land and credit market is more prevalent in the non-irrigated village. The main reason of this may be attributed to the fact that smaller size group who starved off collaterals to get credit at their urgent needs found it to be easy to get money to meet their consumption needs in the lean season.

Distribution of households in the tenancy market reveals that six types of tenurial arrangements are working in these villages under the 50:50 and 75:25 share of product. It is found that most unfavourable term of contract is where crop has to be shared on 50:50 basis and cost of cultivation has to be borne by the tenant. In the irrigated village 58.33 per cent tenants and in the non-irrigated village 75 per cent tenants are working under this term and condition.

Distribution of households who entered into the labour market shows that there are two types of labourer engaged as agricultural labourer, e.g. casual labour and semi-attached labour. In the irrigated village, 66.67 per cent and 85.29 per cent of landless and landed households, respectively are working as casual labour and 35.29 per cent and 14.71 per cent of the landless and landed agricultural labourer, respectively are working as semi-attached labourer. In the non-irrigated village 41.67 per cent and 56.25 per cent of landless and landed agricultural labourer, respectively are working as casual labour and 58.33 per cent and 43.75 per cent of the landless and landed

agricultural labourer, respectively are working as semi-attached labourer. From the above findings, it can be concluded that labourers in the irrigated villages are working more as casual labour than the labourers in the non-irrigated village. The main reason behind this is found as the labourer in the irrigated village are having more option due to the three crops season, labourers in the non-irrigated village has to face a more lengthy lean season.

Distribution of tenants according to their association in credit market shows that percentage of landless tenant took credit from non-institutional sources is much more compared to the landed tenants in both the villages and incidence of credit from land owner-cum-lessor is much higher for the tenants in non-irrigated village than their counterparts in the irrigated village. The reasons behind that found as landless farmers have little to offer as collateral to obtain loan, so they go to obtain loan from the landlord-cum-lessor against the standing crop or their labour, which in turn put the tenant at a disadvantage in the form of higher rental share and below market wage rate.

Distribution of labourer according to their association in credit market reveals that the incidence of credit from employer-cum-lessor is much more in the non-irrigated village than their counterparts in the irrigated village. The percentage is worked out as 22.22 per cent in the case of landless agricultural labourer in the irrigated village and 42.86 per cent and 10.53 per

cent in the case of landless and landed agricultural labourers, respectively in the non-irrigated village.

Distribution of tenant borrower according to rate of interest shows that although the rate of interest is high in both the villages, it became exhorbitant in the case of landless tenant who used to repay their loan through produce or labour to the landlord/landlord-cum-lessor. Between the villages, it is found that tenants in the non-irrigated village are paying higher rate of interest compared to the tenants in the irrigated village.

Distribution of agricultural labourer borrower according to rate of interest shows that they are paying high rate of interest in both the villages. It is found that rate of interest comes higher when they could not repay and coerced to pay through labour service for which they used to get the wage below the market rate and sometimes also through produce at the rate below the prevailing market price.

Percentage distribution of linkages according to participation of households in different markets show that in the irrigated village landless households got interlinked in all the types of linkages, while landed households got interlinked mostly in labour and credit and land and labour type of linkages. In the non-irrigated village, majority of landless and landed households got interlinked in land and credit type of linkages and their presence in other type of linkages is also found. Comparison between the villages shows that linkages are more prevalent

in the non-irrigated village than the irrigated village.

From the above discussion, it can be concluded that,

1) The irrigated village which is exposed to advanced agricultural facilities, the farm income is higher compared to that of the non-irrigated village.

2) The extent of institutional finance is found to be higher in the developed village, i.e. the irrigated village compared to the backward village, i.e. the non-irrigated village and dependence on non-instituional sources is also higher in the case of farmers in the non-irrigated village.

3) The extent of interlinakges between different rural markets is found to be higher in the agriculturally backward village (non-irrigated village) compared to that of the advanced village (irrigated village) and also the nature of interlinkages is found to be more exploitative and pervasive in the non-irrigated village.

Thus, the economic condition in terms of agricultural income, credit supply from institutional sources and extent and nature of interlinkages between different rural markets are found to be better in the irrigated village compared to the non-irrigated village, which may be attributed to the agricultural development.

The study suggests to take the following measures in view of

the problem existed in the sample village.

1) Irrigational facilities through deep tube wells, shallow etc., should be improved in the non-irrigated village. It is evident from the above study, that with irrigation farmers can go for variety of crops and earn higher income.

2) The supply of institutional finance should be increased in the form of crop loan which in turn will help the farmers to buy modern ingredients for cultivation.

3) The crop loan may be issued through the village level agricultural office, as most of the agricultural inputs are supplied through these village level offices in Tripura and the agricultural marketing co-operatives may be strengthened to procure the output at village level.

4) The Panchayat should be involved in the process of issuing crop loan from the institutional sources, so that timely disbursement and speedy recovery of loan can be done at village level.

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A P P E N D I X

A. Value of Output(s):

	Output	Value
i)	Aman paddy (local)	Rs.250 per maund.
ii)	Aman paddy (HYV)	Rs.350 per maund
iii)	Aush paddy (local)	Rs.300 per maund
iv)	Aush paddy (HYV)	Rs.350 per maund
v)	Boro paddy	Rs.300 per maund
vi)	Sisasum	Rs.400 per maund
vii)	Oil seeds	Rs.950 per maund
viii)	Potato	Rs.250 per maund
ix)	Cauli flower	Rs.496 per maund
x)	Cabbage	Rs.375 per maund
xi)	Karkol	Rs.280 per maund

A1. Value of by-products:

i)	Chaff	Rs. 70 per maund
ii)	Straw	Rs. 50 per bundle
iii)	Wooden sticks	Rs. 9 per 100 sticks
iv)	Milk	Rs. 8 per litre

B. Cost of Input(s):

	Input	Cost
i)	Aman seed (local)	Rs.327.50 per 50 Kgs
ii)	Aman seed (HYV)	Rs.450.00 per 50 Kgs
iii)	Aush seed (local)	Rs.425.00 per 50 Kgs

iv)	Aush seed (HYV)	Rs.650.00 per 50 Kgs
v)	Boro seed	Rs.385.00 per 50 Kgs
vi)	Sisasum seed	Rs.440.00 per 20 Kgs
vii)	Oil seeds	Rs.550.00 per 20 Kgs
viii)	Potato seeds	Rs.650.00 per maund
ix)	Farm yard manure	Rs. 6.00 per 10 Kgs
x)	Urea	Rs. 3.91 per Kg.
xi)	RP (Potash)	Rs. 2.34 per Kg
xii)	MP (Potash)	Rs. 6.61 per Kg

C. Wages

i) Peak season

Male - Rs.45-50

Female - Rs.30-35

ii) Lean season

Male - Rs.30-35

Female - Rs.20-25

D. Calculation of Gini Co-efficient

1. Irrigated

[(67.47 x 56.97) + (85.54 x 100.00)] - [(35.27 x 85.54) + (56.97 x 100.00)]

= (3843.76 + 8554) - (3016.96 + 5697)

= 12397.76 - 8713.96 = 3683.8/10000 = 0.368 = 0.37

2. <u>Non-Irrigated</u>

[(70.45 x 76.21) + (92.04 x 100.00)] - [(39.82 x 92.04) + (76.21 x 100.00)]

= (5368.99 + 9204) - (3665.03 + 7621)

= 14572.99 - 11286.03 = 3286.9/10000 = 0.328 = 0.33