

ECOLOGY AND RURAL CLASS RELATIONS IN

BANGLADESH;

A Study with Special Reference to Three Villages

Submitted by

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To my wonderful parents
Zobeda and Abdul Aziz

ABSTRACT

The purpose of this study is to examine the precise nature of the relationship between ecology and class structure and to see how and to what extent the ecological setting affects the class relations of a rural community.

It is both an empirical and a theoretical study. The theoretical analysis covers the question of the influence of the environment in the development of human society and the circumstances under which ecology may play a role in production relations. This analysis also involves an investigation of the relations of production themselves in trying to identify the various classes in a Bangladesh social formation. The empirical study, on the other hand, carried out in three ecologically different areas of southern Bangladesh, was designed to test relevant hypotheses.

It is a two fold study. First, to analyse the extent to which the relations of production in the three villages differ and to establish whether this difference could be construed as evidence of different modes of production in the villages. Secondly, to ascertain to what extent these differences are due to the ecological settings of the three villages.

The findings are positive in that it is possible to establish direct relationships between two ecological variables and individual class relation variables and to predict modes of production corresponding to these ecological variables. However, when indirect relationships between variables as well as direct relationships are taken into account, the complexity of the relations between ecology and class structure does not allow simple generalizations to emerge.

Physical necessity brought man to a stage of development at which he began, little by little, to separate himself from the remaining animal world. He became a tool-making animal. The tool is an organ with the help of which man acts on nature to achieve his ends. It is an organ which subjects necessity to the human consciousness, although at first only to a very weak degree, by fits and starts, if one can put that way. The degree of development of the productive forces determines the measure of the authority of man over nature.

The development of the productive forces is itself determined by the qualities of the geographical environment surrounding man. In this way nature itself gives man the means for its own subjection.

G.V. Plekhanov, 1895

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INTRODUCTION

It has become common practice for social science scholars particularly in the Less Developed Countries to take sample villages from different ecological regions of a country in rural study programmes in order to see regional variations. Such variations are seen for example, in the fragmentation and dispersion of land, land holding patterns, cropping patterns, forms of tenancy and rent relations, usury and market relations. While these variations are recognised and are thought to be generally due to either ecological differences between regions or to accidental factors, neither a firm theoretical foundation nor detailed empirical studies exist on the precise nature of the relationship between ecology and class structure.

My objective here is to try to examine whether, and to what extent the ecological setting of a rural community has an influence on its class structure. It is, in a way, a formulation of the broader question of the influence of environment on the development of human society. However, my investigation is more restricted in scope and ultimately comes down to an examination of the relationship between a set of ecological variables on the one hand and certain properties of the forms of the labour process and the structure of production on the other.

Clearly, ecology and class structure are two separate and distinct areas of study and therefore, it is necessary to examine them individually and also to explain the context in which they are interlinked. Ecology has

been defined by social scientists of different disciplines in various ways¹ but in this study it is taken to mean the immediate environment in relation to man's natural habitat. Thus, it is a study within the broader framework of human geography.

With regard to class structure, here the concept has been used in the Marxist sense which will be elaborated later. However, the real contribution in this sense must be seen in a different context. That class structure varies from place to place and that this is due to differences in the relations of production corresponding to different modes of production is well established. The reason for these differences is sought in the historical processes of production relations. This study submits ecology as one of the possible factors that might explain some of the differences in the relations of production between regions. It may be argued that there is an inverse relationship between the level of the forces of production and the effect of ecology on relations of production. In other words, depending on the level of the forces of production, ecology has a determining or a mediating effect.

Thus on the one hand this is a study in human geography, and on the other it is an enquiry into class analysis; in this sense it may be regarded as interdisciplinary.

One further question may be asked. Why an analysis of class structure? The reason is that class structure may be said to explain the structure and the causes of poverty in a given social formation. The logical connection between class structure and poverty may be demonstrated in three ways. First, in terms of direct land ownership, since in a rural society who is poor and who

1. See chapter iv, section 1

is not, how many people are poor and how poor they are depends to a very large extent on who has access to land and who does not. In other words, the extent and level of poverty depends on the relation of these people to the means of production in a direct way. Secondly, and this is a little more indirect, in that the existing structure of land ownership, which is at least a proxy for the existing class structure, inhibits the development of the forces of production. This means low output and in turn a lower level of division of labour. Thirdly, in a larger context, the existing relations of production not only in the villages but also in the country as a whole and indeed to a significant extent, the world capitalist system, determines the set of policies that are available and adopted. These policies include price policies, procurement policies vis-a-vis imports, exports, foreign exchange, subsidies of certain exports, and import taxes that may make certain inputs in agriculture more expensive than need be. This entire set of policies itself depends on the national power structure which is determined in a large sense, by the relations of production for the nation as a whole. This plays a major and perhaps determining role in keeping the forces of production depressed both in the cities and in the villages.

The first chapter introduces the empirical background in which the subject of this study is set. It discusses, on the one hand, the geographical background and on the other, the level of poverty and inequality.

In the former it highlights a combination of agro-ecological determinants which interact to determine, for example, the number of rice crops and the kind of associated crops which can be grown; whether they are broadcast or trans-

planted, deep-water or intermixed. These in turn affect labour especially wage labour use, wage-rate and therefore production cost, employment and the income of the labouring class. This forms the basis of the analysis linking ecology and class relations.

In this chapter I also examine the causes of the level of poverty and inequality both historically and in the context of contemporary Bangladesh social formation. It brings out not only the changing class structure and modes of appropriation of surplus but also the nature of the interrelations between class structure and poverty.

Ecological changes in the southern coastal district of Bangladesh in which the three selected villages are situated are discussed in Chapter 2. This focuses on the history of land reclamation and early settlement in the Sundarbans which form a large part of the district in the south. This analysis is important in order to answer some of the key questions which underlie some of the hypotheses. In order to establish some sort of a relationship between ecology and the structure of differentiation in the villages it was necessary to know, for instance, whether the original settlement was characterized by inequality or whether inequality accelerated over the years. The historical analysis of settlement helped to see how the ecological factors such as jungle clearance, salinity and the inaccessibility of the region affected the development of the forces of production and the formation of changing relations of production in the region.

The three selected villages are discussed in Chapter 3. Here I have outlined the ecological differences between the villages, their demographic and agrarian structure, the various occupations of the villagers, the market and finally the structure of power and politics focusing on how all these structures have been affected by the ecology of the villages or of their immediate region. These structures outline the various relations different people enter into in the process of production. Two broad forms emerge clearly from this. These are the relations of 'possession' and the relations of 'separation' from the means of production, with those separated being critically dependent on those who are not, for the reproduction of their labour. Thus, this chapter forms the basis for an analysis of class structure at the village level.

However, although it shows the broader relationships between the various socio-economic structures and their ecological surrounding it does not explain the precise nature of the relationship between a selected ecological variable and the relations of production.

In order to do this, it is necessary to introduce the ecological variables and explain what these relations of possession and separation from the means of production are.

In the last section of Chapter 3, the ecological variables have been elaborated. Unlike ecological variables which are quantifiable, relations of production are the conceptual issues in which class concepts are set. Therefore, it is important to explain these issues before it is possible to identify the relations and the classes at the village level.

This sets the ground for the theoretical chapter (Chapter 4). As this study is a limited formulation of the broader question of the man-nature relationship, some of the major contributions to this field are reviewed at the outset. The existing approach - which is, broadly, a social anthropology approach - is one in which civilization is explained in terms of the cumulative and progressive adaptive ability of man to nature embodied in the concept of culture. It is not so much the term 'culture' nor the adaptive nature of man, but the isolated and yet all embracing nature of the concept of 'culture' that I find a weakness in the traditional anthropological approach to studies in cultural ecology.

The Marxist method of analysis provides a more rigorous approach in which 'culture' is replaced by the concept of 'forces of production' in explaining man's adaptability to nature. 'Forces of production' unlike 'culture' is not an independent concept, but part of a system of inter-linking concepts which help explain not only the different stages of civilization but also their transition. The concepts embody the process of production, distribution and circulation but are articulated in the conflicting nature of the relations these processes presuppose.

Classes are set in these conflicting relations of production and therefore can only be understood in the context of these relations. However, rural people enter into various forms of relations and do not fall neatly into class categories. A poor household, for instance, may share-crop out his land and also do wage labour and therefore it may be difficult to determine whether this makes him a landlord or a wage labourer. The answer to this is sought in the theoretical position of the concept of relations of production which stipulates that all

relations are not necessarily relations of production and that to make a difference in the relations of production there must be a difference at the level of the market, forces of production, ideology or at the level of politics. Without a clear understanding of these differences in the relations of production it is almost impossible to locate the classes which must be a pre-condition to an analysis of the precise nature of the relationship between ecology and the way rural societies are structured.

Thus, the Marxist method of analysis in a single theoretical system explains on the one hand the man-nature relationship and on the other, the unequal relationship of men in society. The descriptive-analytical approach of social anthropologists to ecological studies, valuable though they undoubtedly are, does not offer any theory as such, (Steward:1955:36) and thus makes it almost impossible to form any generalisation on the basis of specific observations.

These, basically are the reasons for adopting a Marxist approach. Different aspects of this have been highlighted in the theoretical chapter in order to identify the relations of production and on the basis of these relations the classes one would expect to find in Bangladesh villages have been identified.

Chapter 5 uses this analytical format and with the help of the household data examines class structure in the selected villages. As a result, the preliminary categories are re-structured to formulate a comparative class structure of the villages based on the relations of production.

In Chapter 6 the precise nature of the relationship between the ecological variables and the relations of production is examined. This is done in three stages. In the first stage, a series of predictions is made on the basis of a set of hypotheses linking the indicators of class relations and the ecological variables. In the second stage these predictions are tested against the findings in the empirical study of the villages. In the final stage, on the basis of these tests a framework identifying the possible linkages between some of the ecological variables and the class relation variables is offered.

In the concluding chapter, the empirical evidence demonstrating a positive correlation between ecology and class relation variables is summed up and the theoretical framework explaining the precise nature of the relationship between the selected ecological variables and the social variables is reviewed.

METHODOLOGY

The present research is primarily an empirical study based on field work in three villages in Khulna, one of the southern most districts of Bangladesh. The proposed theoretical construct has been tested against the findings in these villages.

Ideally and in principle, for a thorough investigation micro-regions should have been selected in the different ecological zones of Bangladesh; so that the regional variations could be readily seen and the study would be more representative of the country as a whole. In addition, and what is perhaps more important, instead of an original study of villages selected at random, a re-study of villages on which some work had been done earlier would be more useful so that as Shanin puts it 'a line could be drawn between two points'.¹ While the latter process would certainly have made this research less tedious, the selection of the villages itself would have been more time consuming since it would have involved going through different District Office Records at District Headquarters and sieving out villages not only on which previous data existed but also which were representative of the region in which they were located. This would have doubled the time needed for the process of selection and therefore, although the advantages of such a process were appreciated, it was felt that without the benefit of lengthy previous research, its adoption was impossible.

Originally it was intended to select villages from the various ecological zones of Bangladesh, but having visited several villages in Dinajpur and Rangpur districts

1. This was suggested by Professor Teodor Shanin of Manchester University when I visited him following my return from field studies in Bangladesh.

in northern Bangladesh, some villages in the Sylhet Hills in the north-east and several more villages in the districts of Barisal and Khulna in the deltaic southern part of the Bengal Basin, I was convinced that given the constraints of time, manpower and logistic support and with the approach of the long monsoon, it was not feasible to undertake such a project. Instead, after extensive travel, three villages were selected in three ecologically distinct regions of one district, ensuring that each village was typical of the region in which it was located.

Data collection was carried out using a combination of household surveys and participant-observation techniques.

In the first category, an intensive preliminary questionnaire¹ was framed in order to obtain information on the village-level class structure and household data on access to the means of production and production relations, i.e. landholding, tenancy pattern, family or wage labour use, production and marketing, income and expenditure, and usury. The questionnaire was tested in the field during my tour of the villages in different parts of the country and finally necessary alterations were made to meet the specific needs of the villages I selected. However, to ensure proportional representation of different classes (for the moment defined in terms of landholding) it was necessary to undertake, as a first stage, a one hundred per cent census of the villages. This was done and information was obtained on landholding, family size, age distribution of family members² and principal occupation for all three villages.³

-
1. The Bangladesh Institute of Development Studies Village Study questionnaire was consulted as a guideline.
 2. In terms of food consumption, children under 3 years of age were regarded as normally breast-fed, between 3 and 10 years were considered as consuming half the adult food-intake and above 10 as adults in terms of food intake.
 3. For questionnaires in Bengali and translation see Appendix V.

It is important to note here that, due to differences in soil fertility and other ecological characteristics, crop yields vary significantly between the three villages so that access to means of production does not reflect the same class category in all three villages. In order to eliminate this difficulty and to establish a uniform class category across the three villages, the households in all three villages were stratified not according to land ownership but to per capita crop production, taking the subsistence requirement as the guideline. After discussion with the villagers, a figure of 8 maunds of paddy per adult member of a family was arrived at as being the minimum amount necessary for survival. This per capita subsistence paddy requirement was then translated into land and the households having this subsistence level of landholding were, by this definition, 'subsistence households'. In other words, the initial class differentiation is production based rather than landholding based since a fixed landholding category cannot be valid for describing class strata in areas having varying crop yields per unit of land. In this production based classification per capita landholding for the same class category varies in the three villages.

Households were thus categorized by landholding (controlled for normal village crop yield as explained above) into the a priori strata : landless, poor, subsistence, self-sufficient, surplus and rich. In this way, the categories are based on reality rather than being purely subjective and descriptive. Alternatively stratification could be based on distinctions such as whether rich peasants were landlords, capitalists etc. In this instance,

however, it would not be a distinction between rich peasants and middle peasants but between peasant and non-peasant. This is in fact, how the rural population should be classified for class analysis but which itself can only be arrived at when different relations of production have been analysed.

Admittedly, the subsistence level is more of a consumption and poverty oriented line and not related to the production process as such. Ideally it would have been best to have been able to stipulate a farm size that would enable a man not to be exploited in the labour market then that would be a determining criterion which would have some relevance for the analysis of the production process. But in order to find this point one would have to try and locate the household against its means of production and this would naturally involve further stratification of this a priori category into poor, self-sufficient, surplus and so on. Obviously, the determining point between two categories are arbitrary.

These arbitrary divisions between categories may, perhaps, be avoided by taking categories that are more directly related to relations of production. Instead of taking, rich peasants and middle peasants for instance, one could take landlords, share-croppers, primarily wage-based enterprises, family-based enterprises, and so on. On the other hand, it is in fact the means of production that largely locates a household's position in the relations of production. By and large the two things correspond to a large extent. Very large landowners, for instance, rent their land out, middle order landowners are more likely to use wage labour¹

1. Such large landowners as referred to are almost non-existent in Bangladesh, the middle order farmers as mentioned here are what have been called in this study the surplus and the rich peasants.

smaller owners are more likely to be family operated enterprises and the smallest landowners are likely to be peasants cum proletariat.

Thus stratifying a given population by its relative access to means of production is not only a convenient way but also a productive way of locating households in the labour process of production.

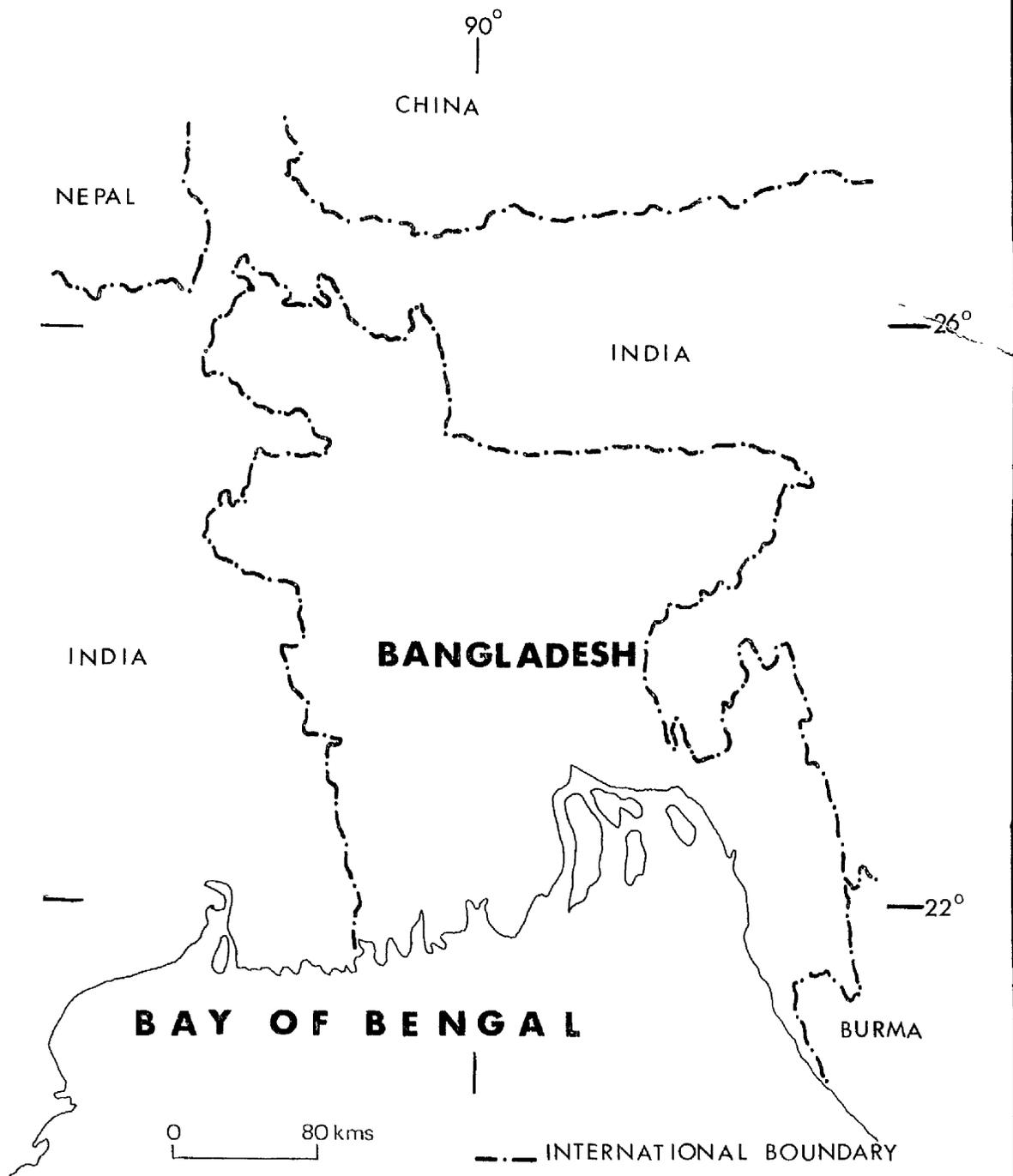
Given the intensive household questionnaires, each containing approximately 300 questions, and the large sample size it was thought necessary to hire interviewers. Thus, four local graduates and an undergraduate for the two villages in the south and two graduates for the village in the north were trained to interview the sample households. Ten per cent of the households were interviewed by me initially of which some were done in two instalments depending on the size of the households, with the trainees observing the interviews. It took just over two hours to interview an average household and the whole operation took approximately nine months.

After completion of the interviews by the assistants, 15 per cent were checked at random. Rate of error or wilful skipping of questions on the part of the interviewers was found to be negligible except for one interviewer who was dropped altogether and his households re-interviewed.

Referring to the second category of data-collection, participation and observation techniques were adopted in four forms: to obtain macro-level information on

the ecology of the villages; talking to the villagers and having selected interviews with different professional and social groups¹ and surveying the peak-season labour market, sale of principal crops and other industrial consumer goods in the village haat; intensive community questionnaires² were used to obtain macro-level socio-economic information on the core and peripheral community; and lastly, Thana Tehsil Offices and District Settlement Offices were used to check land records. At the District level, the Records Office was found to be useful for historical documents.

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1. Bank manager, fish factory manager, Circle Officers, village council officials, Tehsilders, Dafadars, labour leaders, coir manufacturers, shop-keepers and the oldest men in the villages were interviewed.
 2. The Bangladesh Institute of Development Studies kindly permitted use of their community questionnaire.



Map 1.1.1 LOCATION OF BANGLADESH.

CHAPTER 1

ECOLOGY, POVERTY AND CLASS STRUCTURE IN BANGLADESH: AN OVERVIEW

This chapter introduces the empirical background against which the subject of the study must be seen. It has four sections: (I) Agro-ecological structure, (II) Politics of Poverty and backwardness: the British and Pakistan connection, (III) Scale of poverty and inequality and (IV) Policy analysis. The first analyses the whole range of agro-ecological determinants. The last three sections are self-explanatory. The need to examine the level of poverty and inequality over time is due to its logical connection with production relations¹ and in order to help see the changing structure of class in rural Bangladesh.

1. See Introduction.

Section 1

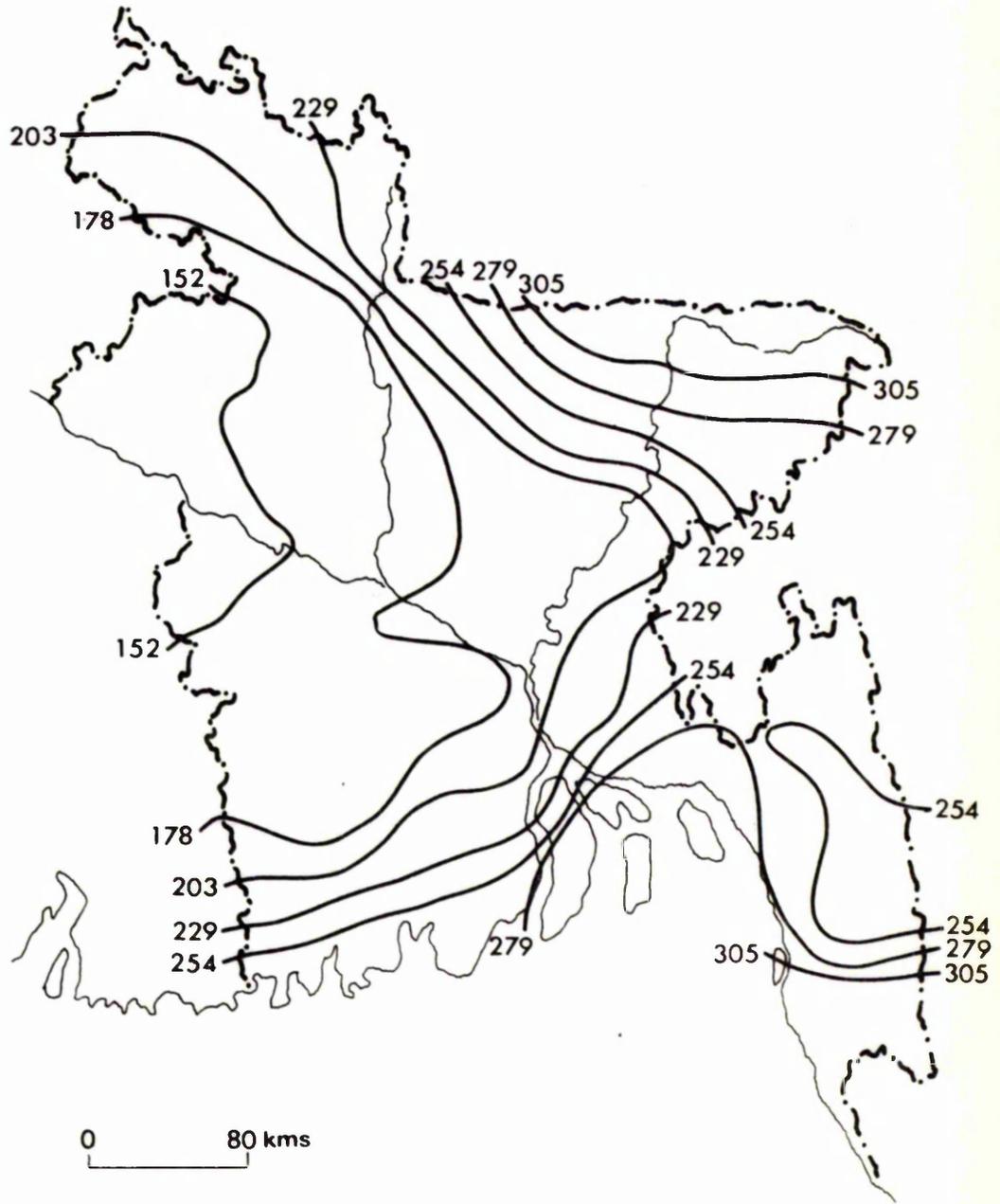
Agro-Ecological Structure

A combination of agro-ecological factors interact to determine the types of crops and cropping pattern and cycle which inevitably affects labour use especially wage labour demand, and influences the use of other inputs. These in turn determine employment, production costs and income especially of the labouring class. Thus ecology is interlinked with social relations in the very nature of agricultural production. Here, however only the ecological determinants, in other words how the various ecological factors affect agricultural production in different parts of Bangladesh are highlighted.

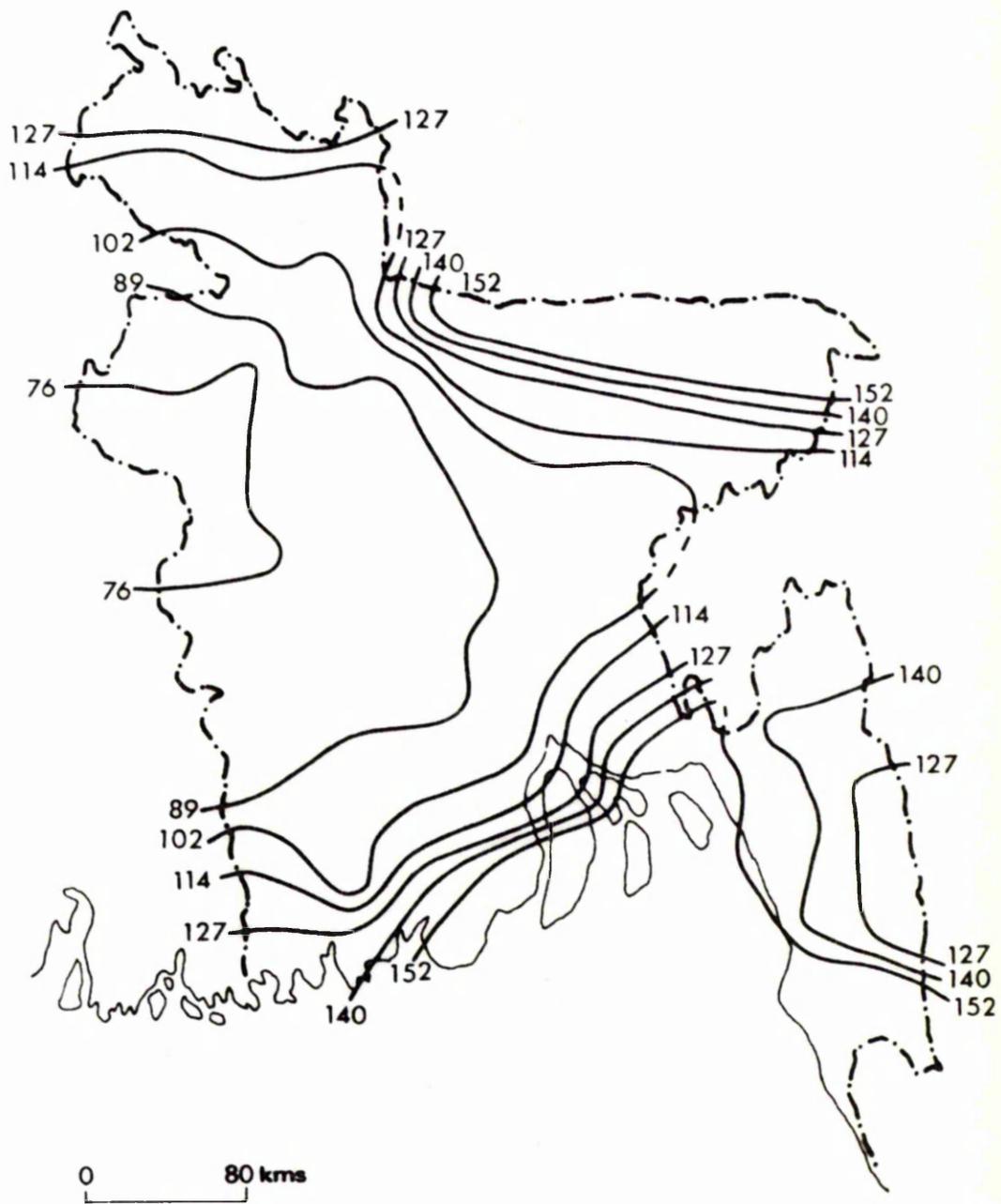
Brammer¹ illustrates how climatic, soil and hydrological factors interact to determine (a) length of the rice growing season; (b) time of sowing (land preparation); (c) rice cultivation practices (broadcast, transplanted, deepwater, intermixed and irrigated); (d) the kind of associate crop, in any, which is grown either intermixed sequentially or as an alternate with rice.

Brammer states that whether rice, together with associated crops, can be successfully grown or not, is not determined by any one factor but by a combination of physical factors

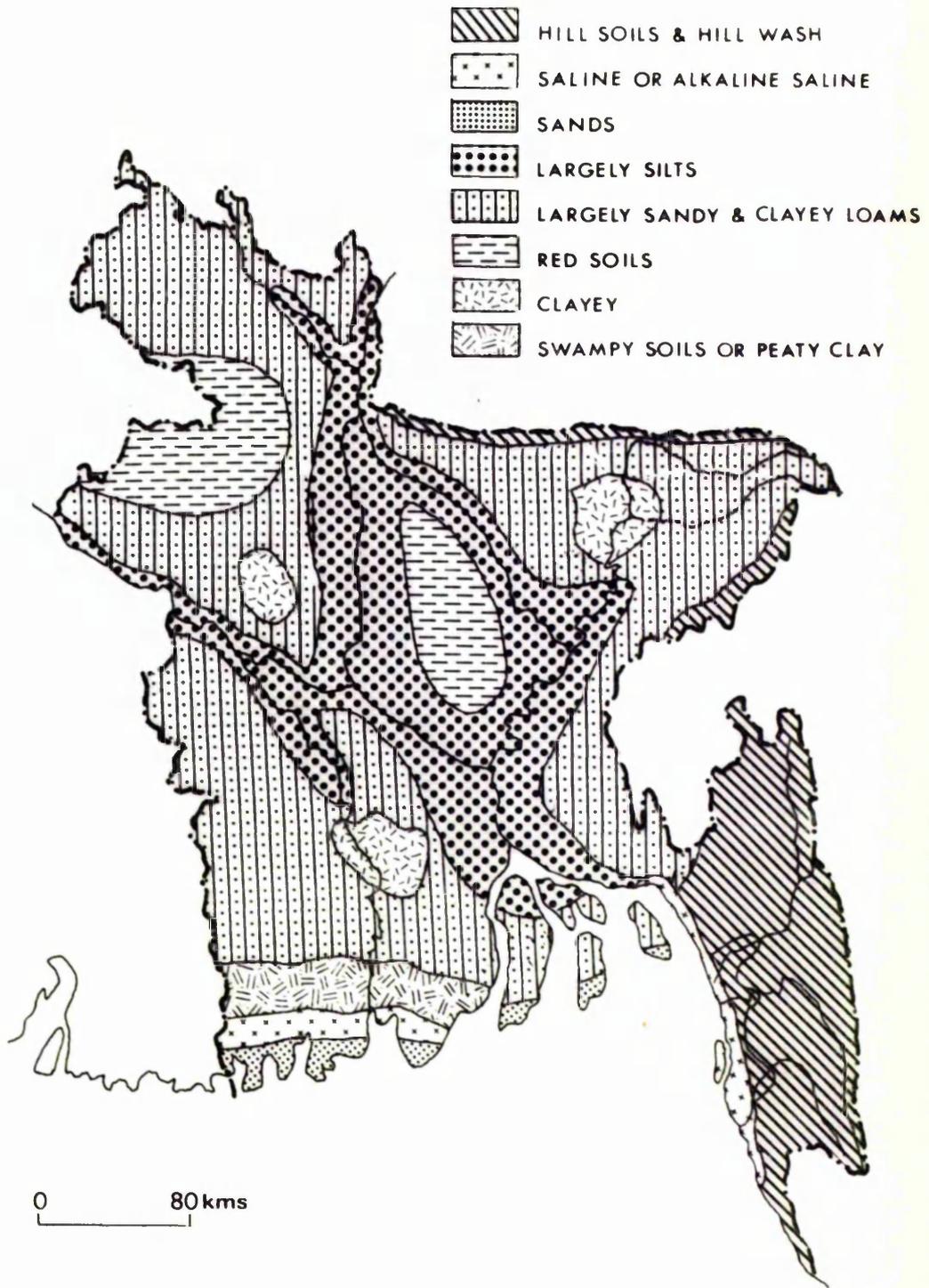
1. Brammer, H., Incorporation of Physical Determinants in Cropping Pattern Design; presented at Cropping System Symposium IRRI, Los Banos, Philippines, September, 1976. In the absence of any similar study, this part has been drawn almost in its entirety from Brammer's article.



Map 1.1. 2 CLIMATIC DIVISIONS BY NORMAL ANNUAL RAINFALL, (in centimetres).



**Map 1.1.3 CLIMATIC DIVISIONS BY MONSOON RAINFALL;
July to September, (in centimetres).**



Map 1.1. SOILS: Generalized.

which determine the length of the growing season(s) and whether the crops can obtain adequate nutritive support during this period without undue risk of destruction by meteorological, hydrological or other non-physical elements.

Length of the rice growing season : The length of the rice growing season is determined by day length, temperature regime, rainfall regime, soil moisture holding capacity, hydrological regime and sometimes soil chemical conditions. In Bangladesh, however, rainfall regime, temperature and day length can be regarded as primary determinants of rice sowing and harvesting dates. However, the influence of rainfall regime is widely modified by soils and hydrological factors.

Climatic determinants : In irrigated areas the effective beginning of the rice growing season is determined by winter temperatures. Night temperatures in December, January and part of February fall below 13°C , which severely retards the growth of rice during the winter. Brammer suggests that for those who sow boro during this time, in order not to expose the crop to pest and disease attack and waste irrigation water and labour, probably the optimum date for sowing is one which allows the seedlings to be transplanted in time to become established just as night temperatures begin to stay above 13°C ; early February near the coast, mid to late February inland.

In rainfed areas, the beginning of the rice growing season is normally determined by the date of onset of the pre-monsoon rains. This date varies from early April in the north east and near part of the coast, to late May in the extreme west when the farmer prepares and sows his land after the first heavy pre-monsoon rainfall which saturates the top soil.

The end of the rice growing season, in both rainfed and irrigated areas, is determined partly by day length and partly by the date on which night temperatures begin to fall below 20°C. Both traditional aman varieties, which are photosensitive and other varieties (including HYV) which are photo-insensitive, must be sown and transplanted by a date which will ensure that the plants will have grown beyond the flowering stage before night temperatures are liable to fall below this critical level (which interferes with fertilization).

Soil and hydrological determinants : As I have said earlier, soil and hydrological conditions modify the 'normal', climatically determined length of the rice growing season in certain seasons in certain areas. For example :

(a) Some silty Tista floodplain soils retain moisture throughout the dry season. This is partly due to a high water-table, and partly to their unusually high moisture holding capacity. Sowing of the upland rice crop, aus, commences in February-March on these soils before the pre-monsoon rains begin.

(b) Sowing is delayed on soils which are of low-moisture holding capacity throughout the dry season. These include pervious light-textured floodplain ridge soils and permeable Red-Brown Terrace Soils on the Madhupur and Barind Tracts. These soils do not have enough moisture storage capacity to carry rice seedlings through between pre-monsoon showers so that sowing of aus may not be safe until the end of May.

(c) The puddled silty or clay topsoils of Grey Terrace soils on the Barind Tract in the west of the country also do not have enough moisture holding capacity for aus to be safely sown on pre-monsoon showers. On these soils aus is usually omitted and a single crop of transplanted aman is grown, which is planted in June-July after there has been enough rainfall to flood the puddled fields. Where aus is sown late, it unduly delays transplanting of the main aman crop, with consequent reduction in yields.

Thus within the same rainfall zone, soil and hydrological conditions may vary the sowing date of rainfed aus between late February and late May, or prevent it from being grown at all.

Number of rice crops : The length of the rice growing season partly determines whether one or two rain-fed rice crops can be grown. For example :

(a) traditionally quick maturing 'upland' aus is followed by transplanted, photosensitive aman on soils which hold moisture satisfactorily during both cropping seasons and where deep flooding or salinity is not limiting. Such soils occur most extensively in the east and north.

(b) a single crop of 'upland' aus is typically grown on permeable floodplain ridge soils which cannot be puddled for transplanted rice or the growing season is too short for aman. Such soils and conditions occur most extensively in the west. An early aus crop is also grown on some low-lying soils where the rapid rise of flood water later, prevents deepwater aman from being grown.

(c) a single crop of transplanted aman is grown on soils that can be puddled or are shallowly flooded at the end of the monsoon season, but where the growing season is restricted by dry season salinity or the short duration of the rainy season. Extensive areas of such land occur in the west and the south.

(d) a single deepwater aman crop is transplanted in some north western areas especially on basin clays which stay too dry and hard for the land to be prepared before the pre-monsoon rains but which are liable to flood early and rapidly after heavy pre-monsoon showers, thus preventing normal broadcast sowing.

In addition to the above patterns determined mainly by climate and soil conditions, there are patterns determined mainly by hydrological conditions. For example :-

(a) the probable date of onset of flash floods in foothill areas, or of deep flooding in depression sites, may set a limit to the safe harvesting period of boro or aus.

(b) mixed aus and deepwater aman grown mainly on relatively permeable floodplain ridge soils which are not flooded deeper than 60-90 cm by July (when the aus is harvested leaving the aman to continue growing with the rising floodwater until it is harvested, on the recession of the floodwater, in October-December).

(c) deepwater aman alone, grown mainly on deeply flooded basin and valley sites in areas where the risk of loss by rapidly rising floodwater is not too great.

(d) boro grown on basin and valley sites which remain wet throughout the dry season (or where irrigation can be provided) and where the risk of early flooding (in March-April) is not too severe.

Some deeply flooded land is not used for rice at all. This may be due to lack of irrigation water for boro; too great a depth of water in the dry season for transplanting boro; risk of early floods; mucky soils with too low bearing capacity; salinity; or acid sulphate conditions.

Concerning non-rice associate crops, it would be adequate to point out, since we are not focusing on this, that they are grown both sequentially and inter-sown with rice. Their cultivation depends more on hydrological conditions and soil moisture properties than on climatic or other soil factors. They can be divided into three broad groups - early, middle and late - according to their time of sowing.

Almost all are dryland crops but some (jute, sesamum, millets and chillies, for example) apparently tolerate flooding at mature stages of growth. The dry season crops where they are not irrigated, are dependent on residual soil moisture.

The most important of these non-rice crops particularly in economic terms, is jute. It is a normal rotation crop with aus and aman in many parts of the country. Jute is substituted for aus or deepwater aman every three or four years usually on loamy soils. It is followed by transplanted aman on relatively higher land in areas where early rains or moisture retentive soils allow jute to be sown early enough for harvesting in July-August, and where the soils can later be puddled for transplanted rice. Elsewhere jute is usually followed by rabi crops.

Dryland Fallow : Much rice land remains fallow in the dry season because of the adverse physical or chemical soil conditions. Most of this is in fact transplanted aman land. Puddled silty or clay top soils often with a strong ploughpan, commonly stay wet early in the dry season, then quickly become dry and hard, providing both a poor seed-bed and very little moisture for dryland crops that might be sown. Extensive areas of transplanted aman land in coastal areas also become saline during the dry season. Much of the broadcast aman land, mainly where basin soils stay wet late into the dry season and/or have a clay topsoil which becomes very hard when dry, remains fallow during this period. Most hill soils and some sandy floodplain ridge soils used for aus remain fallow in the dry season due to poor moisture retention capacity.¹

1. Based on the characteristic determinants in different areas of Bangladesh, the cropping pattern that has evolved can be seen in Appendix II.

Before leaving this discussion of the physiographic and economic determinants and moving on to the second section of this chapter dealing with the politics of poverty within the broader framework of class structure, let us combine the above determinants in the context of 2 regions in order to demonstrate their role in restricting some areas to mono-cropping and their interaction in others to produce diverse cropping patterns.

1. Level Barind Tract

climate : high rainfall from mid-July to October; practically no rainfall from November to May; very little rainfall from June to mid-July.

hydrology : above flood level.

drainage : poorly drained (water remains stagnant along field bunds for a considerable period).

soil condition : silt loams to clay loams over compact clay; low moisture retentive capacity during dry season; becomes extremely droughty from end of December.

crop rotation : transplanted aman followed by fallow.

2. Old Brahmaputra Floodplain

climate : high rainfall from May to October; slight rain from November to mid-March; moderate rain from mid-March to April.

hydrology : medium highland (flooded up to 3 feet).

drainage : moderately permeable; floodwater receded by end of October.

soil
condition : silt loams to silty clay loams throughout;
high moisture retention capacity during dry
season; do not become droughty until March.

crop
rotation : aus - transplanted aman - rabi crops¹

1. See Rahman, M.R. On the Influence of Soil Characteristics on Cropping Pattern in Bangladesh - some notes, 1977.
Department of Soil Survey, Dacca.

Section II

The Politics of Poverty and Backwardness : the British and Pakistan Connection

1. Some Theoretical Arguments

In a predominantly rice producing economy, poverty basically means low productivity in agriculture. The argument is that an increase in agricultural output and more particularly an increase in production per head of population engaged in agriculture, is a necessary precondition - or at least concomitant, of development (see Southworth and Johnston, 1967, ch.1; Jones and Woolf 1969, Introduction). Thus development involves the increase in volume of goods and services for human consumption.

Agricultural backwardness has been explained by two opposite views. There are those who believe that the problem lies not in whether or not farms are under resident or absentee ownership, small or large, private or public enterprises and whether the production is for home consumption or for sale (Schultz:1964:29) but the main reason for low average incomes in the so called overpopulated areas, is the abundance of unskilled or semi-skilled labour relative to the available land and capital (Bauer and Yamey:1957:210). It is also argued that poverty is caused by the relative failure of a market economy to penetrate very far into the countryside and to put the peasants into a new situation to which they would seem to be quite capable of responding with a sharp rise in output (Barrington Moore, Jr:1969:406). There are others in the same school who equally find the institutional frame work of village structure of secondary importance and emphasize the need for the introduction of new technology (Lewis:1970:136).

On the other hand the second group, within which there are in fact, two sub-groups, emphasizes that 'from the very beginning of sedentary agriculture, rights in land have determined who has authority, influence and wealth, and formed the different agrarian structures and institutions that decide the productivity of land and labour. In developed and underdeveloped countries alike, productivity of land and labour is fundamentally a function of the incentives and protection, offered to the tiller of the soil by the agrarian structure.' (Jacoby:1971:72-73) Thus 'fundamental changes in the traditional agrarian structure and in the attitudes of those living and working within it are crucial to a solution of this problem.' (Myrdal:1968:Vol II:1366). The other view in the same school is that the existing structure in many areas may be perfectly compatible with growth and productivity but the high social costs associated with such a growth process, growing inequalities, proletarianization of the peasantry and social tension for example, are unacceptable. In practice these two views are combined and the argument follows that the existing agrarian structure not only does not permit growth with equity but in fact inhibits growth precisely by perpetuating inequities. (Abdullah:1978:6)

Broadly, the second school argues that agrarian structures are frequently characterized by a highly skewed distribution of land whose possession tends to be highly correlated with command over other resources.

It is also argued that the existing inequitable structure subverts policy measures and public works programmes may be opposed or diverted from more socially profitable areas to the services of the rural elite.

Finally, the maldistribution of income associated with existing structures impairs the internal market demand for consumer goods, thus frustrating industrial growth. It also leads to conspicuous consumption rather than savings on the part of the rich, malnutrition and the consequent waste of human resources and inhibition of social mobility. (Carroll:1967:318-319; Myrdal:1970:54)

Abdullah points out the weaknesses inherent in the implicit ad hoc, empiricist approach in which various disconnected elements - holding size, share cropping, money lending and attitudes for example - are picked up and examined for their possible effects on growth. This approach is shared by both parties to the debate. To him the question of the interaction of technological and institutional factors is inadequately and simplistically posed.

One result of this is that implicit attitudes on this question range from a mechanical determinism according to which reforms in the agrarian structure are seen as simple responses to new technical or market opportunities to a naive and somewhat moralizing voluntarism passionately urging regimes to commit suicide by undercutting their own class base. (Abdullah:1978:8)

Abdullah points out that it is meaningless to ask whether or not a particular agrarian structure is a barrier to growth.

One must ask rather whether, and how, the social formation of which the agrarian structure is a part is prejudicial to the development of capitalism, whether, and why, the growth potential of capitalism is exhausted for this social formation what the tendencies of development - 'the laws of motion' - of this social formation are, and whether and in what areas the social formation allows autonomy to the political level, so that purposeful interventions ahead of technical change are possible. (Ibid:9)

He suggests that to clear the ground for a meaningful analysis what is needed is

a set of concepts that will enable us to grasp theoretically

the essential relationships that characterize the organization of agriculture and its dialectical interaction with the total social reality. The concept of the agrarian structure must be anchored in such an analysis. (Ibid:11).

2. Poverty and Stagnation in Bengal : the British Connection

The culture of poverty is both an adaptation and a reaction of the poor to their marginal position in a class stratified, high individuated, capitalistic society. It represents an effort to cope with feelings of hopelessness and despair... Most frequently the culture of poverty develops when a stratified social and economic system is breaking down or is being replaced by another ... Often it results from imperial conquest in which the native social and economic structure is smashed and the natives are maintained in a servile colonial status, sometimes for many generations. (Oscar Lewis:1963:p.xli)

The purpose of the analysis of the historic process is to explain that the descent of today's poor countries into underdevelopment did not occur independently of what was happening in the rest of the world.

The expansion of Europe throughout the world was an outcome of the competition among mercantilist-capitalist states for trading advantages. Its object was to obtain monopoly control of the most lucrative trading areas. Europe's tendency to run a substantial balance of payments deficit in its trade with Asia was met either by forcing down the price of Asian products or increasing the demand for goods which Europe could supply. (Griffin:1969) In the context of India, the English destroyed the Indian textile industry and then proceeded to supply India with cotton goods from Great Britain.¹

But the principal features of colonial development were

1. For a discussion on the domination of the rest of the world as the vital ingredient in Europe's recipe for rapid economic growth, see Hobsbawm:1968; Nurkse:1953; Bagchi:1972:34-67;219-253).

characterised by the impact of the British Land Settlements on the agrarian structure, combined with the integration of India into the world capitalist system.

The British Raj, in order to meet the twin purposes of securing the maximum amount of revenue from the land and retaining power and authority in India by creating a class of collaborators who would give them their support, in 1793 under Lord Cornwallis, settled with the tax-gatherers in Mughul India under the established landed families of Bengal (Abdullah:1976:91-93) This collaborator class or the zamindars were for the first time given proprietary rights in land and in return they paid revenue, fixed in perpetuity, to the Government.

But they never realized that, in depriving the peasant of his traditional and permanent right to occupy the land, they were making him, (throughout the greatest part of India) a slave of new owners; and that exploitation of the peasant now took the place of exploitation of resources. (Dumont:1973:135)

Since the zamindars were left free to exact as much as possible from the tenants, provided that the annual fixed assessment was paid to the State, the system resulted in unprecedented sub-infeudation and rack-renting. The Simon Commission pointed out in 1930 that in some cases there were as many as fifty intermediary rent-receiving interests between the primary producer and the State. This indicates that the Government's revenue demands absorbed only a fraction of the peasants' surplus produce, the bulk being appropriated by a hierarchy of parasitic intermediaries. In 1900, for example the revenue demanded by the Government was Tk 3.90 crores but according to the Cess Report of the Revenue Board, the zamindars obtained Tk 16.50 crores. The peasants were thus paying four times more to the zamindars than was due for collection as revenue. For a century and a half, the zamindars appropriated a massive total of approximately Tk. 1800 crores. (Mukerjee R.:1958:31)

In addition there were illegal exactions or abwabs which alone in some cases were more than the entire Government revenue for a given area. (Ibid:31; also Siddiqui K.:1978:31-33)

In fact

rural societies were not only compelled to pay taxes, but also rents which demographic developments soon made outrageous; some peasants took to running away. A new law gave the zamindars the right to catch them, and this completed the dismemberment of traditional rural society. (Dumont:1965:135)¹

Within such a structure, only the zamindars, the talukdars the small landlords and the rich peasants had some investible surplus. The primary producers, the middle peasants and the poor peasants who mostly used family labour, (Agricultural Labour Enquiry, Vol.I:1955), had no such surplus. In fact they became increasingly dependant. While the zamindars expended their wealth in conspicuous consumption, the small landlords extracted their surplus from land-rent and used it in comfortable living. The rich peasants cultivated using labour paid only subsistence wages (Patnaik:1972b:24) and inevitably put their investible funds into traditional areas: land purchase, trade and money lending. As long as the mass of destitute peasants and labourers existed, they became increasingly dependent on the rich peasants. For the latter, money lending was perhaps the most lucrative and secure form of investment for their capital giving them in addition to prospects of exorbitant economic gains, promises of extra-economic power. The security for loans was land, crops, or failing all else, the peasant's labour. Land purchase increased their status and strengthened their power base. The growth of commerce and exchange merely

1. For an elaborate discussion of the Permanent Settlement and its impact on the Bengal agrarian structure, the interested reader may be referred to Abdullah:1976, and Siddiqui:1978. For differentiation of the peasantry and marketed surplus, see Byres:1974; Narain and Joshi:1969; for market participation see Narain:1961.

increased the profitability of investing along traditional lines. In short, all the evidence indicates, that

the rate of surplus extraction was so high that there existed no incentive on the part of any rural class without investible funds, to change the organisational basis of agricultural production or to undertake productive investment in the land. (Ibid:24)

Commercialization of agriculture had already caused some differentiation among the peasantry during Mughul India (Habib:1963:39-52, 61-81). The British expedited this process by giving momentum to commercialization and commodity production by increasing monetization, profit possibilities and legalising the transferability of land. Within the 'context of a private property structure of landholding' (Thorner:1956:124), land became a commodity and could be transferred within the framework of colonial law. (Jahangir: 1976:19) The result was increased polarization within the peasantry.

The imposition by the British of the free trade doctrine under unequal conditions accelerated the process of de-industrialization of the mode of localised production and tied the Indian economy to the metropolitan economy of Britain. In Bengal, emphasis was placed on developing cash crop agriculture and railways and steamships were introduced in the nineteenth century in order to carry raw materials such as jute, cotton, indigo and opium¹ which were produced by the Bengali peasants to help meet the increasing burden of rents in addition to taxes. Thus the agricultural produce was tied to British Industry and this prevented local exchange between Bengali artisans and peasants. Bengal became the market for imported British manufactured goods, artisans were pauperised and

1. See Kuchhal, S.C. The Industrial Economy of India:1965:64

industrial decay was complete in Bengal by the 1880s.
(Griffin:1969:36-37; Jahangir:1976:19-20).

In view of this imposed stagnation in non-agricultural production it is not surprising that agricultural organisation and techniques should have remained virtually static in the colonial period. There were, of course, other factors in addition to the penetration of money and exchange which, interacting in a complex manner, were responsible for this stagnation. But

most related in one way or another, to the especial position of India as a colony, the development of which was necessarily geared to the interests of the metropolis, Great Britain. The one-sided, distorted development which leads to a penetration of exchange and growth of commerce, to the pauperisation of large sections of the peasantry, without the parallel expansion of industry, and without the total breaking up of pre-capitalist organisation and primitive techniques, constitutes the essence of underdevelopment. (Patnaik:1972b: 23-24)

Thus,

the conversion of tax collectors into landlords, the emphasis of production of cash crops for export and the population explosion which began at the end of the nineteenth century were jointly responsible for the final disaster. The mass of the people were reduced to a subsistence income which hovered precariously above the famine level. (Griffin:1969:38).

3. Poverty and Stagnation : the Pakistan connection and emergence of Bangladesh

The uneven development of the Hindu and Muslim bourgeoisie led to the partition of India¹. In what is now Bangladesh, this meant the substitution of dominance by British mercantile capital and Marwari interests in various commodity trades, and Bengali Hindus and their intermediaries on the land, by that of Pakistani 'colonial' rule. In West Pakistan the Muslim commercial class, in an environment free of competition from non-Muslims,² continued their alliance with the landlords and formed the ruling elite of the country. No such strong landed aristocracy, nor a commercial class existed among the Bengalis. The Bengali Muslim bourgeoisie were largely restricted to the ranks of an incipient class of rich peasants with those who were ambitious going into government service or the professions. They had neither the funds nor the experience to fill the breach left by the departing Hindus and the Marwari business men.

Understandably, therefore, the political scene in Pakistan came to be dominated by the ever-widening economic disparity between the two wings, suspension of parliamentary democracy since 1958, domination by the West Pakistan ruling military-bureaucratic elite and the commercial-industrial bourgeoisie in which the latter saw East Pakistan both as a market for its exportable surplus and as a source of resources to fund their capitalist accumulation. The ruling elite aided this process through the state machinery, by directly attracting surplus through the development budget and the expropriation of external resource inflows. Thus, by 1958, control and domination of industry, trade and finance within the East

1. Abdullah, A:1972:The Class Basis of Nationalism : Pakistan and Bangladesh (mimeo).

2. See Sayeed, K. bin:1968:Pakistan, The Formative Phase, 1857-1948, Oxford University Press, London:7-11.

Pakistan economy by the West Pakistani industrial bourgeoisie was complete. The result was that by the end of the 1960s twenty-two West Pakistani families owned 66 per cent of Pakistan's industry, 79 per cent of its insurance and 80 per cent of its banking. (Alavi:1973:157)

Thus for the West Pakistani elite their power derived from a solid economic base and 'parliamentary processes would be at best a superfluous frill to adorn their dominance, and at worst a possible threat to that dominance'. For the Bengali middle class, on the other hand, mass politics offered the one possible avenue to power and influence. Thus the stage was set for a fundamental conflict of interests. (Abdullah:1972:13-15)

In East Pakistan, with the abolition of landlordism in 1951, in the absence of a strong commercial capitalist group, power came into the hands of the middle class and the power struggle, accordingly took place between the alliance of the military-bureaucracy-industrial bourgeoisie of the West and the professional middle class in the East. (Maniruzzaman:1966:84) 'The rise of Bengali nationalism was an ideological reflection of this "class struggle", just as the rise of Muslim nationalism was an ideological reflection of the struggle for survival of the Muslim elite.' (Abdullah:1972:17)

Although the Awami League dominated United Front routed the Muslim League as a political force from East Pakistan as early as 1954, the Bengali middle class was still not strong enough for the final confrontation. They had to wait until they acquired the 'economic muscle' through Ayub Khan's so called 'decade of development' when a conscious attempt was made to build up a Bengali capitalist class from within

the Bengali petty bourgeoisie to assure and strengthen Ayub's political hegemony.

Their last decisive struggle consisted of three rallying points in three fields : 'In politics, regional autonomy; in economics, economic disparity; and in the cultural field; the language issue.' (Ibid:21) The language issue was an ideal adjunct to the political and economic struggle of the Bengali middle class, and served the same integrative and tension reducing function that Islam did for the Pakistan movement. Regional autonomy, on the other hand, as formulated in the six point programme of the Awami League, promised something to everyone but was clearly and essentially bourgeois-nationalist in character and obviously had little relevance to their common welfare. (Ibid:26)

In the rural areas Ayub's strategy was to seek the support of the surplus farmers through the medium of the Basic Democracy system and the institution of public works especially the Rural Works Programme to build up support. The government emerged as a modernising agent through the supply of credit, fertilizer, seeds, irrigation technology and funds for rural public works and this provided scope for surplus extraction for the rich peasants. The rich peasant in turn used his political domination of the rural areas to control state resources as an instrument of patronage or to obtain them at subsidized prices so that he could extract the surplus by marketing to the poor at scarcity prices. The growth and prosperity of this class accelerated through the continuing medium of surplus extraction as state intervention increased.

Clearly the benefits of the Ayub strategy and the patronage of West Pakistani industrial capital did not percolate down to the great majority and benefited only the Basic Democrats

in the rural areas and some narrow urban groups. It was the elements within these classes, who did not have a share of the spoils or could not improve their prospects during Ayub's 'decade of development' who sought to promote their material aspirations through the Awami League which had been spearheading Bengali nationalist values. The bulk of the Awami League support base, thus, came from the class of petty bourgeoisie, drawn from the lower level of government servants, small businessmen whose businesses had not benefited from state patronage, district court lawyers who had not shared in the patronage of Pakistani business firms, school and college teachers who had not been sent abroad under government scholarships, and surplus farmers who had not had access to the circle officer or a hand in the distribution of works programme funds. (Sobhan and Ahmed:1976:21)

There are two important points here. Firstly, whether we consider the Bengali industrial bourgeoisie, the commercial capitalists, the surplus farmers in the rural areas, or for that matter, the bureaucracy, there was a distinctly identifiable comprador character in that they all benefited either as a direct function of state patronage or out of the patronage of the West Pakistani ruling military bureaucracy and industrial capital. Secondly, that although there was a contradiction of interest between those elements of the business community and surplus farmers who prospered under the Ayub regime and those who thrived under the Awami League, the class character of the two groups was the same. Both believed in maximising surplus extraction and using it in consumption rather than in production. Both were of petty-bourgeois origin. Politically, they were opposition factions but they were not antagonistic classes and in such cases, shifts in political allegiance take place as a rule rather than an exception.

Thus, it was the interests of different shades of the Bengali middle classes who spearheaded the 1969 movement, which gained its own momentum as it grew and initiated the chain of events which eventually culminated in the liberation of Bangladesh. The Mukti Bahini returned to the capital city, each claiming to be holier than thou, and bringing the Indian Army in as an equal partner in the victory. Politicians made exhortations about national reconstruction and world aid poured in. But the euphoria was destined to be short lived. The class character of the ruling party soon became evident.

While the development of a small industrial and a significant commercial bourgeoisie in East Pakistan was made possible, principally by the innate strength of the state apparatus and its integration with the forces of capitalism during Ayub's regime, such development was not possible when the Awami League came to power in Bangladesh. The state machinery was weakened, the army was dispersed and disorganised and the bureaucracy was made subsidiary to the power of the party. The institutional agencies were restructured to help denude the bureaucracy of authority. The infrastructure had collapsed and the economy had ground to a halt.

The power of the state during the post-liberation period under the Awami League lay in a precarious balance between meeting the plunder of the petty-bourgeois power base which the party was built to serve, and the raids of Indian economic interests to which the Awami League was committed in terms of the price for ensuring seizure of power, and on the other hand in its ability to sustain itself. In this, the resources and the power of the state machinery proved to be hopelessly inadequate.

In the preceding section I have established the links between economic and political factors and the current polarisation, differentiation and expropriation of the peasantry. Against this background I shall now examine the principal demographic characteristics, the distribution of land holding and income and the patterns of economic growth.

Section III

Scale of Poverty and Inequality

1. Farm Size and Distribution of Land

According to the Master Survey of Agriculture 1967-68, the total number of family farms in Bangladesh was 6,870,000 and in 1970 this figure had increased to 7 million. The total farm area was 22 million acres and there was virtually no room for a further increase in land under cultivation. The average farm size was 3.5 acres in 1960¹, had declined to 3.2 acres² in 1967-68 and had further declined to 2.8 acres in 1974³. Regional variations in the average size of holding are not very significant whether measured in terms of ownership or operational holding.

Although the average holding size is small, the distribution of land is highly skewed. Almost 33 per cent of households are landless i.e. over 27 per cent of the total population. Landlessness increased from 17 per cent in 1960, to 20 per cent in 1968 and leaped to 33 per cent in 1977⁴. In 17 years landlessness grew faster than population growth rate.

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1. Agricultural Census 1960.
 2. Master Survey of Agriculture, 1967-68.
 3. Based on a smaller survey by Alamgir, (BIDS), in 1974.
 4. Different surveys and reports have quoted different figures for landlessness. Thus, the IRDP Benchmark Survey (1973-74) quotes 37.60% (38% based on a more intensive study of 14 villages); Stepanek's finding is 50%; and the 1977 Land Occupancy Survey provides the figure of 32.79%. Part of the difference may be explained by definitional differences and part by data quality, or perhaps more appropriately, the lack of it.

Table : 1.3.1

Size Distribution of Land in Bangladesh

Peasant Strata (by holding size in acres)	1960 ^a		1968 ^b		1977 ^c	
	% of total farms	% of total land	% of total farms	% of land	% of total farms	% of land
Landless*	17.2	-	20	-	32.79*	-
Small (0.1-2.5)	51.47	15	56.63	21.32	66.77	25.17
Middle (2.5-7.5)	38.00	47	35.52	47.74	29.04	49.24
Rich (7.5 acres and above)	10.53	38	7.85	30.94	4.12	25.59
	100	100	100	100	100	100

- Sources:
- a) Agricultural Census, 1960.
 - b) Master Survey of Agriculture, 1967-68, 7th round, 2nd series.
 - c) Land Occupancy Survey, 1977; Summary Report, Bangladesh Bureau of Statistics. For 1977 figures the holding sizes have been slightly altered to accommodate the new classification categories in the Summary Report, as follows: Small 0.01-2.00; Middle 2.00-8.00; and Rich 8.00 and above.

* Landlessness is defined as including those households having no farm land and little or no homestead; figures quoted for 1977 vary widely, e.g. 37.60% (IRDP Benchmark Survey, 1973-74); 50% (Stepanek, 1979:100-101).

The Agricultural Census (1960) and the Master Survey of Agriculture (1967-68) adopted 2.5 acres and 7.5 acres as the dividing line for identifying small, middle and rich peasants. Although in Table 1.3.1 these categories have

been maintained for the 1960 and 1967-68 figures, for 1977 the dividing lines have been slightly changed to 3 and 8 acres because the data are based on the Land Occupancy Survey.

From the point of view of Table 1.3.1, significant changes have taken place over the years. Landlessness has increased progressively, and particularly dramatically between 1968 and 1977; the number of small peasants has also increased progressively and significantly; and although the number of middle peasants has declined, area farmed by them has in fact increased; finally, the number of rich peasants together with their farmed area have declined steadily. It seems that among the land holding groups, although in absolute terms inequality in terms of land distribution exists, over the years polarization has reduced. However, when the figures are seen in terms of the entire population and not just the land holding groups, such optimism is immediately and rightly challenged. It is clear that although the position of the big farmers has been weakened at the top, more and more peasants have been deprived of their land at the bottom.

Alamgir has argued rightly that, in the middle peasant group, two forces have been in operation. These are population pressure which together with the law of inheritance has resulted in the sub-division and fragmentation of land (this also explains the decreasing average farm size) and the acquisition of new land by the relatively affluent thus increasing their share in the total land holding.

For the small peasants, the swelling of their numbers has been as a result of a pauperization process due to the forces of the market and of usury.

Thus, Bangladesh is principally a differentiated peasant economy where the dominant contradiction in the agrarian formation is that between those with land and those without.

2. Demography and Food Production

The relationship between the postulated rate of increase of population and the rate at which food output can be increased is critical. The population of Bangladesh was estimated at 76.2 million in 1974.¹ This makes Bangladesh the most densely populated with 1371 persons to the square mile, of all the countries of a reasonable size.² The rate of population growth between 1961 and 1974 was 2.8 per cent.³

As far as food output is concerned, estimates of the sectoral composition of national income show that crop production contributes nearly three-quarters of agricultural value-added and 70 per cent of this comes from rice alone.⁴ Historically, per capita production of rice seems to have declined. During the first half of this century rice production (which contributed about 90 per cent of foodgrain production) registered a decline of

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1. This was the adjusted figure from the post-census survey following the 1974 census and takes account of the underestimation of as much as 8 per cent.
 2. No other country with a population of more than 10 millions records a higher density.
 3. UN Demographic Yearbook:1974:table 3:111; quoted in Hossain:op.cit.:11-12.
 4. Hossain:1977:17; based on figures in Khan and Bergan (1966).

0.76 per cent per annum in undivided Bengal.(Blyn:1966:131)¹.

Table : 1.3.2

Demographic Features of Bangladesh, 1951 to 1974

	1951	1961	1974
Population (millions)	41.9	53.4	76.2
Rate of population growth	2.44	2.77	
Density of population (per square mile)	754	961	1371
Labour force (% of population)	30.7	33.2	35.2
Male	54.2	45.2	50.6
Female	5.0	10.8	18.6
Agricultural labour force (in % total labour force)	83.2	85.1	55.4
Male	83.3	84.1	67.8
Female	82.4	91.7	19.5

Sources and notes:

The figure of population for 1961 is from PIDE report(1969/70) which adjusts the 1961 census figure on the basis of the post-census population growth estimation (PGE) information.

The 1974 population estimate is the adjusted figure from the 1974 census on the basis of a post-census survey which showed a 16 per cent under-count in the four big cities and a 6 per cent one in other areas (see Bangladesh Population Census 1974, p.(i)).

All other figures are from the reports of the 1961 and 1974 censuses.

1. After partition especially between the early 50s and late 60s production of rice increased by over 40 per cent from about 7½ million tons to up to 10¾ million tons.(Faahland and Parkinson:1976:10 and 71). However, Hossain notes three distinct phases of growth of production: apperiod of near stagnation up to 1958-59 followed by a period of high growth up to 1964-65 and then a period of moderate growth until 1975-76. Falcon

The trend in the rate of growth of food crops during the period between 1947-48 and 1975-76 was 2.08 per cent of which 0.95 per cent was contributed by acreage expansion and 1.13 per cent by yield improvement.¹ During the same period, population grew by around 2.6 per cent and therefore per capita production of rice declined over the years. Consequently, the import of foodgrains, partly from Pakistan and partly from abroad, increased from about $\frac{1}{2}$ million tons in the 1950s to about $1\frac{3}{4}$ million tons at the end of the 1960s. (Faahland and Parkinson:10)²

1. Contd.

and Gotsch estimate that during the peak period, that is between 1958-59 and 1964-65, rice production grew by 3.4 per cent. (Falcon and Gotsch:1968:table 9.11:292). While in the earlier period increased production was due more to double cropping rather than to an increase in yield, in the latter periods it was found to be owing to an improvement in yield per acre and more specifically the yield of aman rice, (see Faahland and Parkinson:p.10; Falcon and Gotsch:p.292) which resulted from the introduction of the seed-fertilizer technology during this period.

1. See Hossain, M., Chart 1:p.20 and 21.

2. The World Bank by studying the potential for increased production came to the conclusion that by changing the inputs alone - i.e. by introducing new seeds, fertilisers and pesticides - it would be possible to double rice output; by using irrigation technology as extensively as possible, output could be trebled and finally with the further addition of drainage and flood control, it would be possible to quadruple output. However, the economic constraints, like the progressive costs and the time required for implementation of such extensive technology, were not taken into account by the World Bank researchers. See World Bank Report 1971.

3. Economic Growth Performance

With a per capita GDP of \$80, Bangladesh is one of the poorest countries in the world.¹ The gross domestic product of the economy is estimated by using the same base year, at \$6400 million; gross investment at \$550 million to include both public and private investments and net capital imports at \$800 million. These estimates determine the structure of the economy in the base year 1975 as shown in Table 1.3.3. including levels of overall and per capita consumption and savings. It reflects the

Table 1.3.3

Development Scene (values in approximate 1974 prices in US\$ equivalent)

Population and Major National Accounts Magnitudes	1975
Population (mill.)	80
Gross Domestic Product (mill.\$)	6400
Gross Investment	550
Net Capital Import	800
Domestic Savings	-250
Consumption	6650
Gross Product Per Capita (\$)	80
Consumption Per Capita	83
Domestic Savings Per Capita (\$)	-3
Gross Investment as Per Cent of GDP	8
Capital Import as Per Cent of GDP	12
Domestic Savings as Per Cent of GDP	-4

Source : Faahland and Parkinson: p.68

extremely low level of production, income and productivity, the relatively large addition to domestic production represented by foreign assistance and the dependence of Bangladesh on foreign supplies for investments and for food and other consumption items (Ibid:69).

1. Taking 1975 as the base year this figure is higher than the figure for GNP of \$70 used by the World Bank (World Bank Atlas, 1974). The difference in concepts used- GDP versus GNP, is numerically insignificant.

Information on the composition of GDP and changes in its level since partition of the subcontinent, is given in Table 1.3.4. This table shows that in the fifties the economy made little progress, with GDP growing at a rate of 2.3 per cent compared with a population growth rate of 2.5 per cent during the same period. In the sixties, on the other hand, growth was much more satisfactory with GDP growing at a 1.3 per cent higher rate than the population growth rate. The early seventies was a period of relapse. Indeed in 1974-75 GDP was 2.5 per cent lower than the 1969-70 level. (Government of Bangladesh 1976c). The following year there was a bumper harvest increasing rice production by 17.7 per cent over the previous year and per capita GDP reached the 1969-70 level. During the period between 1949-50 and 1975-76 the annual rate of growth in GDP was about 2.7 per cent. Given the population growth rate of 2.6 per cent during the same period, it would be reasonable to conclude, that the long term growth in per capita income in Bangladesh has not been significantly above zero. (Hossain:op.cit.:14)

4. Extent of Poverty, Employment and Income Distribution

In the circumstances outlined above, the poorer section of the population suffer most. Available data indicate that the most important sources of poverty and inequality are the distribution of property, the structure of the relations owners and producers enter into in the process of production, and finally, the distribution of income. The reason for the continuing existence of a large number of people below the poverty line¹ is lack of access and control over land, the principal means of production (Bardhan:April 1973; Alamgir:April 1975), and the relative absence of non-agricultural employment in the rural areas (Clay:1977). In the urban

1. The assumed poverty line is Rs.250 in rural areas and Rs.300 in urban areas both measured in constant 1959/60 prices.

Table : 1.3.4

GROWTH AND COMPOSITION OF GROSS DOMESTIC PRODUCT, 1949-50 TO 1975-76*

	1949-50	1959-60	1969-70	1975-76
GDP (m. taka at 1959-60 price)	11298	14161	21507	23495
<u>Composition of GDP (in % of total)</u>				
Agriculture	65.4	60.4	53.3	51.8
Manufacturing:				
Small scale	2.4	3.1	4.1	3.3
Large scale	0.6	2.9	3.6	3.2
<u>Rates of Growth</u>				
GDP	2.28	4.26	1.48	
Agriculture	1.46	2.98	1.02	
Manufacturing	9.65	7.04	-1.65	
Population	2.47	2.98	1.48	

Sources and notes: The figures for 1949-50 to 1969-70 are from Alamgir and Berlage (1974), appendix table 4, pp. 167-168. Figures for 1975-75 are from Bangladesh Economic Survey - 1975-76. They are reported at 1972-73 constant prices; here they have been converted at 1959-60 prices on the basis of figures for 1969-70 and 1972-73 prices.

*Adapted from Faahland, J. and Parkinson, J.R. Bangladesh - The Test Case of Development, University Press, 1976.

areas this has been caused by the lack of access to such income generating assets as equipment and machinery and the shortage of industrial employment (Alamgir:July 1975). Market forces have also contributed to this process. Between 1963-64 and 1967-68, inequality in landholding was reduced, consistent with the trend in income inequality. During the later period, however, inequality increased (Alamgir:April 1975:173). During 1963-64 almost 50 million people in the rural areas and over 3 million in the urban areas, lived below the poverty line. Corresponding figures for 1968-69 were 50.70 and 4.35 million. (See Table 1.3.5).

Table : 1.3.5

Percentage and number of persons below poverty line in Bangladesh

Year	%		Number in Millions	
	Rural	Urban	Rural	Urban
1964/64	88	82	49.89	3.24
1966/67	62	72	37.92	3.84
1968/69	79	70	50.70	4.35
1973/74	94	n.a.	63.96 ¹	n.a.

Source : Alamgir:1975:171

Some reports suggest that in Bangladesh the average family consists of 5.5 members and needs at least 2 acres of land for subsistence. (Bertocci:1972:36, footnote 3). Others point out that the average size of farm that produces an above poverty level income is over 5 acres. (Alamgir:April 1975:175). The number of people having no land, or having

1. Estimated figure based on preliminary release of 1974 census and adjusted for an assumed 6 per cent undercount.

a holding of under 5 acres, was estimated to be about 64 million in 1973-74. Thus for a large porportion of rural households the average landholding is inadequate to ensure them the minimum subsistence level of living.

According to the censuses of 1951 and 1961, the number of landless agricultural labourers increased by 63 per cent in ten years while the number of cultivators as a whole increased by 33 per cent. In 1951 landless labourers¹ were 14.25 per cent of all cultivators while in 1961 the percentage had risen to 17.52. In 1976 this figure may have risen to anywhere between 30 and 38 per cent² assuming that most of the landless are agricultural labourers. Almost half these landless labourers had secure employment. (Abdullah et al:April 1976:212-214).

An analysis of major agricultural subsectors (1975-76) shows crop production as the major area for jobs, offering 69 per cent of the total employment (Clay:1977:21). In this, rice dominates, providing around 80 per cent of agricultural employment (Ibid:21). However, since 1960 the average rate of growth in production of cereals has been less than 2 per cent per year whilst the rate of growth of agricultural production in value terms over the same period was only 1.25 per cent per annum (Alamgir and Berlage:1974:Table 3). Consequently there has been little increase during the past decade and a half in the aggregate demand for agricultural labour.

The income of the poorest section of the rural population seems to have remained at a more or less constant level over the last two and a half decades. According to estimates made by Bose (1968) and Alamgir (1974), the annual real

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1. 12 years old and over.
 2. This is based on the figures for landlessness. No comparable figures for landless agricultural labourers is available for later years.

wages of an agricultural labourer (at 1966 prices) of Tk.697 in 1949, were never equalled before 1961 (Tk.773), hit an all time high of Tk.852 in 1964, another high - Tk.834 - in 1969, and declined steadily from then on to Tk.580 in 1973.

The structure of poverty can best be seen by comparing the agricultural wage index to the cost of living index. Table 1.3.6 shows that the imbalance has become more marked in the past few years. The average money wage rate for agricultural workers per day was under Tk.3 in 1970 and shot up to over Tk.8.50 in 1975, implying an increase of 191 per cent. The cost of living index, on the other hand over the same period increased at a much higher rate - by 322 per cent, showing a fall in the real wage index of 44 per cent. The fall in the real wage rate of unskilled industrial workers was even sharper, their money wage rate increased by only 50 per cent over this period (from Tk.4.50 to Tk.7.07). (Hossain:op.cit.:15).

The short harvests of 1972-73, the shortage of imports and its effects on industrial production, the near doubling of import prices in two years from 1972-73 to 1974-75, and of course budgetary deficits, all combined to increase prices. The price of rice, which in 1967-71 had been Tk.1.2 per seer had by the end of 1974, as the effect of floods on the supply of rice made itself fully felt, shot up to Tk.7.8 per seer and did not come down, but continued to rise until the early part of 1975 when, following continued imports, better prospects for foodgrain production, and indeed the army takeover of power (as an immediate effect) food prices dropped. (Faahland and Parkinson:op.cit.:16).

Short term fluctuations in the cost of living in response to variations in the supply of rice are understandable.

Table 1.3.6

Agricultural Wages in Bangladesh

	Money wage Takas/day	Index of cost of living 1963-64=100	Index of real wages 1963=100
1960	1.95	94.9	87
1961	2.18	95.9	96
1962	2.25	102.0	90
1963	2.41	102.2	100
1964	2.65	99.7	113
1965	2.34	105.4	94
1966	2.40	126.1	81
1967	2.60	135.3	81
1968	2.75	134.6	86
1969	3.12	140.3	94
1970	2.98	132.8	95
1971	3.15	n.a.	n.a.
1972	3.93	246	68
1973	5.59	351.5	67
1974	8.04	565.2	60
1975(p)	8.72(p)	560(p)	66(p)

Source : E.J. Clay:1976: Table 1

Notes : p. Provisional,
n.a. Not Available

The demand for rice in a poor economy like Bangladesh is inelastic. When rice is in short supply, consumers divert most of their current income to purchasing it and this further shortens the supply. In this competitive situation many face difficulties not only over payment but also in obtaining the rice itself as surplus farmers and traders hoard it in the hope of bigger profit margins. As prices

soar and the competition for securing rice becomes keener, the poor peasant is forced out of his land either through direct sales or via the surplus farmer/money lender and the destitute landless labourer starves. Thus, increases in the price of rice relative to other commodities, fall unevenly in their impact and affect different classes of the population in different ways. Big farmers benefit most, small holders survive and the poor perish.

Having outlined the demographic characteristics, land and income distribution, and economic growth in the context of the level of poverty it is now possible to analyse some of the policies and programmes adopted in the past three decades by the various civil and military governments, ostensibly to help the poor and reduce inequality. In the following section I shall discuss the different 'Land Reform Measures', 'Pricing, Procurement and Exchanges Policy' and 'Food for Works Programme'.

Section IV

Policy Analysis

1. The Politics of Land Reform

Broadly, the logic of land reform as a policy measure operates as follows : firstly, if productivity can be raised successfully by means of land reform there will come about an increase in the volume of consumption and saving; secondly, agriculture being the dominant mode of production, increased productivity will have a strong impact on the economy as a whole; and lastly, the overall effect of the successful implementation of land reform measures will be a reduction in inequality in the agrarian sector.

Since the partition of India three attempts have been made to reform the land holding structure. First, in 1950 the British land revenue system of permanent settlement i.e. zamindari and other rent-receiving interests, were abolished with compensation and a weak attempt at ceiling legislation was made. The ceiling on total land holding was set at 100 bighas (33.3 acres) per family¹ and the acquired land was to be distributed among the landless and poor peasants. Second, in 1961 three years after Ayub Khan came to power in Pakistan the land holding ceiling was raised from 100 bighas to 373 bighas per family in an attempt to build support among the surplus farmers and the government emerged as a modernising agent through the supply of the seed-fertilizer-irrigation technology. The last attempt at reform was made following the liberation of Bangladesh in 1972 when the land ceiling was restored to the 1950

1. East Bengal State Acquisition and Tenancy Act, February, 1950.

limit of 100 bighas, family holdings up to 25 bighas (8.3 acres) were exempted from payment of land revenue, and arrears rents for those holdings of less than 25 bighas were commuted.¹

The impact of these attempts, however, was negligible. During the first attempt it took two and a half years before the legislation went through giving the Hindu zamindars enough time to convert their landed property into liquid capital and to smuggle it out to India. According to one estimate, between 1947 and 1971, the zamindars, marwaris and Hindu seths smuggled out to India on an average, annually about Tk. 60 crores (see Siddiqui:1978:47-49). Such a massive transfer of resources from the country greatly reduced the possible benefits of the zamindari abolition. As for redistribution, this indeed had taken place but it was not from the rich landowners to the poor ryots, but a distribution of income from a class of rural intermediaries to the urban middle-class based provincial government.

The ceiling legislation was hampered by a very ambiguous definition of 'family' and the result was the transfer of some 105,600 acres of agricultural land in an effort to evade the ceiling (Zaman:1975:102). The total amount of land finally available through acquisition was 163,741 acres, which was less than 1 per cent of the net cropped area of 19.2 million acres. Even if this land had been distributed among the 2.54 million landless labourers they would have received an average 0.06 acres per head (Abdullah: op.cit.:82). Given the fact that most of the surrendered land was of poor quality (Ibid), their share in the redistribution would have dropped even further.

1. Presidential Orders (P.O. 96 and 98 and Bangladesh Land Holding Order 1972).

In production terms the new measures did not give tenants any security with the result that the majority of the ryots were lacking in what is often stressed as a major pre-condition to investment in land improvement. In a sense, the tenants now had less security. In cases of default, for example, the new recovery provisions made it possible for the interested parties to bribe the government collector and his subordinate staff in order to get sales for default held without the tenants knowing anything about it until the period of appeal was over.¹

The proximate effect of the Act of 1950, therefore, was an enhancement of Government land revenue. Thus, the Government of East Pakistan 'actuated partly by the need to increase land revenue and partly by political consideration' eliminated the mainly Hindu established landed families of Bengal exactly in the same way Lord Cornwallis did in 1793.² But it did not benefit the rural poor. It 'benefited an intermediate class which failed to perform any dynamic productive mission ... The newly emerged (primarily Muslim) surplus farmers merely slipped into the power vacuum left by the departing Hindu landlord quietly and took up the money lending function of the Hindu banya.' (Abdullah:1976:91-92, 89).

As regards Ayub Khan's legislation to raise the land holding ceiling, this was clearly a reform in favour of the better off farmers in order to strengthen his support base in the rural areas and directly contributed to increased polarisation during his so called 'decade of development' (Siddiqui:1978:53-56). The legislation was carried through at a time when the bottom 42.1 per cent of all rural

1. Government of East Pakistan, Board of Revenue; Report of the Committee for Streamlining the Procedure for Payment of Land Revenue in East Pakistan, Dacca, 1970; p.12.

households, having less than 0.75 acres owned 2.3 per cent of the cultivated area, and the bottom 62.2 per cent of households, having less than 2 acres, controlled only 9.5 per cent of the cultivated area (Sobhan:1969:5-6). Thus the amendment of the Act of 1950 by Ayub directly contributed to increased polarisation of the rural society between those who had little or no land and those having relatively large farms.

In the post liberation reform, on the other hand, the exemption from payment of land revenue and commutation of the arrears rents for holders of up to 25 bighas benefited the upper strata of the peasantry much more than the poor peasants, since by our calculation (Table 1.3.1) the bottom 67 per cent of the peasantry are poor peasants holding under 2.5 acres as against 29 per cent of the peasantry who hold between 2.5 and 7.5 acres. On the other hand, by exempting almost 96 per cent of rural households from payment of land revenue, the Government was deprived of substantial income. As for the various forms of rates and cesses which were brought under an all-embracing 'land development tax', this constituted only 30 per cent of the actual land revenue and thus the cost of collection became higher than the total receipts (Siddiqui:1978:105-106).

In 1977 the USAID Report stated that;

The evidence of field surveys, together with experience gathered during the 1977 Land Occupancy Survey confirms that there are large numbers of owners of land, whose holdings exceed the legal limit. There is difficulty in establishing a national estimate of the numbers of owners of land whose holdings exceed this ceiling. Few large land holders will admit to having holdings that are larger than the maximum set by law. This holds especially when such landholders are interviewed by representatives of Government ... However, the authors are satisfied ... that the current ceiling on the size of holdings is not strictly enforced and that many thousands of acres of land are retained illegally by owners. Though attempts have been made by individual

owners to suppress the fact that they hold land above the ceiling, local villagers, revenue officials and others have helped to confirm the existence of such holdings (Jannuzi and Peach:1977:76).

It was originally estimated that 1.2 million acres of land would be available to the Government from the imposition of the ceiling (Bangladesh Observer, May 25, 1972). However, subsequently this was reduced to 800,000 acres of surplus land and the excess land that was finally obtained was only 58,409 acres, from 5,371 families. Of this, as of January 1976, only 31,250 acres were taken 'possession of' officially by the Tehsildar on behalf of the Government (Siddiqui:op.cit.:110).

Thus all attempts to reform the land holding structure ostensibly in order to build an egalitarian society, were frustrated by the class character of the ruling elite and the interests of the lumpen class they served. At any rate, in a country where farms are small and getting smaller, even if it were possible to achieve complete equalization through redistribution of land, it would not solve the agrarian problem. As a result of demographic forces, inequalities would reappear and area per family would continue to decline. Ultimately, agriculture will have to develop capitalistically and employment within and outside agriculture will have to grow faster than total population.

2. Pricing, Procurement and Exchange Policy

The terms of exchange of agricultural products in Bangladesh are influenced by the prevailing prices of the two main crops - paddy and jute. The growers' share in the consumer price is dependent upon such factors as; accessibility between producing and consuming areas, conditions for

transportation, existing channels of marketing, number of intermediaries, processing and, above all, demand. Both in order to maintain a production incentive and as well as a means to achieve a reasonable degree of price stability throughout the country, Government policy has been to fix producer prices for these two principal crops. This in turn has affected agricultural prices, production, allocation of resources and distribution of income.

A policy of a combination of import substituting industrialisation under a protective tariff barrier and export taxes on major items such as jute, was adopted until the late fifties for generating capital for industry and to centralise foreign exchange earned through agriculture for payment of the necessary imports. This adversely affected the terms of trade for agricultural commodities vis a vis the manufacturing sector and depressed domestic prices for raw materials.¹ The unfavourable price movement for jute in fact continued until well after liberation in 1971 with a break in the mid-sixties when export duties were reduced (Falcon and Gotsch:op.cit.:53-55). All this resulted in a reduction in jute acreage. To help reverse the trend and also to protect the growers from exploitation by middlemen, the Government set a minimum price for growers but this has never been seriously enforced (see Alamgir:1975: 287-288).

Unlike jute, foodgrain prices were stabilised throughout the fifties and early sixties through a system of internal procurement, imports and distribution by rationing. Although the size of the procurement was less than 3 per cent of total production, it had a depressing effect on market prices and production.² Internal procurement was

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1. For intersectoral terms of trade see Lewis and Hossain 1967 and 1970.
 2. Government of Bangladesh, Ministry of Agriculture, Bangladesh Agriculture in Statistics, November 1973.

in fact practically given up in the sixties, but was reintroduced by the Bangladesh Government in 1973 (Ibid:288).

The stated objective of Government grain procurement is to keep the price to the farmer at an incentive level to accelerate the pace of agricultural development on the one hand, and on the other, to secure as much of the domestic grain as possible for the Government rationing system.¹ However, so far, Government strategy has been geared mainly towards building a reserve stock, which in addition to grain imports is to be used for ration distribution and in an emergency (distress distribution or market stabilisation).

Government procurement stocks and grain imports amount to about 2 million tons per year and so far have been used to supply the ration system which feeds the politically volatile urban population in five major cities at a 50 per cent subsidy.² Of the annual offtake through the ration system, only 10 percent reaches the poor and more than one-third is allocated to priority groups such as the civil service, the military and the police. The portion distributed through the rural modified ration centres is supposed to be given to those earning Tk.100 per month or less. In practice, however, the Government has virtually no distribution system for the rural poor (FAO/UNDP Working Paper II : 21-22).

The internal pricing, procurement and distribution policies were combined with various exchange rates and import-export regulations which created a situation in which the implicit exchange rate for a unit of agricultural commodity was considerably lower than that for a unit of manufactured

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1. FAO/UNDP Working Paper X : 25 (no source has been given).
 2. The remainder of the domestic marketable surplus, also about 2 million tons circulates mostly in the rural areas via private traders.

commodity. At international prices, the agricultural sector was losing about 33 per cent in its exchange with the manufacturing sector due to distortion in domestic prices. The combined effect resulted in a transfer of income from agriculture to manufacturing which was inequitable in that it implied a transfer of resources from the rural poor to the urban rich (Islam:1971:14-19; Alamgir: 1975:289-290).

3. Food for Work and Relief

This programme was institutionalised after being initiated in the winter of 1975-75, following a largely man-made famine (Rafferty:Financial Times:1974, Jan 6) in which the poor suffered a reduction in purchasing power at a time of uncontrolled inflation. At this time it was felt necessary to supplement the existing strategy with a consumption oriented programme so that malnutrition could be reduced. Later it was argued that, while the short term generation of new employment in the agricultural and industrial sectors would not expand fast enough to absorb completely the present manpower supply, relief in the form of Food for Work appeared to be the best alternative for utilising available manpower in constructive activities. (FAO/UNDP:WP X:33).

In Food for Work programmes payment for labour is made in wheat, which is received as aid from the US grain surplus. Most of the projects however, are carried out in the winter months when the main rice crop - aman, and the bulk of the marketable surplus, is marketed and the prices are low. Most of the buyers at this stage are the landless labourers and the intermediate traders. As a result the programme considerably reduces the demand from the landless/poor peasants in the grain market and consequently depresses

market prices for the producer. It also depresses market prices for wheat growers and frustrates the Government's incentives to growers of wheat.¹

In 1976-77, under the programme, labourers were paid 6 lbs. of wheat per 70 cu.ft. of earth work. The market price for the same amount of wheat was Tk.4.50 whereas the average market wage rate for the same period of labour was Tk. 8 (Field Work:1976-77). Thus labourers were being paid at unfair rates.

Finally, the purpose of the programme is to increase food production by digging irrigation canals and fish tanks or building embankments as protection against floods and/or saline water or roads to facilitate transportation and market penetration. Given the fact that the highly subsidized Government irrigation projects² are controlled by the large landowners (see Ahmed:1972; also Mannan:1972) and in the absence of any machinery to establish in advance who is most likely to benefit from a proposed capital work under a given project, the better-off are more likely to benefit from Food for Works programmes.

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1. 3 million out of the 22.5 million acres of arable land are suitable for wheat cultivation and need only 1/3 or 1/4 the water needed for rice production.
 2. The Government programme for input subsidization as a part of an increased production strategy has been discussed by Alamgir:1974, 1975, 1975a; Jahangir:1977; Hossain:1977; also see FAO/UNDP Working Papers, I, II, X, and XI.

Conclusion

So how do we define Bangladesh agriculture ? Is it capitalist, feudal, peasant or in a transitional mode ? If an adequate definition of the agrarian class structure is to be achieved a critical analysis of the forces and relations of production is essential. However, it is the purpose of this thesis to relate such an understanding to the ecological environment in which agriculture is set. Such a critical analysis must wait, therefore, until the environmental character of the district under study, has been explored. Khulna, where all the three villages under study are situated, is the southern most district of Bangladesh. In the next chapter I shall discuss the varied physical characteristics of the district and trace how these may have affected settlement patterns, especially in the south.

CHAPTER 2

INTRODUCING A SOUTHERN DISTRICT : AN HISTORICAL PERSPECTIVE

This part of the chapter has been divided into three parts: (i) general physical features of the district; (ii) settlement pattern in the Sundarbans, and (iii) class structure during the period of early settlement. In the first section I have dealt with the ecological background and its effect on early settlement particularly in the south of the district, and general physical characteristics such as climate, soil and salinity. In the second section a brief history of early settlement in the Sundarbans has been given to help analyse some of the key questions that need to be answered before we can formulate our hypothesis. The second part is perhaps more important in that it will help establish the basis for some of our empirical data and indeed some of our assumptions. The physical part, however, is useful in understanding the general physical background of the population we are dealing with and I find the historical material in this context (Rennel's account) particularly interesting in that it establishes a positive correspondence between salinity (availability of drinking water) and settlement.

In order to establish some sort of a relationship between ecology and the differentiated structure of the peasantry in our villages (which will be dealt with in depth in Chapter 5) we need to see whether the original settlement was unequal or whether inequality accelerated over the years. Once this has been established, we can make a further enquiry into the question of differentiation and try and see how its structure may have been affected by

ecology. For this purpose, the principal classes and the intermediary interests will have to be identified and also the extent to which jungle clearance itself, and for example, accessibility and cheap means of transport to market were responsible for the way class structure evolved, will have to be analysed. Before we do this however, the question of differentiation will have to be understood clearly and this calls for two further crucial questions: (a) by what classes, through what process and in what forms was the agricultural surplus being appropriated from the direct producers; and (b) were the peasantry themselves a relatively homogenous exploited mass, or were they already becoming differentiated into strata with differential access to the means of production ?

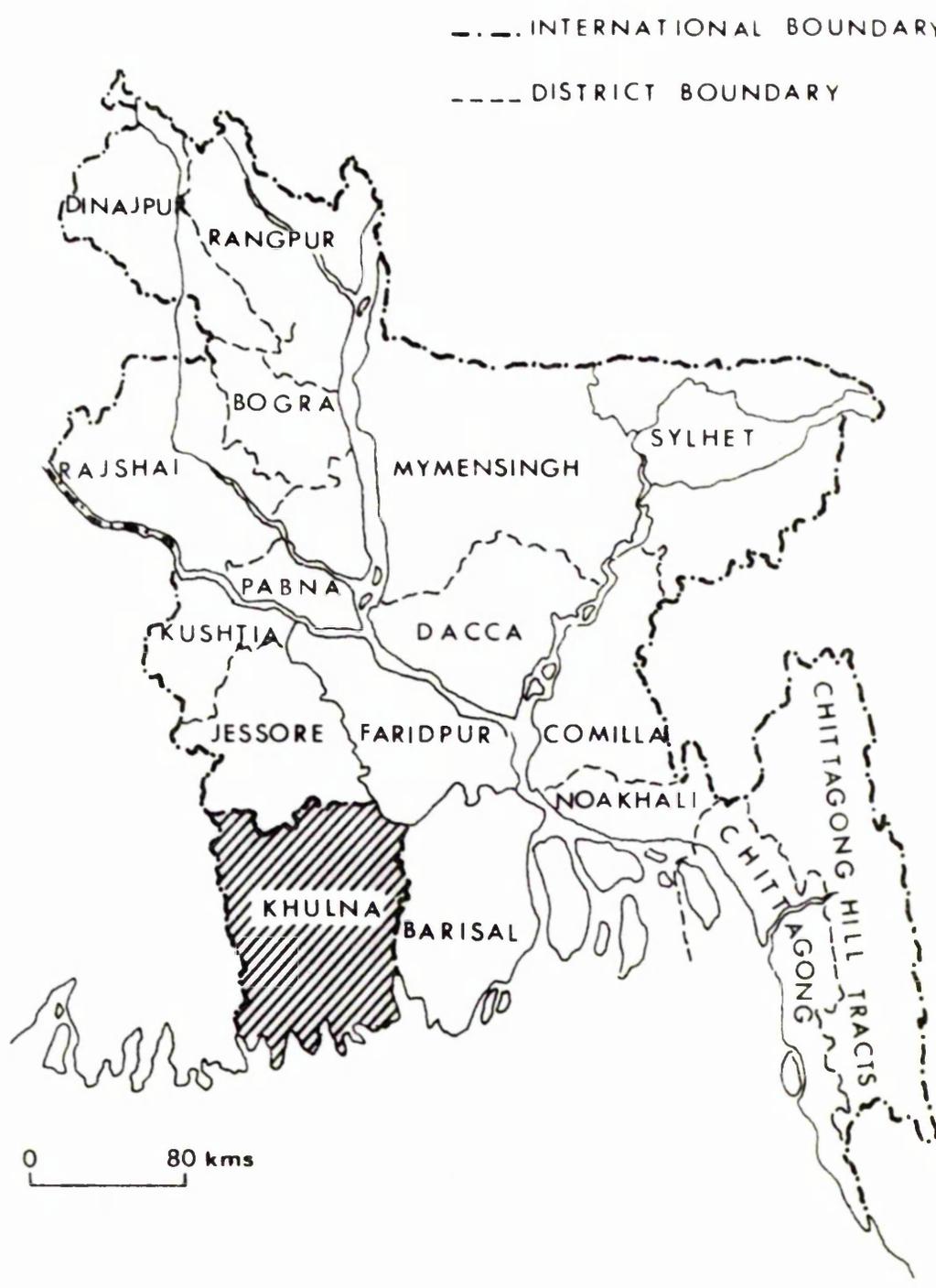
I have tried to answer these questions in Section III, and bearing our principal questions in mind I have concentrated, naturally, on those aspects of history which bring out the critical issues involved.

Section I

General Physical Features of the District

Khulna is the southern-most district in the Bengal Basin, extending over an area of 4,630 square miles and bounded on the north by the district of Jessore, on the east by Barisal (Bakerganj) and Faridpur, on the west by the district of 24-Parganas in India and on the south by the Bay of Bengal (Map 2.1.1).

Taken as a whole, Khulna is a low-lying, flat, deltaic area occupying the central portion of the southern delta between the Hooghly and the Meghna estuary and interlaced by an intricate river and tidal channel system which cuts the land into numerous separate areas. These channels carry flood water from the Ganges, Brahmaputra, Meghna and other rivers and also act as conveyance channels for rainfall and tide water to the Bay of Bengal. The physical features of Khulna are much the same as those of other deltaic districts. The land is exceptionally flat and includes numerous low-lying areas called beels. Land masses are generally at elevations slightly above sea level but are subject to inundation at the higher levels of the tidal cycle. Ground levels vary from below, to 20 feet or more above sea level. The usual maximum level however, seldom exceeds 10 feet. The villages cluster along the banks of the rivers. The southern portion of the district exhibits the delta in a less advanced state of growth, covered in swamps and ending towards the coast in a network of sluggish channels and backwaters. Further to the south lie the Sundarbans, separating the district from the Bay of Bengal by mangrove swamp forests which form a protective belt, from 25 to 40 miles wide, along the southerly part of the district.



**Map 2.1.1 ADMINISTRATIVE DISTRICTS OF BANGLADESH:
 Location of Khulna.**



- Plate 1. River transport; Dacca - Khulna - 22 hrs.



- Plate 2. Road transport; Dacca - Khulna - 9 hrs.

Remnants of swamps and forests appear in the form of peat layers and excavations of wood, trees or other vegetation at depths of up to 100 feet below ground surface provide evidence of large scale subsidence caused by compaction of recent sediments and possibly by structural downwarping.

1. Ecological Background to Early Settlement

When this part of Bengal was surveyed by Major Rennell between 1764 and 1772 the banks of two of the oldest rivers, the Kabadak and the Bhairab, appear to have been the only habitable tracts above the general level of the swamps west of the Baleswar. That the latter have recently been raised by natural action, admits of no doubt, for during the time which has since elapsed, the banks of numerous other streams and creeks intersecting the swamps and connected with the principal distributaries of the Ganges have been gradually raised with the assistance of human industry above the general level of the marshes and are now bordered by villages and hamlets. (O'Malley:1908:3)

By comparing Rennel's map with that made nearly a century later in the course of the revenue survey of the area during 1858-64, O'Malley points out that cultivation and villages existed where a century ago all was waste. He writes,

At the same time, ancient ruins discovered from time to time in making new settlements seem to show that portions of the district which are now being reclaimed were formerly inhabited. (Ibid:4)

O'Malley discounts the various theories, such as the inroads of pirates, the devastation caused by cyclones and the inrush of irresistible storm waves, put forward to account for the extinction of the villages and the abandonment of the land, and apparently seems to agree with a more direct ecological explanation of this phenomenon given by Dr Thomas Oldham.

Oldham suggests that the whole of the south, including the Sundarbans proper, is only the delta caused by the deposition of the debris carried down by the rivers Ganges and Brahmaputra and their tributaries. It is well known that in such flats the streams are constantly changing, eroding one bank and depositing on the other, until the channel in which they formerly flowed becomes choked up and the water is compelled to seek another course. It is also certain that in the Bengal delta the general course of the main waters of the Ganges has gradually tracked from the west towards the east until 'of late years' the larger body of the waters of the body of the Ganges united with those of the Brahmaputra and together proceeded to the sea as the Meghna. Every stream, whether large or small, flowing through such a flat tends to raise its own bed or channel by deposition of silt and sand and by this gradual deposition the channel bed of the streams is raised above the actual level of the adjoining flats.

With these principles in mind, Oldham analyses the results arising from the original flow of the main body of the Ganges which went along the general course indicated by the Bhagirathi and the Hooghly, and its changes as affecting the existence and distribution of population. Oldham writes as follows

The very first necessity for the existence of man is the presence of drinkable sweet water. Where this cannot be procured it is certain that man can make no settlement and it is equally certain that the removal or destruction of the sources of supply of this necessary element of existence will compell him to abandon his abode and change his habitation. We have not to go beyond the delta of the Ganges itself to see the application of these facts in explanation of the former history of the

Sundarbans. The more modern courses of the large rivers give us a patent illustration of the successive condition of all. To the east where now the great body of these rivers is discharged, we find the force of the fresh water sufficient to overcome the strength of the tide and the influx of salt water from the sea. And down to the very mouths of the rivers here fresh water (often for hours in the day flowing over a basis of salt water beneath) can readily be procured. The consequence is that towns and villages line the banks of every stream and population and cultivation follow the course of this, the prime element of their existence. To the east, the filling of the delta has not yet reached the same level as to the west and the fresh waters here retain sufficient power, therefore, to be carried down to the sea. In earlier times precisely similar conditions must have existed further to the west; the larger portion of the river waters found their exit through the channels there, and were thus in sufficient force to be carried down to the very sea; and the natural consequence of this was that man fixed his abode where he could procure fresh water, towns and cities arose, and taking advantage of the great facilities of trade offered by their position increased in importance and number until the necessary changes in the course of the stream which supplied them deprived them of the possibility of existence. That this is the natural interpretation of the facts, appears to me abundantly evidenced by the circumstance that within this abandoned tract and in its vicinity, at the present day when the swarming population is seeking utility for settlement in every direction, not a single spot finds its settler save where fresh water is to be had; and the traveller may go for days or weeks through the countless astonishing creeks and channels of the tidal Sundarban without finding a single abode, whereas the moment he reaches any spot where fresh water is obtainable he finds cultivation spreading and the population increasing. (Oldham 1870 : 49-50)

O'Malley seems to agree with Oldham's theory that availability of fresh water is a condition for human settlement and in support of his belief he cites Gastrell's account of the growth and decline of the village of Kabadak. Colonel Gastrell argues that once upon a time, Kabadak was connected directly with the Ganges and naturally its water was fresh instead of brackish, and there would have been every prospect of its banks being still further raised and consolidated. This is where the original Gobra flourished with its 'masonry buildings and courtyards'. But long before Rennell's days, other streams had interfered with and cut off the Kobadak from the Ganges and left it to be reduced into a mere tidal creek with a headway of fresh water. Fresh deposits on its banks had then ceased to a great extent; the rains gradually washed away the upper stratum of soil and lowered the general level; soil gradually became more and more impregnated with salt and was unfit for crops and the population moved out. '... were it not for the embankments and the fresh water that drains into and passes down the Kobadak in the rains helping to wash out the salt of the soil near the banks, Gobra would soon be deserted ...'¹

1. Quoted in O'Malley:1908:7

2. Agro-Ecological Regions

O'Malley divided the district into four parts : (i) the high lands to the north west lying along the banks of the rivers; (ii) the north eastern low lands situated in the interior away from the banks of these rivers; (iii) the central and southern region adjoining the Sundarbans; and (iv) the unreclaimed Sundarbans (O'Malley:1908:90).

In the north western portion the land is well raised and is ordinarily above flood level and contains old settled villages and gardens. Its population is fairly dense and the surface is diversified by groves of date palms and coconut trees and plantations of mango and other trees on the outskirts of the villages; indeed nearly every village is surrounded by a fringe of orchards.

In the north eastern part, from the boundary line between Jessore and Khulna down to the latitude of Bagerhat, the land is low and contains extensive areas of beel lands, large flat tracts on which hardly a tree can be seen. These lands are mainly cultivated with rice and are also suitable for jute and oil-seeds. Beels connected with the rivers by means of efficient channels contain the best land for many varieties of coarse paddy and jute for the creeks bring down rich river silt and also drain away the water. The rivers Madhumati, Atharbanki, Betbunia, Taleswar, and Tanguchi with their tributaries, traverse this part of the country. From December to the end of June the river water almost invariably remains brackish, but after the rains have set in, the salt water is usually driven back from the limits of cultivation by the volume of fresh rain water and drainage coming down. Population here is sparse.

The central tract is intersected by innumerable rivers and khals which remain saline for a great part of the river. Many of the khals used to be dammed up during the summer months to prevent the salt water getting into the fields and as a result, at the time of flood tide, sea water which used to inundate the area extended further up the river.¹

Further to the south is the unreclaimed Sundarbans tract, a region of morasses and swampy islands, most of which are covered with a dense evergreen forest, while some areas are covered in salt water at tide level.

(a) Climate

The district is within the tropical zone, being located between latitudes $21^{\circ} 38'$ and $23^{\circ} 1'$.

There are distinct seasonal weather patterns which are governed by the monsoons. These may be categorised as follows :

- (i) The dry season from November to April : Rainfall is infrequent under the influence of dry air carried in from the north west. Temperatures in the seventies during the day and in the fifties at night are common from December to February. Temperatures may rise above 100°F in April. Humidity gradually decreases during this season, reaching a minimum of 60 to 70 per cent in March and April. Skies are generally clear.
- (ii) The wet season from June to September : This season is characterised by heavy rainfall under the influence of the south east monsoon with

1. This area has now been brought under the embankment programme and work has been completed.

75 per cent of the annual total occurring in this period. Storms are usually of several days' duration and rainfall is steady at moderate rates. Mean temperatures are in the low eighties and humidity averages about 85 per cent. Skies are normally overcast.

- (iii) The transition periods during May and October : The months of May and October are characterized by violent, short duration thunderstorms¹ over the land masses and severe cyclonic storms generated in the Bay of Bengal. Nearly 75 per cent of the latter type storms that strike the district occur during these two months. Almost all of the remainder occur in the immediately preceding or following months.

Mean annual rainfall is approximately 67 inches in the northwest part of the district, the heaviest occurring in June with about 29 inches and practically no rainfall from December through to February.²

(b) Rivers and Salinity

A few major rivers connected by numerous cross channels and known by a multiplicity of names in different parts of their courses, gradually find their way through the district to the sea. In the extreme west is the Ichamati flowing from north to south and forming the border with India. Further to the east run the Kabadak (Kapatakkhaya), the Bhadra, the Bhairab and

1. Thunderstorms in May are known as kalboyishakhi.

2. Khulna Meteorologic and Chalna rainfall stations; station numbers 503 and 510 respectively; data collected during field work in 1977.

the Atai and their continuations traverse the centre of the district, while the eastern boundary with the district of Barisal is formed by the Madhumati which, further south, is called the Baleswar. In the south there is a labyrinth of rivers for example; the Jamuna, Arpangsia, Sibsa and the Pasur which, deep in the south gush into the Malancha, Marjata, and the Haringhata, each of which is large enough to be called 'an arm of the sea'.

A Coastal Embankment Project comprising a complex system of dikes and drainage sluices for flood protection in the coastal areas, was undertaken by the Government in 1961 and work under the first phase was completed in 1972. The objective was to protect the areas from tidal salinity so that production could be increased significantly through higher yields and multi-cropping.

Saline water from the Bay of Bengal is transported throughout most of the district by tidal flows. In the western part of the district only the Kabadak river appears to be influenced by the Ganges river flow. Salinity in the Morirchap, Betra and Bhadra rivers appears to be influenced almost entirely by local rainfall and runoff. In the areas where drainage channels receive only local runoff, salinity moves far inland during the months of low rainfall, whereas salinity in the Kabadak river remains nearer the sea.

The eastern portion of the Khulna district between the Pasur and Madhumati (Baleswar) rivers is influenced mainly by flow from the Ganges. The Gorai river carries fresh water spills from the Ganges into the area and

during many months of the year effectively repels salinity incursions. There is a low pocket near Bagerhat which is not directly connected to a fresh water source. It becomes saline during the low flow period and remains so during June, July and August even though adjacent areas have become fresh. (Project : 74; Plate 17).¹

Embankments have been built for generations by farmers or landowners to control tidal and rainfall flooding. Local low embankments are most common in areas with highly saline waters. In these areas the smaller khals are closed by dikes each year to keep tide water off the land during the dry season when the water reaches peak salinity. The low embankments are generally constructed and left in place throughout the year in perennially saline areas, such as the western part, where rainfall is the main if not the only water source for agricultural use. In the eastern part where the upstream flows bring in sweet water, the farmers make openings in the low embankments to let in the tidal waters. These waters move under tidal influence into and out of the khals and inundate the low, medium, and, during the extreme tides, even the high lands. These local embankments are not generally substantially built or maintained and are frequently overtopped or breached.

High tides flood into and out of the drainage channels in the western portion of the district which is out of the WAPDA Embankment, and during the rainy season the majority of the land is completely flooded. In

1. EPWAPDA : Coastal Embankment Project, Engineering and Economic Evaluation Vol.1 : 74; Vol.II : Plate 17

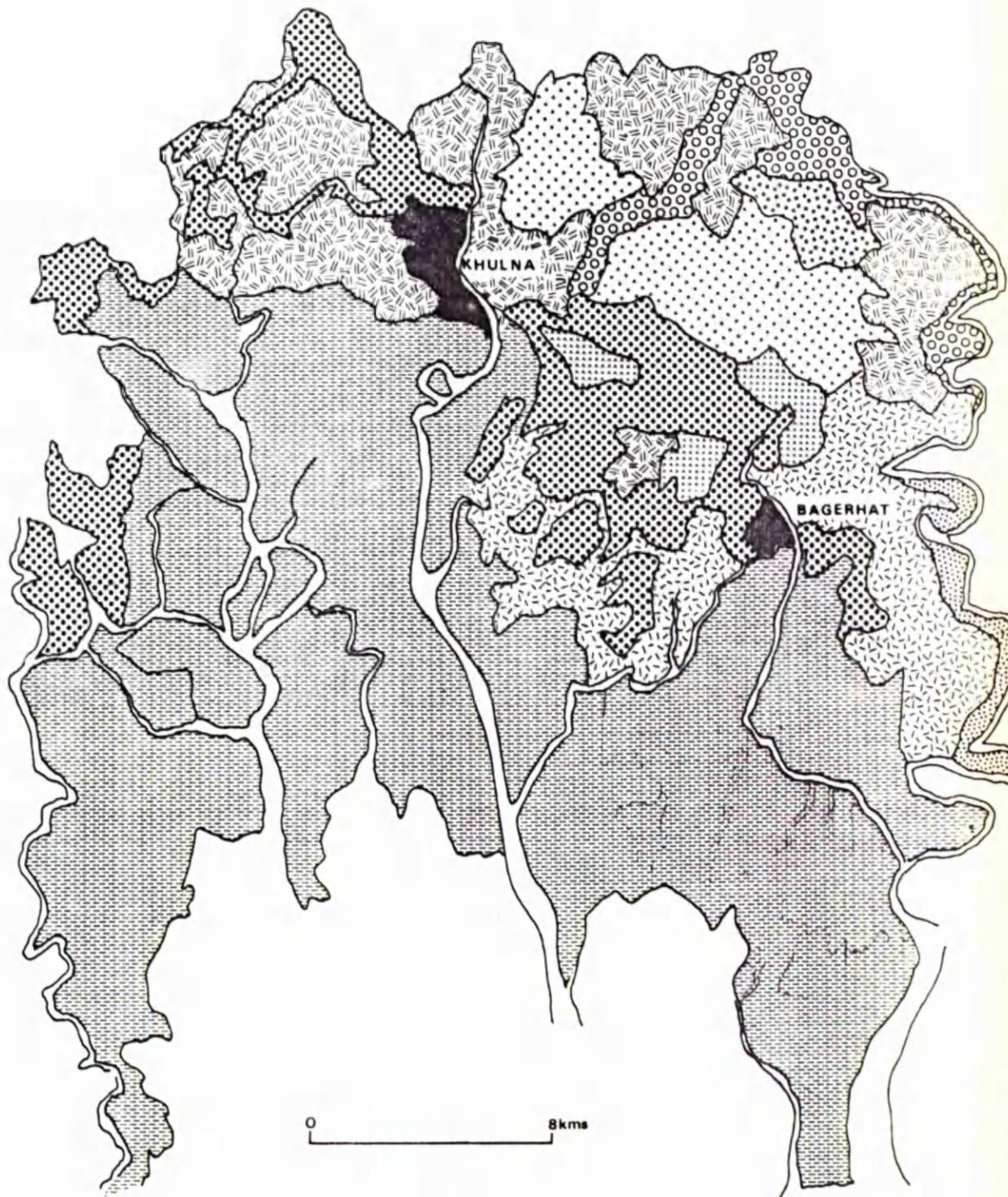
areas where the water is usually too saline for crop growth, very little production is realized from the land.

In the area south of Khulna, the salinity concentration varies throughout the year from fresh to very saline. Here crops grow only when fresh water is available, i.e. during the monsoon, and consequently these are mono-cropped areas usually producing transplanted Aman (Map 2.1.2). In the protected areas, on the other hand, embankments prevent inundation during the saline period as well as deposition of salts on the land. This has generally helped increase yields and make possible the production of additional crops.

People in the coastal area have learned to live in their saline environment by constructing tanks in which rain water is stored for domestic purposes. Such fresh water is often the only source for human and animal needs in the perennially saline areas. In other areas fresh water from the rivers and khals is used during the high runoff period of the year. The absence of an adequate and reliable supply of fresh water creates hardships for residents of the saline areas.

(c) Soils

Most of the soils in the district are recent alluvium, mineral in character, that have been deposited by the river drainage system and the tides. Silty clay loam is the predominant agricultural textural classification. There are localized areas of organic peat muck soils



Mainly aus/til/jute - rabi crops and aus - transplanted asan - fallow with some coconut and betelnut gardens



Mainly mixed aus/til and broadcast asan - fallow/rabi crops with some aus/til/jute - transplanted asan - fallow/rabi crops and aus/jute/til - rabi crops



Mainly aus/til and broadcast asan - fallow/rabi crops with some aus/til/jute - transplanted asan - fallow/rabi crops and aus/jute/til - rabi crops



Mainly aus/jute - transplanted asan - fallow/rabi crops with some transplanted asan - fallow/rabi crops and mixed aus and broadcast asan - fallow



Mainly aus/til - transplanted asan - fallow/rabi crops and mixed aus/til and broadcast asan - fallow/rabi crops with some broadcast asan - fallow



Mainly transplanted asan - fallow with some aus/til - transplanted asan - fallow



Mainly broadcast asan - fallow with some mixed aus and broadcast asan - fallow



Mainly transplanted asan/broadcast asan - fallow with some aus/til - transplanted asan - fallow and mixed aus and broadcast asan - fallow



Transplanted asan - fallow

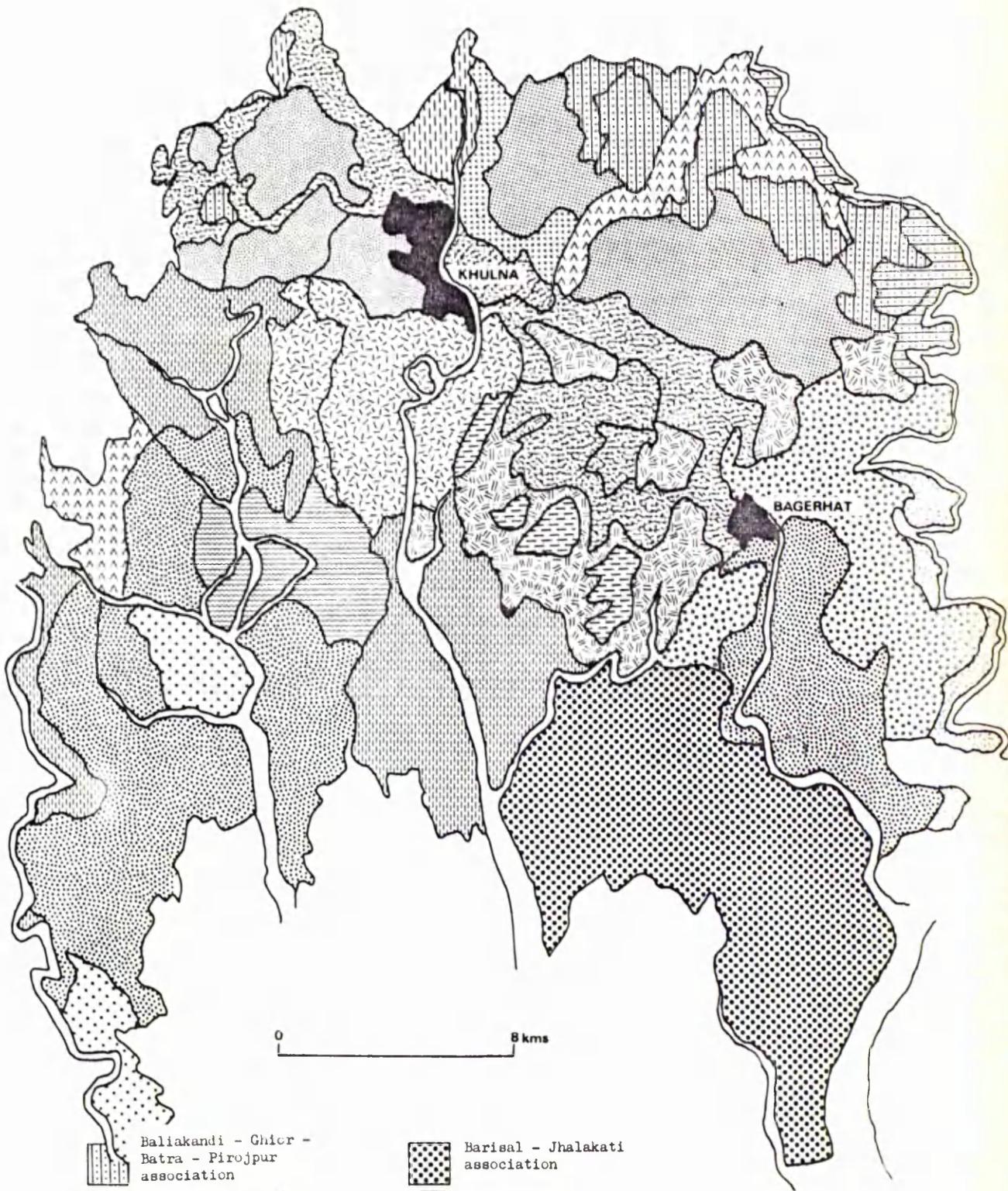
Map 2.1.2. CROPPING PATTERN IN KHULNA DISTRICT: Sadar and Bagerhat Subdivi

and acid sulphate soils in western Khulna. The majority of soils are fertile and respond well to nitrogen, phosphorus and potassium chemical fertilizers and also to manure. The soils are young, and most contain calcium carbonate or considerable exchangeable calcium. However, some soil deposits in western Khulna are low in available calcium. Soil salinity in the southern area varies from non-saline to strongly saline as a result of the degree of normal tidal inundations and tidal surges associated with storms. (F.A.O. 1971); Map 2.1.3.

Soil formation has taken place from sediments of the river Ganges and to a lesser extent from contributions from the Tista and Brahmaputra rivers. Soils of the south western Khulna district have a low lime content and are more susceptible to soil structure difficulties and to acid sulphate problems.

Limited areas of peat and muck soils occur mostly west of the Pasur river and in the beel areas in eastern Khulna. These soils are derived from the mangrove species of shrubs and trees in the Sundarbans that adapt to growing in the saline and brackish water of the coastal area and from swamp vegetation in the beels.

During the dry season from November through March, evapo-transpiration dries the soil surface layers and sub-soil moisture moves by capillary forces to the surface. By this means considerable salt from the sub-soil is carried to the surface and visible salt crusts appear. The salt content of the surface soil layers is reduced during the rainy season by surface runoff and deep percolation. In soils of



-  Baliakandi - Ghior -
Batra - Pirojpur
association
-  Highland and medium
highland phase
-  Kamalkathi - Barisal
- Pirojpur association
-  Dumuria - Bajoa
association
-  Saline phase
-  Barisal - Pirojpur
association
-  Rayna - Dacope
association

-  Barisal - Jhalakati
association
-  Harta - Satla
association
-  Non-saline phase
-  Barisal - Pirojpur
- Bajoa association
-  Bajoa - Ramgati
association
-  Sara - Ishurdi -
Pakuria - Baliakandi
association
-  Pirojpur - Ishurdi -
Ghior association

-  Satla - Harta
association
-  Mirpur - Darsana -
Garuri association
-  Darsana - Barisal
association

Map 2.1.3 SOIL ASSOCIATIONS IN KHULNA DISTRICT: Sadar and Bagerhat Subdivisio

high clay content, percolation is slow and surface runoff accounts for the majority of the salt removal. However, the small differences in elevation between the land surface and the water table surface ranging from four to eight feet during the dry season and approaching zero in the rainy season, tend to restrict the amount of percolation. (Brammer 1976)

Land alteration due to sedimentation and erosion is relatively minor in Khulna. Only a small amount of upland river flow passes through this district particularly in its central and western portions, and flow conditions are primarily determined by local runoff.

Section II

A History of Early Settlement in the Sundarbans

There has never been a peasant society in which at any point in time there were not rich peasants and poor peasants. However, depending on the dominant mode of production, feudal, colonial or capitalist for example, this differentiation will have different origins and different structural effects. I shall analyse this in the context of the history of peasant settlement in the Sundarbans area. But before I do this, we need a more elaborate description of the Sundarbans during the time of reclamation and gradual settlement.

Briefly, the Sundarbans may be described as a low flat alluvial plain covered with forests and swamps in which land was reclaimed for cultivation. The tract is intersected from north to south by wide tidal rivers and estuaries and from west to east by narrow tidal rivers and creeks. All the estuaries and most of the rivers are saline and are inter-connected by an intricate series of branches and these in their turn by innumerable channels, so that the whole tract is a tangled network of estuaries, rivers and watercourses. Along the sea face, the forest is almost exclusively composed of mangroves which sometimes extend into tidal water, but elsewhere are separated from the sea by a line of low sand hills or dunes.

Cultivation was confined to the north where reclamation had been effected with considerable difficulty. For cultivation the land had to be embanked by cutting through the forest and throwing embankments along the banks of

the streams. Strong dams were constructed across the mouths of the smaller streams to keep the salt water out. After this, the forest had to be cleared, tanks dug and huts constructed. Tigers, crocodiles and malaria were serious hazards.

The general aspect of the Sundarbans gradually changes as one travels west to east from the Hooghly towards the Meghna and the whole tract may be divided into three distinct parts: (1) from the Hooghly to the Jamuna and Kalindi rivers, included in the 24-Parganas, (2) the tract between the Jamuna and Baleswar lying in Khulna and (3) the area between the Baleswar or Haringhata and the Meghna in the district of Bakerganj. The belt of cultivated land from the Hooghly to the Jamuna in the 24-Parganas is surrounded by large embankments to keep out the saline water; the land is comparatively high and dotted with small hamlets or single huts surrounded by little gardens. In the marshy tracts of the Khulna Sundarbans, between the Jamuna and the Baleswar, miles of low-lying, half-cleared land extends without a vestige of habitation. The cultivators who tilled this section rarely lived on or near their fields. The Bakerganj Sundarbans on the other hand, offered a pleasant change from the depressing swampy atmosphere of the Khulna Sundarbans. The land being high and the river water comparatively sweet, no embankments were necessary to protect the crops.

Land Revenue and the Process of Settlement

The Diwani of Bengal which included the administration of the collection of revenue, was made over to the East India Co. in 1765 but it was not until 1772 that a Board of Revenue was appointed in Calcutta. Settlements for the zamindars in Bengal were adjusted from year to year following the Five Year Settlement in 1772 until 1790 when the Decennial Settlement was formed which was declared permanent in 1793. The zamindaris that bordered on the Sundarban forest had no fixed boundaries on that side and cultivation advanced and receded according to the general circumstances of the country and the capabilities of the landowners. The forest was the property of the State and was not included in the Permanent Settlement.

Mr Tilman Henckell was the first Judge and Magistrate of Murli (present Jessore). In 1784 he obtained permission from the Board of Revenue for a scheme to grant leases of the forest land to a body of independent peasant proprietors directly under the Government. The principal objective of the scheme was fourfold: (i) to gain revenue from land which lay unproductive; (ii) to obtain a reserve of rice against seasons of famine, the crops in the Sundarbans being practically immune from drought; (iii) to drive out the bandits through cultivation and settlement; and (iv) to facilitate the manufacture of salt (Pargiter: 1885; O'Malley: 1908: p.40) Mr Henckell after roughly defining the boundaries of the Sundarbans forest, granted approximately 150 leases during 1785. The implementation of his scheme however, was

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1. This section is based on the works of Ascoli: 1921; O'Malley: 1908; Pargiter; 1885; and Westland: 1874 all of which are concerned with the revenue history of the Sundarbans.

opposed by the neighbouring zamindars who claimed the land cleared by the grantees. This led to a chronic feud between Henckell's lessees who acquired the name and status of talukdars (their grants being taluks) and the zamindars, resulting in the elimination of the weaker lessees. In 1792 the number of lessees was reduced to 16.

In 1782, the Government asserted its exclusive right to the Sundarbans and the region was surveyed by one Lt. Hodges who divided all the forest as far as the river Pasur into 236 blocks. The aggregate area of these Sundarbans blocks was computed at 1,702,420 acres or 2,660 square miles.

In 1830 rules for the grant of the forest area were issued and land was eagerly taken up mostly by the Europeans resident in Calcutta. By 1835, 110 lots had been granted, the total area of the grants being 551,520 acres. The grants were made in perpetuity at a rental of Rs 1.8 annas per acre. Nothing was payable during the first 20 years but it was prescribed that one-fourth of the area should be fit for cultivation within 5 years, failing which the grant was to be forfeited to the Government. However, upon petition by the grantees for more liberal terms, the rules of 1830 were modified in 1853, grants were to be made for 99 years and the revenue assessed on them was reduced to about 6 annas (16 annas to a rupee) per acre with nothing payable for the first 20 years. The grantee was required to have one-eighth of his grant fit for cultivation in 5 years. The earlier grantees were allowed the option of giving up their old

leases and taking fresh leases under the new rules. About seventy per cent of the earlier lessees accepted the modified provision. Altogether 157,990 acres were held under the rules of 1853.

The rules of 1853 were, however, superseded by several sets of sale rules after 1862, but as the latter proved inoperative, a revised set of rules came into force in 1879. Under these rules, two types of grants were made; (i) blocks of 200 acres or more were leased to large capitalists who were prepared to spend time and money on them; and (ii) plots not exceeding 200 acres were leased to small capitalists for clearance by cultivators.

(a) Large Capitalist Rules

It was thought that the unlimited grant of 1853 had merely opened the way for speculators and made the fulfilment of any clearance conditions practically impossible. By the new rules, clearance conditions were relaxed to a single condition of one-eighth of the area by the end of the fifth year of the lease, but to ensure early clearance the revenue free period was reduced to 10 years and the succeeding rates fixed at higher standards. (Ascoli: 16) The term of lease, however, was reduced from 99 years to 40 years. According to the rules, the Government reserved to itself all rights to minerals and to its proprietary rights but the grantee had, what was termed hereditary and transferable occupancy rights, in fact the right of a permanent tenure holder. It was stated that all lots applied for must be compact and that cultivation must not be

scattered but proceed regularly through the blocks. If there was only one applicant the grant would be sold at a price of Rs 1 per acre (compared to the Rs 2.8 of the rules of 1853), and in the case of there being more than one buyer for the same land, the sale would be decided by auction. Twenty five per cent of the purchase money was required to be paid at once with the balance to be paid within a month. One-fourth of the total area was forever exempted from assessment as an estimated allowance for unassessable land; the balance was leased free of assessment for 10 years and thereafter at the following rate :

Table 2.2.1 Rates for Revenue Assessment under Large Capitalist Rules

Area	Rate in Annas for Standard Bigha		
	11-15 yrs	16-20 yrs	21-40 yrs
Khulna	$\frac{1}{2}$ - 1	1 - 2	2 - 4
Bakerganj	2 - 4	3 - 6	6 - 12

Source : Ascoli:15

On the expiry of the original lease of 40 years, the grantee could renew the lease for a further 30 years.

(b) Small Capitalist Rules

While the Large Capitalist Rules merely attempted to reconcile the rules of 1853, the Small Capitalist Rules of 1879 were an attempt to plough virgin soil. Under these rules, plots of land below 200 bighas were given to small settlers guaranteeing them a formal lease for 30 years if the land was brought

under cultivation within two years. The 30 years' lease allowed a rent free term of two years with progressive rates of rent on the cultivated area, fixed with reference to rates paid in the neighbourhood by ryots to landholders for similar land. If available, an area of unreclaimed land equal to the cultivated area was included in the lease, and in addition, the lessee could bring under cultivation any quantity of land adjoining his holding which he might find bona fide unoccupied. The holding was liable to measurement every 5 years and all cultivated land in excess of the area originally assessed could be assessed at the same rate. (O'Malley : 142)

The tenure was heritable and transferable. Two forms of lease were prescribed under these rules: (i) a cultivation lease; and (ii) a haoladari lease. The former would presumably give the status of a ryot, the latter that of a permanent tenureholder. The only actual difference in the terms of the leases was that the latter gave the power to sublet to cultivators though not to create undertenures, while the former gave no such right. (Ascoli : 16-18)

The system that followed soon showed its defects. It caused a heavy loss of revenue, afforded no adequate control over the landlords and encouraged a system of sub-infeudation by which middlemen were introduced between the original grantee and the cultivator. The original lessee, in order to

recoup his initial outlay, often sublet to smaller lessees in return for cash payments. And the same process was carried on lower down the chain with the result that the land was eventually reclaimed and cultivated by peasant cultivators paying rack rents.

It was accordingly decided in 1904 to abandon the Large Capitalist Rules and the Small Capitalist Rules and to introduce a system of ryotwari settlement as an experimental measure in which small areas would be let out to actual cultivators. It was decided that assistance would be extended to the cultivators by the Government in the form of advances, as well as by constructing tanks and embankments and clearing the jungle for them. In Khulna, however, almost the whole of the area available for settlement had already been leased to capitalists. Table 2.2.2 shows the area already settled, with the revenue payable, and the area remaining to be settled in the Khulna Sundarbans.

(c) Estates

At the time of the Permanent Settlement the whole district of Jessore contained only 122 estates. The number of estates, however, subsequently rose enormously and when Khulna district was formed in 1882 there were 971 revenue paying estates in the district of which 770 were permanently settled and in 1908 this figure rose to 781 and that of temporarily settled estates to 199. In the Sundarbans tract which was not permanently settled, there

Table 2.2.2 Land Settlement in the Sundarbans

Description	Area in acres	Revenue			
		Present		Eventual	
		Rs.	A. P.	Rs.	A. P.
Permanently settled estates	61,081.27	38,952	7 9	46,050	7 9
Estates settled under the rules of 1853	121,159	31,107	0 0	35,780	0 0
Estates settled under the large capitalist rules	36,696	9,532	0 0	22,209	0 0
Estates settled under the small capitalist rules	11,842	14,729	0 0	14,916	0 0
Estates settled under the Regulation and other Acts	82,152.25	90,003	7 4	90,144	7 4
Redeemed estates	12,801.98	-	-	-	-
Waste lands remaining to be settled	3,852.54	-	-	-	-
Reserved Forest	1,090,727.54	-	-	-	-
Total	1,420,312.58	184,323	15 1	209,099	15 1

Source : O'Malley: 143

were 171 estates which were periodically settled. In some of these estates the Government was the proprietor and in others, settlement holders had proprietary interests. These settlement holders were commonly known as zamindars or talukdars. While the latter were petty land-holders who resided on their estates, the larger proprietors (the zamindars) were generally non-resident. The taluks had their origin in the separation of a part of estates by zamindars for sale, gift or otherwise, and the talukdars paid their revenue either through the zamindars or directly to the Government. However, the exactions of the zamindars soon obliged them to obtain recognition as owners of distinct estates.

In the Sundarbans the term taluk had a meaning different from that found in other parts of the district. In the Sundarbans, grants themselves were called taluks and their possessors talukdars. Reclamation tenures granted for jungle clearance were called jangalburi abadkari or patitabadi. They were permanent tenures, held exempt from payment of revenue for a fixed period subject to a specific assessment for land brought under cultivation.

In other areas, tenure holders directly under zamindars were known as talukdars and those under independent talukdars were called gantidars. Gantidars were variously known as haoladars or patnidars and there were several grades of under-tenure holders below them.

The rates of rent paid by the cultivators in Khulna varied according to the position and quality of the land and also according to the demand for it. Land growing cash crops like pan or betel-leaf, sugar cane and other high return crops, fetched a higher rent.

The average rate of rent for different varieties of land in the three subdivisions of the district (Khulna, Bagerhat and Satkhira) were as follows:

Table 2.2.3 Average Rent for Different Varieties of Land

Land Type	Average rate per acre : in Rupees		
	Khulna	Bagerhat	Satkhira
<u>dhani</u> land (for rice/pulses)	4.8-9	3-18	3-7
<u>bagan</u> or garden land	9-18	6-9	8-40
<u>pan/betel-leaf</u>	9-18	6-9	7-40

Source : O'Malley : 108

Although, as we have already noted, very few ryotwari settlements were made in the Khulna Sundarbans, as most of the tracts were already settled under the rules of Large Capitalists and Small Capitalists, significant settlements were made under the ryotwari system in other areas of the district. As regards their different classes, the rate of rent paid by the ryots and the under-ryots varied from 6 annas to Rs. 45 per acre, the

average worked out at Rs.12 per acre. In the Sundarbans there were special rates, which varied between Rs. 1.8 annas and Rs. 3 per acre. Privileged rents were paid by some tenants, such as the original settlers who had cleared the jungle, and their descendants. Similar concessions were allowed to tenure-holders and under-tenure holders and to their successors in consideration of the outlay incurred in clearing the jungle and maintaining embankments.

The provisions of the Bengal Tenancy Act (Section 50) made it clear that unless a landlord could prove that the rate of rent had been altered within the preceding 20 years, it should be presumed to be permanently fixed. Thus the provisions tended to convert the holding of an occupancy ryot into a permanent and hereditary tenure and a suitable investment for the moneyed classes. Accordingly, there was a tendency for the non-cultivating middlemen to buy up the rights of the occupancy ryots, sublet the lands to the under-ryots who actually cultivated them, and extort exorbitant rents from them. Thus, while the holder of a permanent holding directly under the proprietor, payed rent varying from Rs 1.8 annas to Rs.6 per acre according to the class of land, which was about a sixth of the annual value of the gross produce, under-ryots in their turn, paid either half their annual gross produce or if they paid in cash, about a third of the value of the gross produce.

As the jungle was gradually pushed back and more

land was brought under cultivation, steady progress was made in the settlement of cultivators in the new clearings not only from other parts of the district but also from other districts.

As opposed to the 24 Parganas Sundarbans (Ascoli: 1921 : p.158), where cultivators moved into the jungle and settled in isolated homesteads, the possibility of settlement in new agricultural areas of the Khulna district was severely limited because of the more active drainage pattern, the comparative youth of the rivers and hence the greater depth (volume) of the annual floods. Instead, cultivation here was carried out by means of seasonal migration. A large number of ryots (tenant cultivators) who lived and cultivated the land north of the Sundarbans also had land in the Sundarbans.

The cultivating seasons in the Sunderbans are later than those further north, and the plan which is followed by these double cultivators is this. The months of Chaitra, Baisakh and Jaistha, corresponding roughly to the English months of April, May and June, are spent in cultivation at home. The husbandman then having prepared his home cultivation, embarks with his ploughs, oxen, and food and proceeds to his abad or Sunderban clearing. July, August and September are spent in ploughing and sowing and preparing the crops there, the peasant building a little shed as a dwelling for himself. The water gets high in August and September, but this is little impediment to cultivation. A considerable portion of the land under rice is situated below high water mark; but the planting is easy, for rice sown in higher lands is transplanted into these low lands when it is strong enough to bear the waters. After having sown and transplanted his Sunderban crop, the husbandman returns home,

and these outposts of civilization are absolutely abandoned By the middle of December, the home cultivated rice has been cut and stored and the peasant then returns to the Sunderbans, and reaps the crop on his clearing there. At this time of the year (January-February), reapers or dawals crowd to the Sunderbans and are extensively employed for the harvesting. When the rice is cut and prepared for sale, the beparis or dealers come round and buy it up and the zamindar also sends his agents round to collect the rents from the cultivators. (Westland: 1874: 178-180)

While considerable cultivation in the more remote parts of the Sunderbans followed this pattern, in the nearer tracts especially when a sufficient number of people were gathered in a new clearing, they tended to form a settlement and to remain permanently where they were. The largest group of immigrant population consisted of cultivators from Bakerganj who settled down on the newly reclaimed land. In fact everybody had their eyes on the fertile south. There were for example, the high caste Hindus living on the banks of the Kabadak, the Bhadra or the Bhairab, who could not get enough fertile land in their own neighbourhoods and turned their eyes to the south, obtained a ganti, or large allotment, settled it in plots with the actual cultivators and maintained their families on the difference between the rents they received and those they paid. The landless classes in Kalaroa thana where 'all the land had already been cultivated and there was no room for any expansion' and naturally wages were low, went to the southern thanas to help reap the plentiful harvests and then returned home taking with them their wages earned in money and

kind. Fisherman also came every year from Chittagong, built huts in the Sundarbans and remained for three or four months after the rains, catching and salting fish. There were in addition, many traders who came from as far as Dacca, Mymensingh, Tippera (Comilla), Sylhet and Noakhali mostly in their cargo boats and bought rice paddy, oil-seeds, timber, firewood and other jungle products such as shells, honey, bees wax, the thatching leaves called goal-pata, canes and reeds and sold raw cotton, hardware, glassware, sugar, shoes, kerosene oil, coal, lime and tobacco, in the village haats.

Besides the regular merchants and shop-keepers of the towns and the villages, there were a number of traders carrying on business in the Sundarbans. Some with large boats visited the clearings at harvest time; others stationed in a particular village bought up grain and sold it to the larger traders; and everywhere there were the farias who pushed themselves between the petty sellers and the regular traders (commonly known as beparies) buying in very small quantities from the former and selling to the latter. In this way rice passed from the hands of the real producers. The bulk of agricultural exports consisted of rice, as the excess of production over consumption resulted in a massive surplus.

The multitude of waterways contributed greatly to prosperity by rendering carriage to the market and sometimes direct to Calcutta easy and relatively cheap.

The regular route of the river-borne trade from Calcutta to East Bengal or the other way round, ran through the district and was well served by steamers. For internal trade, however, country boats provided the principal means of transport owing to the innumerable tributaries which enabled boats to find their way to every village and almost to the door of every cottage. (O'Malley: 127)

For the same reason roads were necessarily few in number, short in length and unmetalled as they were little used during the winter season.

In the Sundarbans, the husbandman either imported labour for the cultivation of his land which was usually extensive, leased it out on a regular basis¹ or rented it out on a share cropping basis. His share was usually one half of the produce and the tenant provided seed, ploughs and other necessary agricultural implements, while the lessor supplied the bullocks.

The average daily wage of a common adult field labourer was about 4 annas plus two meals which cost an additional 2 annas; but during the cultivating season, wages rose to 8 annas per day plus two meals. Agricultural labourers were commonly paid in kind and the labourers employed as harvestors (cutting paddy) were paid usually with a share of the crop varying from one-third to one-eighth of the amount cut by them.

The average prices for the two staple crops, rice and gram, and salt were as follows (in seers and chattacks per rupee):

1. On a yearly basis against a fixed sum of money received in advance.

Table 2.2.4 Prices for Various Crops/quantity per rupee

Year	Common rice		Gram		Salt	
	S.	Ch.	S.	Ch.	S.	Ch.
1904-05	14	9	9	4	12	12
1905-06	11	13	12	9	14	6
1906-07	7	13	8	15	13	12

S - seers (approximately 2 pounds)

Ch - chattacks (approximately 1/8th of a pound)

Source : O'Malley: 110

Within the district of Khulna no distinction was made as such between the urban and the rural population for there was no industry or manufacture necessitating the formation of towns and almost the entire population subsisted on agriculture. There were three towns: Khulna, Satkhira and Debhata with a total population of 24,236 representing 2 per cent of the population of the district. The remainder of the population lived in the 3,441 villages. Most of these villages were thinly populated with 46 per cent of the rural population living in villages with between 500 and 2000 people. Northern villages were the most densely populated and among these Daulatpur, Phultala, Dumuria, Bagerhat, Kachua, Morrellganj, Bardal, Kaliganj, Kalaroa, and Tala had the highest density.

Southern villages were sparsely populated. In fact villages were few in number and consisted generally

of a cluster of cultivators' huts. In the Sundarbans they were even fewer and smaller, for the settlers there did not tend, as in other places, to group themselves into villages. '... many of the village names on the map represent no sites of villages as we usually understand a village, but wide stretches of waving paddy, with homesteads scattered about them, where the cultivators' families live apparently in perfect seclusion.' (Ibid: 58)

Section III

The Class Structure

Having given this summary of the history of settlement pattern in the Sundarban region, we can now try and identify the principal classes and the intermediary interests which emerged during the process of settlement and see how this structure may have been mediated by ecological factors. The analysis will also answer the two vital questions set out earlier, relating to (i) the siphoning of surplus from the real producers by the various non-producing interests and (ii) the differentiation of the peasantry.

From the above analysis of the history of settlement pattern, we could argue that the net result of Henckell's and his successors' scheme for settlement in the Sundarbans tract was: (a) surplus extraction in terms of cash (deposit), progressive rents and forest resources; (b) the assured continuation of this process by 'protecting' the productive forces and relations from natural (famine) and human (robbers) threats; (c) the strengthening of the hand of the metropolitan class in order to reinforce the stability of the interests of the empire. and finally (d) the creation of a native class of an 'idle' (divorced from production) hierarchy of subservient rent-receivers 'protecting' the interests of the empire.

The Large Capitalist Rules of 1879 were specifically evolved to serve the interests of the European speculators. The Small Capitalist Rules, on the other hand, were necessary because the benefits measured against cost,

time and trouble in the reclamation of the tracts would not have justified interest in the lots below 200 bighas for the Europeans. This in fact had the added benefit of creating a subservient class. Table 2.2.1 shows that in the Sundarbans very little land had been settled with direct cultivators.

Thus during the process of settlement we can identify :

- (1) a class of metropolitan speculators;
- (2) Talukdars (Gantidars) and a hierarchy of rent-receivers who formed the intermediary interest between the State and the
- (3) direct producers who were settled in small plots as rent payers (middle peasants);
- (4) the absentee owners who came from different parts of the district, produced for the market and employed wage labour;
- (5) the migrant labourers who eventually settled down and share-cropped;
- (6) the seasonal agricultural labourers and finally
- (7) the traders and the middlemen. It is interesting to note that there were no settled landless peasants and it is conceivable that the agricultural labourers who eventually settled down in small holdings were, over the years, dispossessed to landlessness.

The surplus was siphoned from the real producers in different ways and by different classes :

- (1) through legal rents and other illegal exactions by the rent-receivers, the State, the zamindars and the talukdars for example;
- (2) by rich absentee landowners who produced exclusively for the market employing wage labour;
- (3) by other settled rich peasants who rented out land and received a crop-share paid at fifty per cent of the produce by the immigrant settlers and in some cases also

by the local poor peasants; and finally,
(4) in terms of interest payments collected by the
mahajans (money-lenders).

It is difficult to establish exactly who these mahajans were. It may however, be assumed that in the absence of scope for investment either in agriculture in terms of improving the forces of production, or for that matter in any other avenues, it was the rich and the surplus farmers themselves who diversified into money-lending. This gave them a high return not only in terms of exorbitant interest rates but also in terms of power and increased access to land. The volume of trade also helped money lending to flourish.

Thus it seems, that part of the surplus extracted in terms of rent by those who were totally divorced from production, was transferred out of the country by the State and the metropolitan bourgeoisie and a part was used up in conspicuous consumption by the zamindars and the talukdars. The surplus labour exploited by the absentee rich farmers and the settled rich peasants through either wage labour or share-cropping, on the other hand, was employed in usury or in buying land. Usury capital in turn was, of course, itself invested in similar ways. Rent, wage labour, share-cropping and usury were thus both symptoms and mechanisms of differentiation within the peasantry.

It is difficult to determine the position of the petty traders, for example, the farias, who bought grain in small quantities from peasant households and sold it to the bepari in the market and thus linked the production end with the distribution end and lived on the difference

between their buying and selling prices. The point however, is whether or not this difference is peasant surplus labour.

The peasant is dependent on the trader for the disposal of his surplus unless the trader's function can be substituted by some such organisation as a village cooperative. Unless he can dispose of his surplus, the peasant cannot procure the goods he needs for consumption and therefore cannot continue to produce. Thus, to the extent that there is some degree of petty commodity production, the petty trader/middleman performs the function of reproduction of an enterprise. In order to live, the trader must make a profit from somewhere but the surplus he lives on is perhaps a division of capitalist profit. Although the trader does not directly extract the surplus labour of the peasant, he does share in the extracted surplus and to that extent he is exploiting. It would seem, however, that when a trader is in a position to build up a monopoly where he can dictate prices and obtain super profits, as does for example, a bepari or an aratdar, until someone cuts into his monopoly, his exploitation is much more clearly demonstrated.

From my analysis of the exploited classes, it would seem that the migrant share-croppers found themselves even poorer than the poorest settlers who had at least enough land to cultivate with their family labour and received one hundred per cent of their produce. The migrants, in fact helped their owners to obtain 50 per cent of a crop from their hitherto unused land. In any case, they share-cropped only those lands which would not have

been economic to cultivate with family labour let alone with hired labour. However, the poor peasants themselves, in the absence of subsidiary occupations, in a bad year were forced either to borrow from money lenders or to sell their land and thus the process of polarisation was already taking place.

Conclusion

It is clear from the history of reclamation and settlement in the Sundarbans that the south of the district has historically been affected by market economy. From the way the absentee owners operated however, in that they produced for the market and employed wage labour, it is difficult to say that the mode of production was distinctly capitalist. If one takes Lenin's relatively simple definition of commodity production and wage labour, one sees that the particular sector of production in the south was characterised by a mixed form i.e. commodity production and labour as wage labour. But to the extent that some wages for some categories of labour were paid in kind, this means that for those categories, the division of the total product between necessary and surplus product was determined not by the total production-circulation process but directly at the level of the enterprise, so that surplus was being extracted not as surplus value but directly as surplus product. One can only say that this represents a hybrid form of capitalism which is profoundly transformed by its articulation with a backward peasant economy.

As for our principal hypothesis i.e. that ecology has a significant impact on the way rural society is structured, it is important to emphasize that while the decision of the Government to reclaim land and encourage settlement was augmented by the interests of the empire, its execution and in fact the schemes themselves and their terms and conditions which directly produced the rent-receiving classes were dictated to a great extent by the ecology of the Sundarbans. Similarly, the nature of

the operations of the rich farmers were made possible by the differences in the cropping seasons (making it possible for them to shuttle between their lands in the north and the south for cultivation and harvesting), soil fertility, the clearance of the jungle and finally easy and relatively cheap accessibility to markets. All these factors attracted them to the south to profit at a very low investment cost. The same ecological factors largely explain the formation of the other classes. Thus, the

structure is determined in the long run by the characteristics of the geographical environment, which affords men a greater or lesser possibility of developing their productive forces. But once definite social relations have arisen, their further development takes place according to its own inner laws, the operation of which accelerates or retards the development of the productive forces The dependence of man on his own geographical environment is transformed from direct to indirect. (Plekhanov: 1956: 217)

CHAPTER 3

THE DYNAMICS OF THE THREE VILLAGES

Section I

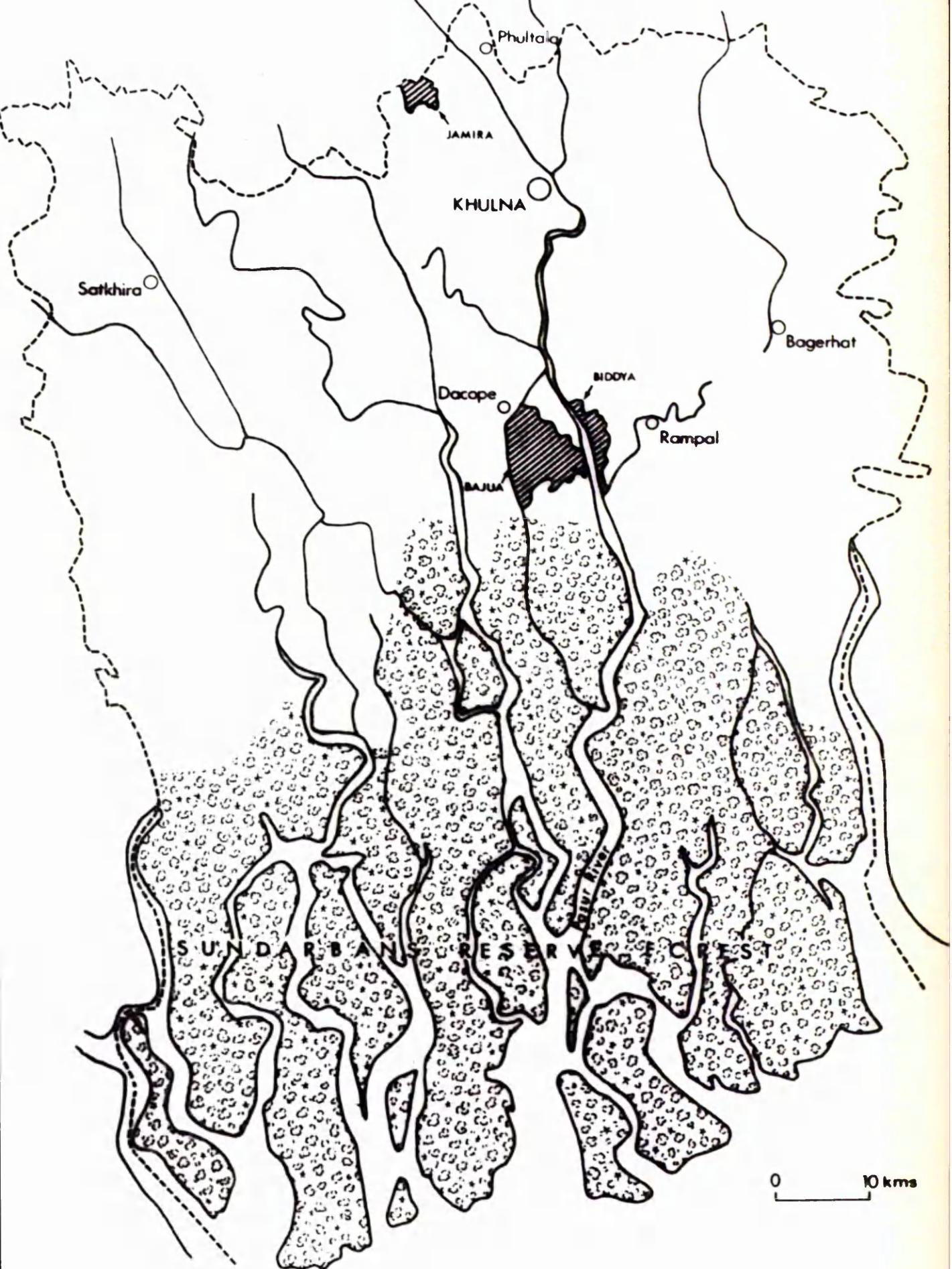
Ecology And Agrarian Structure

1. Overview of the Three Villages

The three villages are Bajua, Biddya and Jamira. Bajua and Biddya are situated in the south, on the Passur river about 35 miles from Khulna city, and some 8 miles north of the Sundarbans. Biddya is naturally flooded (tidal) and is across the river from Bajua which is embanked. Jamira, lies along the northern-most border of the district some 19 miles north of Khulna city. While Bajua and Biddya are both connected to the district headquarters by riverine transport, only Jamira is connected by road transport - the Khulna-Jessore main road, and later by a brick-laid, badly damaged road. The journey time to Bajua or Biddya is approximately 5 hours from Khulna by motor-launch and about 2 hours to Jamira which journey normally includes a bus-ride for the first 13 miles to Phultala followed by what is locally known as a van ride for the remaining six miles to the village.¹

Administratively, Bajua is under Dacope Police Station (PS) in Khulna Sadar subdivision; Biddya is under Rampal PS in Bagerhat subdivision, and Jamira is under Phultala PS also in Khulna Sadar subdivision (Maps 3.1.2 and 3.1.3).

1. A van is a tri-cycle with a flat-board of about 3 feet by 2½ feet for carrying passengers or goods. Passengers usually sit hanging their feet. It can carry as many as 4 passengers.



Map 3.1.1 LOCATION OF THE THREE VILLAGES.

Bajua is the largest and perhaps the most advanced of the three villages. It has the biggest local market in the immediate region which meets once a week, a fish factory which offers employment to a significant number of the local population for a greater part of the year, a cooperative which has succeeded in making a start in disseminating the new technology in rice production, a bank which is operating more on the strength of the fish factory and the cooperative than the people, a 'degree college' offering undergraduate degrees in social sciences and in commerce, and a secondary school. It has a significant immigrant population who have settled in the past twenty years or so. Over 50 per cent of the population of this village is landless.

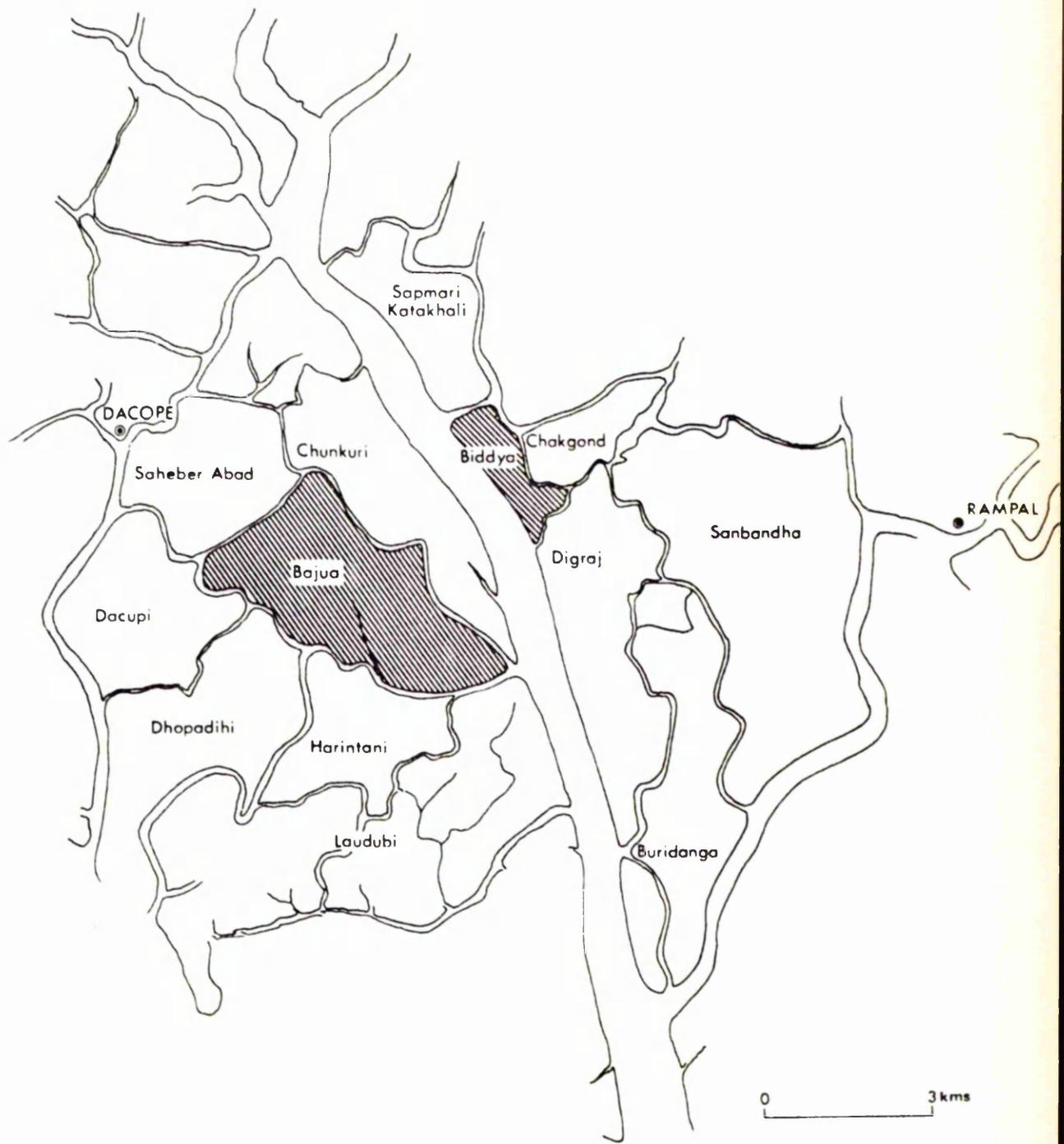
Biddya, on the other hand, is the smallest and most sparsely populated of the three villages and has no important infra-structural complex as in Bajua. Many people seem to be dependent on Bajua, the village across the river, especially for marketing whatever agricultural and non-agricultural goods they may produce, for buying the industrial commodities they need and for employment. In both Bajua and Biddya, a significant amount of land is held by absentee owners.

Jamira is the most densely populated village of the three. Its economic basis is a domestic coir-making industry which contributes towards the subsistence of most of the poor and landless families.

2. Ecology and Cropping Pattern

Bajua is high, 70 per cent of the village area is elevated above the surrounding area¹; whereas Biddya

1. Interview with Thana Agricultural Officer, Circle Officer, and village leaders. January-March 1977.



Map 3.1.2 LOCATION OF THE SOUTHERN VILLAGES: Bajua and Bidhya.

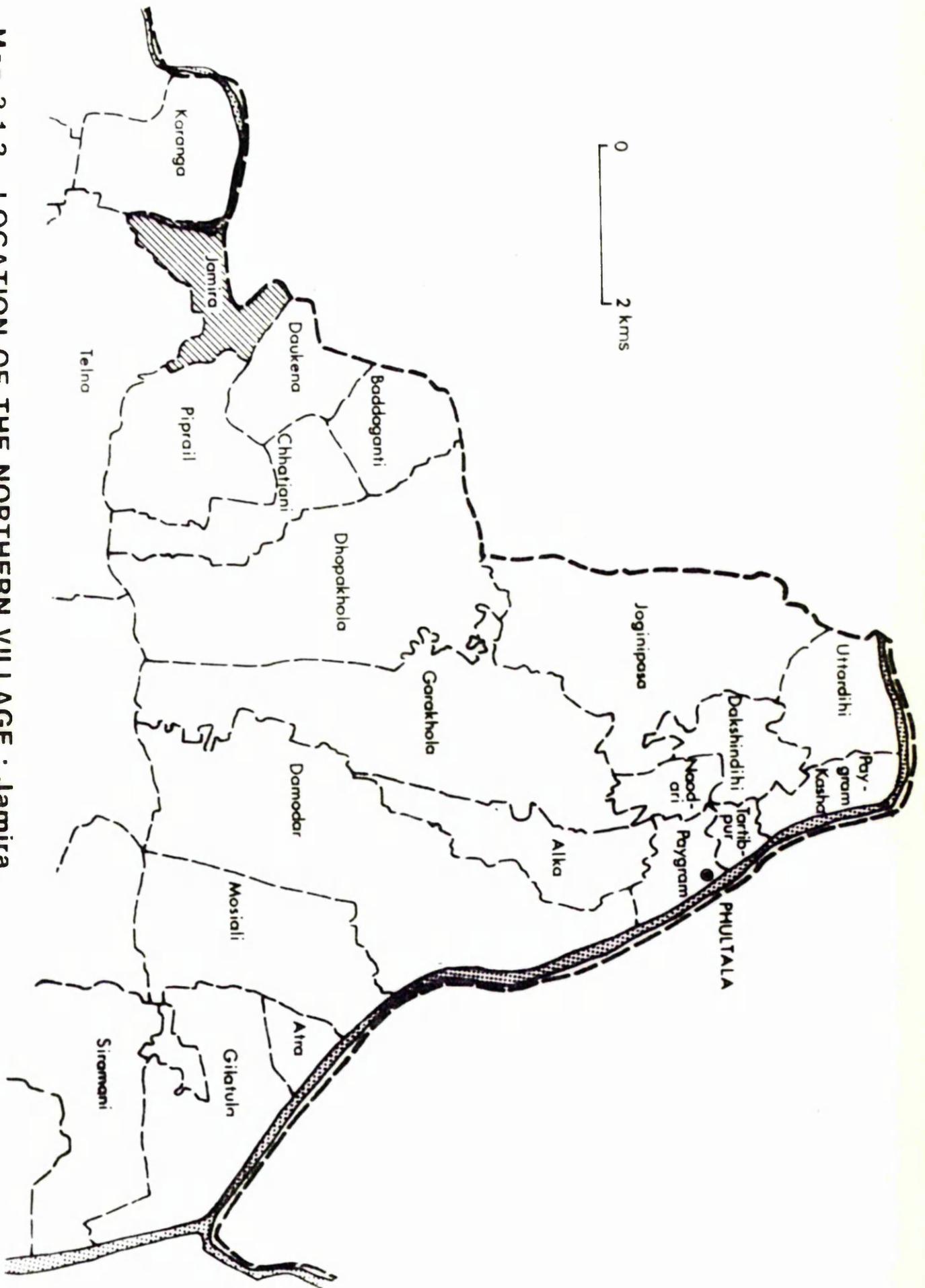


Plate 5. High tide in Bajuna khal (canal)



Plate 6. Low tide in Bajuna khal.

Map 3.1.3 LOCATION OF THE NORTHERN VILLAGE : Jamira.



is low, flat, and level with the surrounding area. The region being very close to the sea and directly connected to it by the Passur river and being subject to tidal flows, the villages experience high salinity especially during the dry months between late October and early April. In the monsoon months, however, salinity disappears as the rivers are influenced by the Padma river flow, local rainfall and runoff. Consequently, both the southern villages have traditionally been mono-crop areas producing transplanted aman in the deeply flooded monsoon months. Bajua however, was embanked under the 'first phase' of the Coastal Embankment Project in 1972. Broadly, this embankment has caused the major ecological difference between Bajua and Biddya which has in turn resulted in other dissimilarities. The embankment was ostensibly meant to protect this area from salinity, promote multi-cropping through irrigation and consequently to improve the general living condition of the villagers. In the case of Bajua, the opposite has happened principally because of the elevation factor of the region. Bajua, as I have already said, is a high, slightly dome-shaped area whereas the adjacent villages are very low. In the monsoon months, while the Bajua area is shallowly flooded, the adjacent areas are deeply flooded which forces the latter to release their excess water through the flap-gates of the embankment. This causes Bajua to dry out as a result of which, rice production has fallen drastically from about 36 maunds to 12 maunds per acre.

Apart from this, the embankment has made Bajua a breeding ground for poisonous snakes. The massive embankment was built out of earth taken from the adjacent ground which has resulted in a discontinuous line of ditches. These were not covered because any such attempt would have been beyond the available resources of the project and

in fact it was argued that these ditches would benefit the villagers as they could cultivate fish in them. It is these ditches and the many creeks which run through the village with their tidal flow cut off due to the embankment, that breed snakes. In the summer, not infrequently, these snakes emerge (especially after dark) and stretch out on the embankment.

As Bajua is still predominantly a single crop area, land is left after the harvesting of the aman crop in October-November until early April to grow weeds and a kind of long grass (locally known as bete). After the first rain, when it is time to plough the land again, to ensure that there are no snakes in the fields, the practice is to cutout the embankment and to let saline water in to the fields. This drives the snakes out and helps destroy the weeds and bete but reduces soil fertility.

During the past three years however, some rabi crops such as water-melon, melon, linseed, and oil seed have been tried out in the winter months with some success and all the indications are that acreage under rabi crops is increasing although in absolute terms this is insignificant. The winter rice-crop IRRI which has been grown since 1973 is, on the other hand, on the decline. The argument is that rabi crops need less capital investment, less water and are low-risk crops in that chances of pest-attack are lower. IRRI on the other hand, is particularly sensitive to salinity (EPWAPDA:pp.112-115).

IRRI cultivation started in this area in 1973 when the World Relief Council started a cooperative primarily to help the local Christian population although eventually others joined in. The Council extended loans, free of interest to cooperative members and in the first years

the number of blocks rose to over one hundred. Originally, most of the blocks consisted of 20 - 40 acres of land rented in from some half a dozen owners on a share-cropping basis in which the owners got 50 per cent of the crop. However, the following year when IRRI was first introduced, the land owner's share was reduced to 25 per cent, the input costs being borne entirely by the members of the block.

The practice has been that a piece of land, usually about 25 per cent of the total block size, is separated from the block and is cultivated by the members of the block as a collective plot. This pays for the loan from the cooperative. The rest of the land is shared out between the members according to the man-power of the different households. If there is a shortage on the collective plot, the difference is made up by the members according to the size of the land they cultivate. After harvesting and drying, the paddy from the collective plot is stored free of charge in the cooperative's store-house to be sold in the market when prices rise. IRRI, however, is sold immediately as it cannot be dried due to the monsoon and consequently cannot be stored.

Two years later, however, this is in 1975, the World Relief Council was renamed the Christian Services Society (CSS) and started operating along Government lines. Interest was charged on loans at 11 per cent and the rent on pumps was raised from Tk.650 to Tk.1100 for one season and security of land against loans was introduced. By 1977 the number of IRRI blocks had fallen to just over 30. There are of course other reasons for this decline of interest in IRRI cultivation. Winter IRRI (boro) which is cultivated by pump irrigation is dependent on sweet monsoon water held in the canals which run through

the village. The canals used to be connected with the Passur river which is now embanked with sluice gates primarily to release water during the winter season. Sometimes people who have no interest in IRRI blocks, especially those who live by fishing in the canals during the winter months, either remove a part of the embankment or tamper with the sluice gates so that the canals get a fresh supply of fish. This naturally rapidly increases the salinity of the canal water and makes its use in the IRRI blocks impossible. As a matter of fact the IRRI block members have never had a good harvest since 1975 and now that the subsidy on inputs has been reduced and costs have increased substantially there is a marked lack of interest in IRRI cultivation. Finally, as mentioned above, IRRI unlike aman cannot be stored through the monsoon months to be sold when market prices rise.

Across the river Passur from Bajua is Biddya, the second village in the south. Biddya is saline and shallowly flooded by tidal water restricting production to a single crop of transplanted aman.¹ This seasonal flooding especially during the monsoon months is perhaps the most significant hydrological feature in relation to agriculture. The surface drainage system of the area is mainly provided by an intricate network of innumerable channels and creeks. The Passur river is tidal throughout the dry season. Both the salinity of the water and the tidal range decrease during the monsoon. However, the mean level of the river rises during this season resulting in a higher tidal level. During the dry season the tidal character again becomes more pronounced and saline water gradually penetrates inland up the channels and creeks.

1. Biddya is ^{be}to/embanked under the second phase of the Coastal Embankment Project.

Depth of flooding usually depends on topographical position.

Artificial field bunds are put up round all shallowly flooded rice fields in order to protect the crop from excessive water pressure in the winter and from salinity in its maturing stage in early winter. However, since the villages across the Passur river including Bajua were embanked under the first phase of the Coastal Embankment Project, water pressure has increased in Biddya severely damaging the newly transplanted aman crop especially in open fields. This pressure also washes out the artificial field bunds and its high sediment content in some areas silts up the paddy fields in a matter of days completely ruining the early crop.

Thus the two major impacts of the embankment project on Biddya and adjacent villages in the deep south are; excessive water pressure and over sedimentation. As a result of this, crop production has dropped from around 30 maunds per acre before 1971 to about 20 maunds after 1973.¹ On the other hand, in Bajua the embankment constructors did not take account of the elevation factor of the village and the result was a drastic fall in output.

The northern village, Jamira is located in a relatively dry region with no rivers or significant canals within a radius of six miles. It is situated on flat, high land with a low surrounding beel area which is moderately flooded in the monsoon months.

As in all the southern villages, paddy is the main crop mainly grown in the beel area, notably Jamirar Beel and

1. Production did not take place in 1971 as the villagers fled across the border into India during the Pakistan Army crackdown. The drop in production has been particularly obvious since 1973.

Dakatiar Beel. Usually a mixed aus-aman crop is planted in this area early in the season, and the aman is harvested before the main thrust of the monsoon sets in. This leaves the aus plants to grow with the increasing flood level until late October-early November when they are harvested either standing in waist deep water or from boats. However, this process of mixed double-cropping cannot be maintained for three consecutive years as the aus crop shatters at harvest time every third year of mixed cropping. Every two years therefore, it is necessary to change the pattern and to grow aman only and then renew the process of mixed cropping from the following year.

In the winter virtually nothing is grown in the beel area as the fields do not dry out sufficiently for rabi crops to be grown. On the higher land, however, important crops such as oil seed and linseed are grown. Water melon especially of a high yielding variety is becoming extremely popular as a cash crop but in terms of absolute acreage this is insignificant. On the higher land, in the early part of the monsoon, an aman crop is grown followed by an aus crop in the late monsoon, or alternatively a single aman crop is grown. Whether a single crop or two crops are grown depends on the opportunity cost of labour weighed against the output difference between one crop and two crops.

Unlike the southern villages, Jamira has much more vegetation especially coconut, betel-nut and a variety of palm trees. It is these cash crops, and the labour process that goes into making coconut products which forms the bulk of the commodity exchange in the market and offers the poor and landless peasants in particular, their only dependable non-agricultural employment. It is this which keeps them, in income terms, above subsistence level.

3. Demographic Structure

The population of the three villages is 5520, 1206 and 2755 for Bajua, Bidhya and Jamira respectively (Table 3.1.1). Corresponding areas for the three villages are 3048, 860 and 458 acres giving them a population density of 1159, 897 and 3850 people to the square mile. Although the population density for Bajua and Bidhya is lower than the national average, for Jamira it is well over two and a half times the national average.¹

When these figures are compared with the figures for 1961 and 1974, some interesting observations can be made.

In Bajua, between 1961 and 1974 population increased by only 1.7 per cent as against an increase in the number of households of 20 per cent and for the period between 1974 and 1977, by 5.9 as against an 8.9 per cent increase in the number of households. Corresponding figures for Jamira are 38.4 and 42.1 per cent for the first period (1961-74) and 6.9 and 12.1 per cent for population and household increase respectively, for the second period (1974-77).

The figures for Bajua can only be explained by significant outmigration principally to India during the first period and immigration from other parts of the district. The pattern of Hindu outmigration to India took the form of encouragement to Hindu children, especially when they had completed their schooling, and to the able-bodied, to migrate while the older members of the family generally stayed behind. On the other hand, new families moved into Bajua having bought cheap land from the outmigrating families. In terms of population movement, outmigration significantly outweighed immigration. Outmigration is still taking place

1. The national average being 1320 people to the square mile (Ahmed:1976).

Table : 3.1.1

LAND AND POPULATION ENUMERATION OF THE THREE VILLAGES/Area in acres

	1961				1974				1977				Pop. Increase		HH Increase					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
Area Agri Land	Pop.	Pop. Density Per Sq. Mile	Tot. HH	Av. Farm Size	Pop.	Pop. Density Per Sq. Mile	Tot. HH	Av. Farm Size	Pop.	Pop. Density Per Sq. Mile	Tot. HH	Av. Farm Size	1961	1974	1961	1974	1961	1974	1961	1974
BAJUA	3048	2682	5124	1076	845	3.17	5211	1094	1015	2.64	5520	1159	1105	2.42	1.7	5.9	7.7	20.1	8.9	30.8
BIDDYA	860	757	1535	1142	297	2.54	-	-	-	-	1206	897	220	3.44	-	-	-21.4	-	-	-25.9
JAMIRA	458	403	1862	2601	330	1.22	2577	3601	469	0.85	2755	3850	526	0.76	38.4	6.9	48.0	42.1	12.1	59.4

SOURCE : Area, population and total HH figures for 1961 and 1974 are from Village Population Statistics, Bureau of Statistics, Govt. of Bangladesh, 1977. The figures for Biddya for 1974 are wrong and the error is acknowledged by the Bangladesh Bureau of Statistics. Figures for 1977 from field work 1976-77.

as can be seen from the figures for the second period but population movement seems to have stabilised. In Jamira, on the other hand, the population growth rate of 2.7 per cent during the same period is almost on a par with the national average growth rate. The slightly higher rate of increase in the household figures can be explained by the splitting up of joint families especially in view of the increased pressure on land. The figures for the second period, however, at 3.3 per cent per year, show a higher rate of population growth than the national average.

With regard to the second southern village, as indicated in Table 3.1.1, figures for 1974 are not available. It is, therefore only possible to analyse the general trend for the period between 1961 and 1977. This shows, instead of an increase, a dramatic decrease in population. In explanation, it can be assumed that the outmigration to India following partition in 1947 was no different in Bidhya than in Bajua up to the early sixties. In the later period however, it seems that the population decrease is due to a steady outflow of the population ever since the Government started acquiring land in the area in the early sixties for the eventual development of Chalna port, a few miles south of the village. The embankment in the villages across the Passur river causing greatly reduced yields in Bidhya has contributed to the incentive to outmigrate especially in the past five years. As a result outmigration to India has accelerated but some families have settled in Khulna, the district headquarters, and some, especially the landless peasants have settled in Bajua.

Bajua, on the other hand, despite its fall in yield in the past few years has in the past, drawn a large number of small families. Its fish factory which was set up in

1966 and now employs about 300 workers, offered fishermen a ready market and made fishing a lucrative occupation; the private cooperative generated greater employment opportunities through the adoption of the seed-fertilizer-irrigation technology; and finally, its local market, the largest in the region, allowed scope for petty business - all these contributed to a significant immigration of small families.

4. Distribution of Land

Table 3.1.2 shows population distribution in the three villages as a whole according to economic status. Here the six class strata into which the population of the three villages was previously divided¹ according to their production from the land, have been grouped into two major categories, i.e. (a) below subsistence and (b) subsistence; based on whether or not each family produces above or below a minimum average of eight maunds of paddy per head of adult household members per year.

Table 3.1.2 shows, that while the landless peasants constitute the largest single class with 42 per cent of the households, as against the national average of 33 per cent, for the three villages taken together, over 74 per cent of the households are in fact living below subsistence level. It is also interesting to note here that contrary to what one would expect, the average household size for the poorer class is smaller and increases as the economic level of the household rises with the exception of the self-sufficient classes.

A breakdown of the figures for each of the three villages is given in Table 3.1.3. This shows a significant difference

1. See methodology pp. 27-32

Table : 3.1.2 Distribution of Aggregate Population
(3 Villages) according to Economic Status

Economic Status Structure	All three villages				
	Households		Population		Average Household size
	Number	%	Number	%	
Total	1851	100	9481	100	5.1
<u>Below Subsistence Level</u>	1377	74.3	6535	68.9	4.7
1. Landless	779	42.0	3455	36.4	4.4
2. Poor	598	32.3	3080	32.5	5.1
<u>Subsistence Level</u>	474	25.6	2946	31.1	6.2
3. Subsistence	239	12.9	1417	14.9	5.9
4. Self-sufficient	140	7.6	763	8.0	5.4
5. Surplus	72	3.9	541	3.7	7.3
6. Rich	23	1.2	216	2.3	9.4

Source : Field Work 1976-77

in the percentage of landless peasants between the three villages, i.e. 52 per cent for Bajua, 20 per cent for Bidhya and 30.4 per cent for Jamira. The high percentage of landlessness for Bajua may be explained by the combined effect of the pauperisation process and the fact that a significant number of small families have migrated into Bajua and have taken up employment in the fish factory or have started some petty business such as procuring fish from the area and selling to the factory, or shop-keeping in the village bazaar. On the other hand, the exceptionally low percentage of landlessness in Bidhya can be understood by the fact that a large number of small families, especially the landless families who cannot usually share-crop as they do not have the means to do so (not having bullocks,

Table : 3.1.3 DISTRIBUTION OF POPULATION IN THE THREE VILLAGES ACCORDING TO ECONOMIC STATUS
 BAJUA BIDDYA JAMIRA

	Households		Population		Av. size HH	Households		Population		Av. size HH	Households		Population	
	Number	%	Number	%		Number	%	Number	%		Number	%	Number	%
Total	1105	100	5520	100	5	220	100	1206	100	4.8	526	100	2755	100
Below Subsistence	883	80	4093	74	4.6	153	69.5	778	64.5	4.1	341	64.8	1664	60.4
1. Landless	574	52	2475	44.8	4.3	45	20.4	213	17.7	4.7	160	30.4	767	27.8
2. Poor	309	28	1618	19.3	5.2	108	49.1	565	46.8	5.2	181	34.4	897	32.6
Subsistence	222	20.1	1427	25.8	6.4	67	30.4	428	35.5	6.4	185	35.1	1091	39.6
3. Subsistence	129	11.7	772	14	6	26	118	151	12.5	5.8	84	16	494	179
4. Self-sufficient	54	4.9	375	6.8	6.9	33	10.4	121	10	5.3	63	12	267	9.7
5. Surplus	30	2.7	171	3.1	5.7	14	6.4	124	10.3	8.9	28	5.3	246	8.9
6. Rich	9	0.8	109	2.0	12	4	1.8	32	2.6	8.0	10	1.9	75	2.7

Source : Field Work 1976/77

for example) and only have their labour to sell, moved out of the village in view of the decreased employment opportunities. Most of the landless peasants had in the past worked as contract labourers for the surplus farmers. But when these farmers, or at least a large number of their family members, started to move out of the village, opportunities for contract labour naturally declined.

The figure of 30.4 per cent which represents the landless peasants in Jamira, the northern village, is closer to the national average of 33 per cent. Here all the normal causes for landlessness may have been in operation. Population increase and market forces have led to the break-up of joint families and the concomitant further subdivision of land, making plots uneconomic to cultivate resulting in their eventual selling off. There are others who are driven off of their land when they fail to pay back loans taken from the village money lenders at usurious interest rates against a collateral of land.

It is interesting to note that although the percentage of landlessness varies a great deal between the three villages, for the below subsistence level (landless plus poor) taken as a whole, this variation is considerably less. The combined figures are 80 per cent in Bajua, 69.5 per cent in Bidhya and 64.8 per cent in Jamira.

Before I introduce Table 3.1.5 explaining the polarisation structure measured in terms of access to land, it would be useful to point out that in both the southern villages absentee ownership¹ is very high being 47 per cent and 31 per cent respectively for Bajua and Bidhya. Whereas in the northern village, Jamira 69 per cent of land owned locally is actually outside the village (Table 3.1.4).

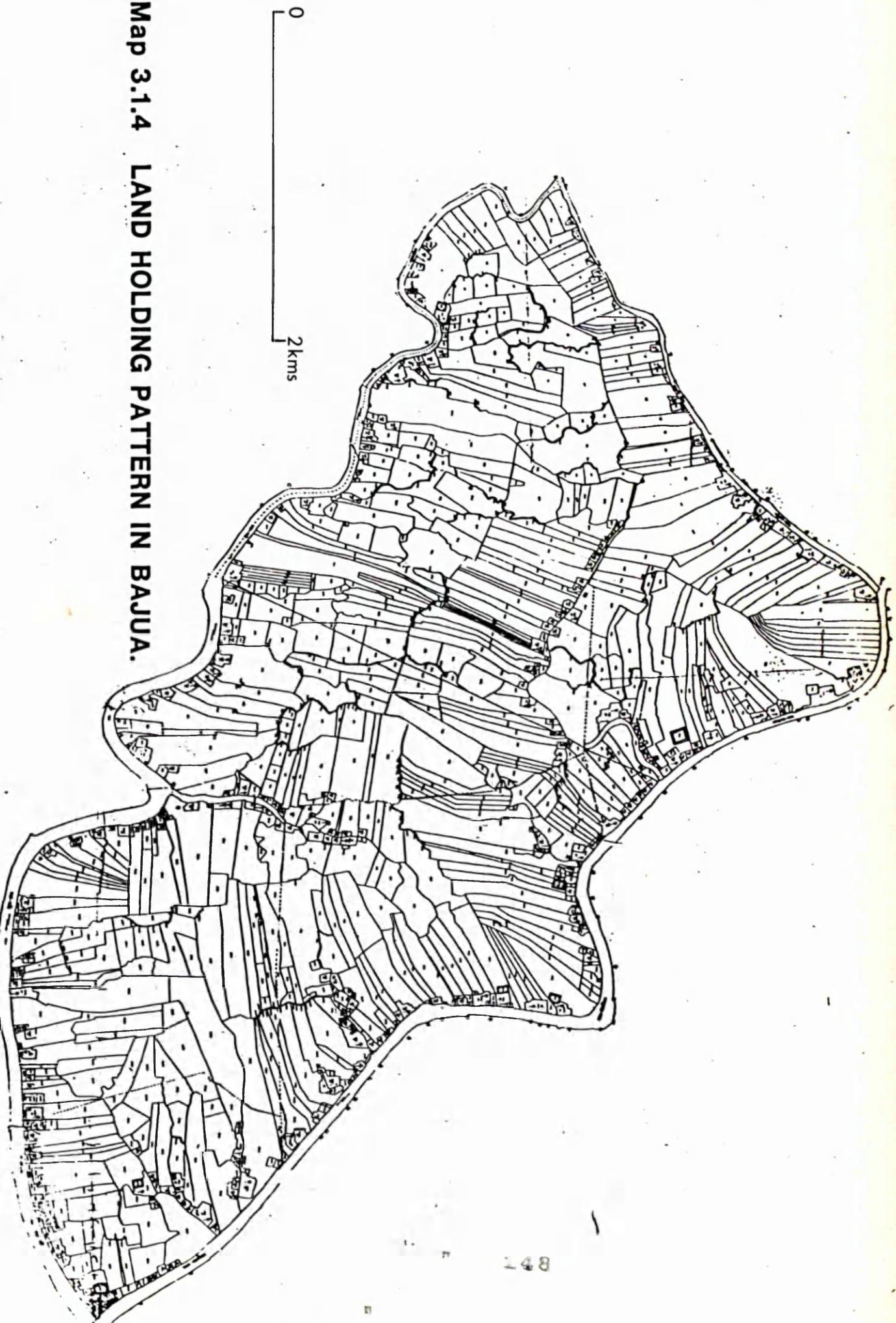
1. By 'absentee ownership' I mean only those who own land but do not live in the village and not those who do not cultivate their lands but may live in the village.

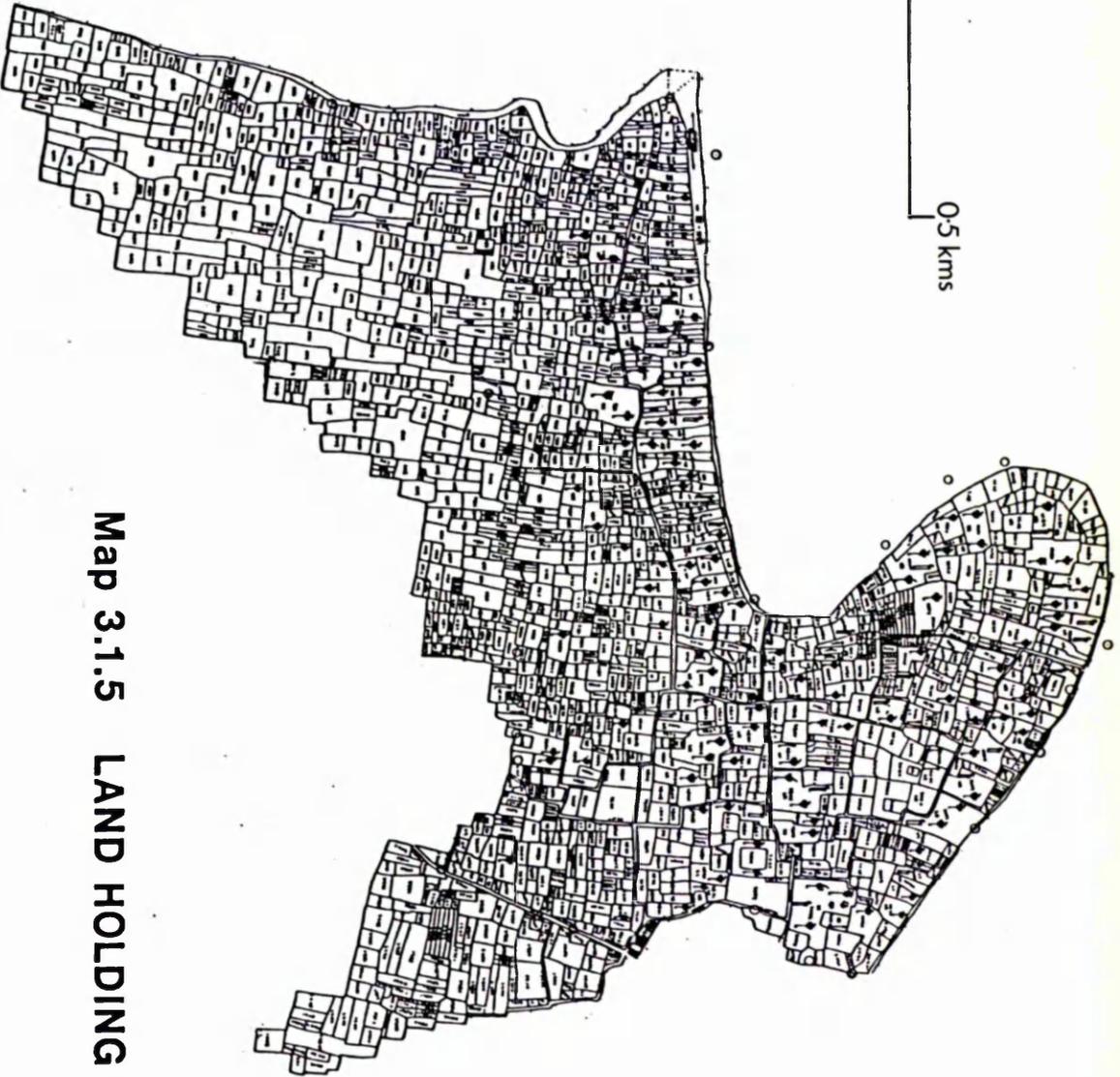
This is explained by the very high man-land ratio in the village. As land is scarce and outmigration is insignificant there is very little buying and selling of land. But even if a family moved out of the village, relatives or perhaps more frequently surplus farmers would be in a position to buy up their land. This would be possible because most holdings are very small. In the southern villages, on the other hand, when the landlords who were mostly absentee owners emigrated to India and when farmers with large holdings move out of the village and want to sell their property, preferably to one buyer, the villagers were not rich enough individually to buy the land. This naturally brought in 'foreign' buyers. Thus the structure of large holdings and absentee ownership which came about directly as a result of land reclamation and settlement in the Sundarbans, continues in the south. The difference in land pressure between the northern and the southern villages is clearly demonstrated by Map 3.1.4 and Map 3.1.5.

I shall now turn to the question of polarisation. Table 3.1.5 shows a highly skewed distribution of land. In Bajua 80 per cent of the households (below subsistence level) have only 19 per cent of the land, whereas the surplus category (surplus plus rich) making up 3.5 per cent of the households own almost double this amount at 37 per cent. Similarly, in Biddya, over 69 per cent at the bottom level own 22.9 per cent and 8.2 per cent at the top own 40.8 per cent of the land. In Jamira, about 65 per cent own 12.4 per cent as against 7.2 per cent who own around 45 per cent which is almost four times the share of the bottom category. The share of the subsistence and surplus farmers seems fairly consistent across the three villages.

The pattern of polarisation in the distribution of land in the three villages can be seen from Table 3.1.6. It shows both from the distribution by ordinal groups, which has been used in drawing up the Lorenz Curve in Figure 3.1.2 below, and also from the calculated Gini concentration

Map 3.1.4 LAND HOLDING PATTERN IN BAJUA.





Map 3.1.5 LAND HOLDING PATTERN IN JAMIRA.

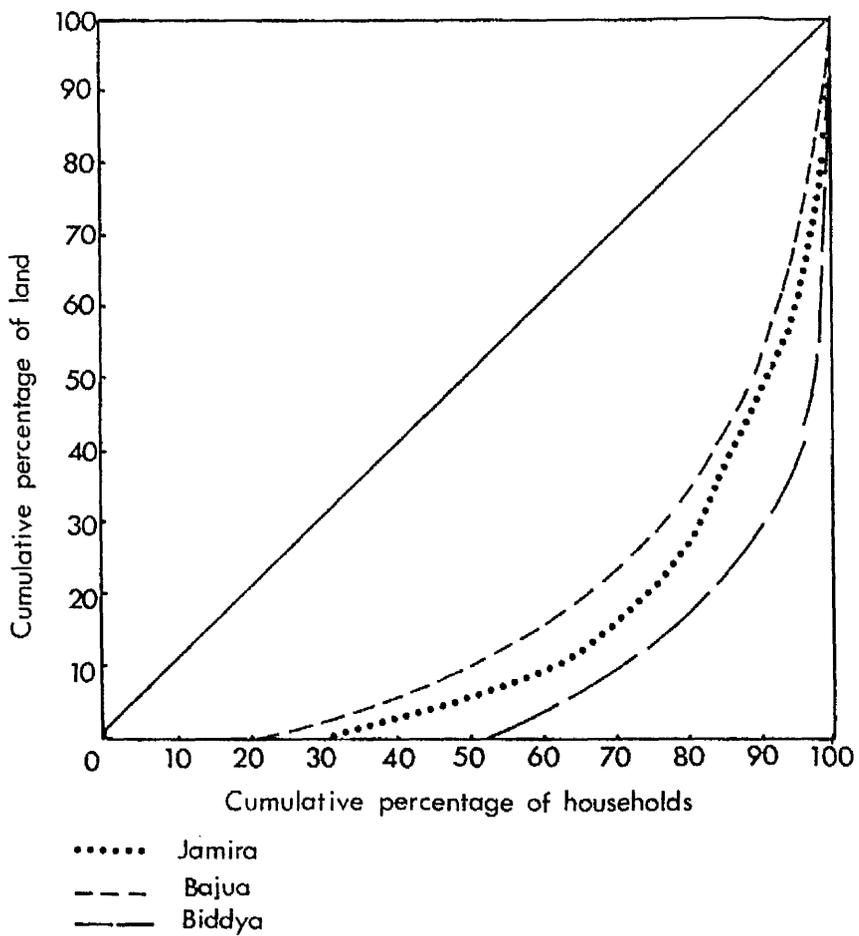


Fig. 3.1.1 LORENZ CURVE SHOWING CONCENTRATION OF LANDHOLDING (based on 100% Survey).

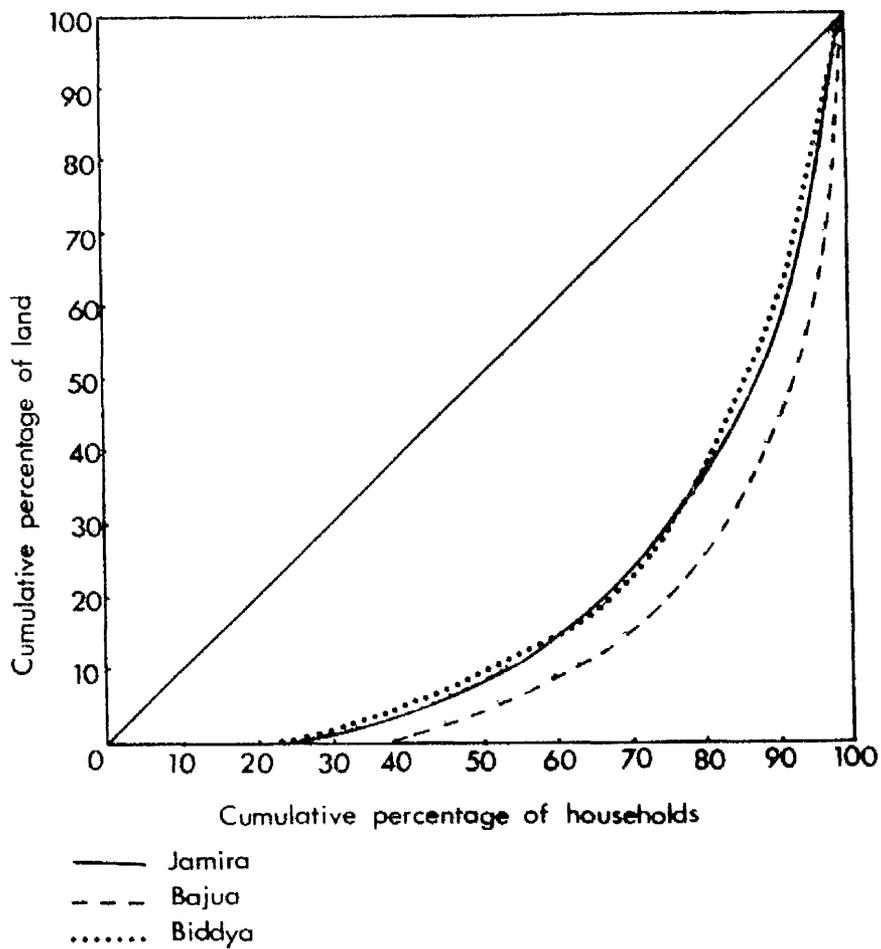


Fig. 3.1.2 LORENZ CURVE SHOWING CONCENTRATION OF LANDHOLDING (based on sample Survey).

Table : 3.1.4

Local and Absentee Land Ownership

	Area (Acres)	Water- Body + Homestead	Agri- cultural Land	Local Owner- ship	%	Absentee Owner- ship	%
Bajua	3048	*366	2682	1425	53	1257	47
Biddya	860	**103	757	523	69	234	31
Jamira	458	***55	403	682	169	-279	-69

* worked out at 12%; 6% water-body; 4% homestead and 2% embankment.

** worked out at 12%; 8% water-body; 4% homestead.

*** worked out at 12%; 10% homestead and 2% roads and water-body.

Source : Area: Village Population Statistics, Bangladesh Bureau of Statistics.

Figures for Local Ownership : Field Work 1977.

ratios that Bajua is the most and Biddya the least polarised of the three villages.

Thus, broadly, the following features emerge from the land distribution tables (3.1.4 and 3.1.5): (a) a significant proportion of the land in the two southern villages is owned by absentee owners; (b) the majority of rural households except those in Bajua, own land; (c) a large proportion own only very small areas of land and (d) there are few large owners although they control a sizeable amount of the land. However, until we have seen what proportion of the households depend on the land for their livelihood, how the land is cultivated and on what basis

Table : 3.1.5 DISTRIBUTION OF AVERAGE HOLDING IN THE SAMPLE VILLAGES/Area in acres

	BAVJA				BIDDYA				JAMIRA				ALL 3 VILLAGES							
	Agri. Land		Agri. Land		Agri. Land		Agri. Land		Agri. Land		Agri. Land		Agri. Land							
	No of HH	% of totl HH	Area	Av. size farm per HH	No of HH	% of totl HH	Area	Av. size farm per HH	No of HH	% of totl HH	Area	Av. size farm per HH	No of HH	% of totl HH	Area	Av. size farm per HH				
Total	1105	100	1425	100	1.29	220	100	523	100	2.38	562	100	622	100	1.18	1851	100	2570	100	1.39
Below Subsistence Landless	883	80	273	19	0.30	153	69.1	120	22.9	78.0	341	64.8	77	12.4	0.22	1277	74.3	470	18.3	0.36
Poor	574	52	-	-	-	45	20.0	-	-	-	160	30.4	-	-	-	779	42.0	-	-	-
Subsistence Level	309	28	273	19	0.88	108	49.1	120	22.9	1.11	181	34.4	77	12.4	0.42	498	32.3	470	18.3	0.79
Subsistence	222	20	1152	81	5.18	67	30.9	403	77.1	6.01	185	35.2	545	87.6	2.94	574	45.7	2100	81.7	3.65
Self-Sufficient	129	11.7	341	24	2.64	26	11.8	76	14.5	2.92	84	16	117	18.8	1.39	239	13.0	534	20.8	2.23
Surplus	54	4.9	284	20	5.36	25	10.4	114	21.8	4.95	63	12	150	24.1	2.38	140	7.6	548	21.3	3.90
Rich	30	2.7	285	20	9.50	14	6.4	146	28.0	10.43	28	5.3	145	23.3	5.18	72	3.9	576	22.4	8.0
	9	0.8	242	17	26.9	4	1.8	87	12.8	16.75	10	1.9	113	21.4	13.30	23	1.2	442	17.2	19.2

Source : Field Work 1976/77

Table : 3.1.6 DISTRIBUTION OF FARM AREA BY ORDINAL GROUPS

BAJUA

<u>Cumulative % of Farms</u>	<u>Percentage of Area Owned</u>
Bottom 52%	0%
Bottom 80%	19.2%
Bottom 91.7%	43.1%
Bottom 96.6%	63.0%
Bottom 99.3%	83.0%
Bottom 100%	100%
<u>Concentration ratio</u>	<u>.78</u>

BIDDYA

Bottom 20.4%	0%
Bottom 69.5%	22.9%
Bottom 81.3%	37.4%
Bottom 91.7%	59.2%
Bottom 98.1%	87.2%
Bottom 100%	100%
<u>Concentration ratio</u>	<u>.59</u>

JAMIRA

Bottom 30.4%	0%
Bottom 64.8%	12.4%
Bottom 80.8%	31.2%
Bottom 92.8%	55.3%
Bottom 98.1%	78.6%
Bottom 100%	100%
<u>Concentration ratio</u>	<u>.67</u>

(owner operated, share-cropped or using wage-labour), and how their differential access to land predetermines the production process, it is not possible to say how important land is as an analytical factor. Simple land distribution among the rural population can give us only a superficial understanding of the process of differentiation and does not

bring out the inner conflict and dependence between different classes within the broader exploitative mechanism of the social formation. All this will be brought into focus at a later stage.

5. Forms of Tenancy and Tenurial Relations

In the selected villages the various forms of cultivation are :

(i) Self-Management, where land is cultivated by the owner by using family labour only, by hiring wage labour in addition to family labour during the peak season or by using hired labour only. The choice will largely be determined by the availability of family labour, size of holding, non-agricultural occupations (teaching, clerical work and factory work, for instance) and extra-economic conditions such as position and status of the family.

(ii) Renting. There are various forms of renting, the most common form being share-cropping. The other forms are fixed renting, leasing, ekrat and usufructuary mortgage all of which will be explained below.

The amount of land rented in or out depends on the availability of rented land on the market, adult members and land holding ratio, non-agricultural employment opportunities, accessibility and size of various plots and ownership of the implements needed to cultivate land, i.e. bullocks and ploughs. A poor peasant, for example, may own a few tenths of an acre of land but may find it uneconomic to own the implements and thus may be forced to rent out his land and work as a wage labourer. On the other hand, if his family consists of one or two additional male members old enough to cultivate he may be able to justify owning these implements and instead

of renting out his small piece of land may rent-in more land so that his man and bullock power can be put to optimal use. Whether or not he rents in more land than he can cultivate using family labour only will depend on the existing wage rate. If the wage rate is high, the cost of the wage labour may not justify share-cropping or any other form of renting-in land. Poor peasants however, usually rent-in land because of the high rate of uncertainty in alternative sources of employment.

- (a) Share-cropping : This is the most widespread method of renting-in land. In the most common form of share-cropping the tenant gives 50 per cent of his produce to the owner, the tenant paying all the inputs. However, it is also possible for the owner to demand a share of 66 per cent of the produce in return for sharing the inputs. In some areas, the tenant gets two-thirds of the aus crop as production of aus involves more labour than aman. The period of tenure may be fixed, normally between 1 and 2 years, but an indefinite period of tenure is not uncommon.

There are two traditional practices that accompany share-cropping in the two southern villages : (i) the tenant must pay to the landowner a deposit of TK.100 per bigha¹ of land he rents which the latter will return at harvest time, (ii) in addition to this, a sum of money called salami, fixed at 1 maund or Tk.100 per bigha of land rented, has to be paid to the owner by the tenant in addition to a half share of the produce. These deposits are paid at the beginning of the season and are invested by the owner either in money lending or in petty business. Although he is technically supposed

1. A bigha is usually one third of an acre i.e. .33 of an acre. However, the size of a bigha varies from village to village. Thus a bigha may be .42, .50 or .52 of an acre of land.

to return the salami at, harvest time, the landowner seldom needs to do this. In fact, the tenant rarely wants the owner to pay back this sum as it acts as a guarantee that the land will be rented out to him again the following year. The point is that the system prevents most poor peasants from renting-in land as they cannot save enough to be able to pay these deposits. However, the system seems to be on the wane. There is no such system in the northern village, Jamira. However, a practice that is common to both southern villages and to the northern village - and in fact to most villages in Bangladesh - is that under the system of share-cropping, tenants are tied by an extra-economic bond in which not infrequently, the tenant or any of his family members may have to render 'services' to the landowner gratis. This, however, does not usually occur if the tenant owns more land than the owner.

(b) Fixed renting : In this form of renting, a fixed amount of crop is demanded by the landowner as a precondition, irrespective of total output. The amount stipulated is usually half of what would be produced in a normal year. The usual practice is also to dictate the crop. The system is preferred by non-cultivating landowners especially absentee owners, in order to ensure a minimum return from the land, failing which the tenant is subjected to extra-economic pressure. Fixed renting is discouraged by poor peasants in order to avoid the risk of a possible crop failure. However, in the southern villages a few middle peasants have been seen to prefer renting-in land on a fixed cropping basis in which case they separate a fraction of the rented land for the production of a high yielding variety of rice in order to meet the landowner's requirements. On the remainder of the land they produce trad-

itional aman, mostly for their own consumption.¹ In the northern village the system of fixed renting is almost non-existent.

(c) Leasing : This is a form of fixed renting in which the land is rented for a fixed period normally 1 to 5 years, against a fixed sum of money, paid in advance. The system is preferred by absentee landowners but not widely practiced in the southern villages. In the northern village, there is only one absentee owner and she rents out her land on a lease basis.

(d) Ekrat : This is a practice in which a debtor transfers the use of his land to his creditor which is returned only upon repayment of the loan. In other words, it is a form of mortgage in which land is the collateral. There are, of course, other forms of mortgage in which the use of the land is retained either entirely or on a share-crop basis by the debtor/owner. The system of ekrat is quite common in Biddya and is least practiced in Jamira.

(e) Usufructuary Mortgage : Complete usufructuary mortgage is a legal system which is exactly the same as ekrat but the land is automatically cleared after a period of 12 years and is returned₂ to the owner/debtor even if the loan has not been repaid. However, in order to avoid the eventual

-
1. Given a choice, most peasants, especially middle peasants prefer aman rice to any other rice for family consumption and are usually reluctant to change their rice habits. For poor peasants such choices do not exist.
 2. In 1974, the period of 12 years was reduced to 7 years however the point was questioned in Parliament on the grounds that 7 years was not enough to raise the money lent through the use of the land. In a High Court Judgement, the Government lost and subsequently appealed to the Supreme Court. Until the decision of the Supreme Court is heard, therefore, the minimum period for complete usufructuary mortgage must be as previously, i.e. 12 years.

return of the land to the debtor, the creditor sometimes gets the (illiterate) debtor to sign in advance a 'deed of sale'¹ to the effect that the land has in fact been sold to the creditor for the sum of money advanced. This is done to prevent the debtor from going to court to establish his rights to the land under Usufructuary Mortgage. In the unlikely event that the debtor succeeds in repaying his debt, the land is returned to him. A more frequent practice is to avoid this 'deed of sale' which "looks like an official document" and to get the debtor/owner to sign at the bottom of a blank sheet of paper "which looks perfectly innocent". The content of this sheet of paper is decided and filled in later according to the motive of the creditor. This is done in order to avoid suspicion and to preserve the trust "which is the key to village power and politics".²

Of the various forms of renting, share-cropping is the most prevalent and area under share-cropping is second only to that under self-management. This is most obvious in the southern villages, especially in Bajua where absentee ownership is 47 per cent. These absentee owners usually depend on a middle-man or an agent to fix their land with dependable share-croppers. This middle-man may sometimes be the original agent who assisted the owner in buying his land from a departing Hindu landowner. Usually the owners do not visit the village to arrange agreement but the potential share-cropper normally visits the owner (shaheb) in the city and there the terms and conditions of tenancy are discussed.³

1. Otherwise known as kabla dalil.

2. Discussion with villagers in Jamira, 1977.

3. It is alleged by the villagers that these terms and conditions are determined by the willingness of the tenant to procure 'gifts' for the shaheb which include women.

At harvest time the share of the absentee landlord is secured in one of three ways ; either the urban landlord sends his agent to check the harvest and transport his share to the city, or the tenant himself takes the landlord's share of the produce to the city. In some cases, the landlord visits the village and collects his share personally. The landlord's share of the produce is either sold in the village market or taken to the city to be sold at a higher price. However, almost all absentee owners arrange to take their annual consumption requirements to the city. Some absentee owners as a condition of rent demand that the tenant use part of the land to produce enough 'quality' paddy to meet the needs of the urban based landowner and his family.¹

The crop is usually shared out in the fields or in the tenant's house with the prior permission of the landlord. However, if the landlord is a resident of the village, then the crop is as a rule, transported to his house where it is shared out. Hay and other by-products are usually shared in the case of a resident owner or entirely retained by the tenant in the case of an absentee owner. This is one of the reasons why tenants seem to prefer to rent absentee owner's land rather than a resident landlord's land.

Cost Sharing Practices

As has been explained, output is shared in most cases equally between the tenant and the owner. Variations on this however, depend on who pays what proportion of the inputs. A major portion of the costs, such as labour (including hired labour that may be required in the peak season), bullocks, manure and fertilizer are entirely paid for by the tenant. In the southern villages, hardly any fertilizer or manure is used for the local variety of

1. I was told by the villagers that quality paddy producing fine grain rice has a lower yield.

paddy although high yielding aman is frequently grown and fertilizer is either shared at the outset or provided entirely by one of the two parties, usually, but not necessarily by the owner, the cost is then adjusted from the harvest before the produce is shared. If it is a winter crop, and the crop involves pump irrigation as is the case in Bajua where several acres of pooled land are intensively cultivated by owners who have formed a society and taken a loan from the local CSS Cooperative, then the landowner gets only 25 per cent of the crop.¹

In the northern village, Jamira, fertilizer is normally used in addition to manure even on local varieties of rice, the cost being borne by the tenant although the produce is still shared equally between the owner and the tenant.

1. For a discussion of the CSS cooperative see pp. 137-147

Section II

Occupational Structure

This section deals with some of the important occupations of villagers. The various occupations are elaborated in Table 3.2.1 which shows that in all three villages, owner-cultivation is the major occupation.¹ The figures for owner-cultivation are 21.3 per cent, 30.9 per cent and 31.5 per cent respectively for Bajua, Biddya and Jamira (column 2). In Bajua, owner-cultivators as the majority of the households are closely followed by factory workers at 20.1 per cent and agricultural labourers at 18.6 per cent of households. In Biddya, owner-cultivators are followed by share-croppers at 26.8 per cent and fishermen at 18.6 per cent. In Jamira, on the other hand, in terms of occupation, after owner-cultivators, coir-makers are the most dominant group with 20 per cent of households.

It is not necessary to describe all the various occupations. Of the major ones owner-cultivation and share-cropping have been dealt with in the analysis of the modes of production in the three villages in Chapter 5, and agricultural wage labourers will be taken care of in Section III of this chapter. In this section, I would like to examine some of the primarily non-agricultural occupations. In the southern villages these are fishing and the fish factory, and a range of local occupations, and coir-making in the northern village. My choice in this has been dictated by the dominance of these particular activities in the occupational structure of the villages and also because ecology seems to have made a significant contribution to the way in which these occupations have evolved.

1. 'Owner-cultivators' includes those who cultivate predominantly with wage labour and also those cultivating with family labour.

Table : 3.2.1

DISTRIBUTION OF OCCUPATIONS

Total households	Cultivators			Share-croppers	Agri-cultural labourers	Factory labourers	Salaried	Professional	Business	Fishermen						
	Owner Cultivators	HH ⁺	% ⁺⁺													
Bajua 1105	236	21.3	167	15.1	206	18.6	222	20.1	20	1.8	18	1.6	75	6.8	96	8.7
Biddya 220	68	30.9	59	26.8	11	5.0	8	3.6	1	.4	5	2.3	5	2.3	41	18.6
Jamira 526	166	31.5	22	4.3	48	9.1	18	3.4	24	4.6	21	4.0	54	10.3	-	-

Coir-makers	Weavers	Van drivers	Boatmen	Munchi*		Beggars	Widows	Others
				HH	%			
Bajua -	-	-	20	2	36	2	5	2
Biddya -	2	.9	13	5.9	1	2	1	3
Jamira 105	20	32.6.1	13	2.5	-	6	-	13

+ Households

++ Percentage of total households

* Cane workers

Source : Field Work 1976-77

1. Fishing and the Fish Factory

Some distinct occupational and employment features characterise Jamira, the northern village, and Bajua, one of the southern villages. In Bajua this is due to a Government programme in which in the mid-sixties, the Government decided to set up a fish factory in the village. But this decision itself was determined by economic and ecological characteristics in that Bajua has the biggest market and is the most central and accessible of the predominantly fishing villages.

The Bajua fish factory started operating in 1967 when it obtained fish especially shrimps, prawns and frog-legs, processed and exported them directly or through their head-office in Khulna. However, the factory went out of operation in 1969 and did not re-open until 1974. Since then, however, production has increased every year. Between 1974/75 and 1975/76, production increased by 30 per cent and between 1975/76 and 1976/77 by 75 per cent respectively. The minimum wage however, which is a standard rate for unskilled workers has not increased during this period and has remained at Tk.5.96 per day, although the wage rate for skilled labourers has increased from Tk.12.00 in 1974/75 to Tk.15.00 in 1975/76 and further to Tk.20.00 the following year.¹

Nor has the salary for permanent staff, whether skilled or unskilled, increased over the same period. There are 53 employees engaged in production and 26 technical staff working in the factory as permanent employees. Their work is supervised by 10 supervisors and 2 officers. A significant proportion of the permanent staff are brought in from outside. The percentage of outside employees is 42 in the supervisory

1. It seems that Government enterprises are just as keen on maximising the extraction of surplus labour and exploiting the economic weakness of unskilled labour and the unskilled labour market (in that they can always be replaced) as any private enterprise.

ranks, 50 in the technical area and 15 in the production force. Understandably however, all the unskilled workers are hired locally.

The factory itself does not obtain fish directly but leaves the job of the fish supply to the fish traders, who are the middle men between the actual fishermen and the factory. The traders live on the margin between their price to the fishermen and the price they get from the factory, this margin can be substantial. The factory price is determined daily, depending on the fish supply and the handling capacity of the factory including manpower available on the day. The greater the supply, the lower the price, thus the price varies between Tk 40.00 and Tk 50.00 per pound of prawns to the traders and the price to the actual fishermen is between 10 and 20 per cent less than this depending on the bargaining power of the trader.

The price of fish increased from Tk 3.00 per pound of prawns in 1973 to Tk 45.00 in 1977 and this in itself has had a significant impact on the socio-economics of the region. "If they catch half a dozen medium sized lobsters weighing about 5 lbs they can sell them for Tk 200.00 which is the price of 4 maunds of paddy; and going by the yield in the past couple of years, it takes about a third of an acre and 365 days before you can produce that sort of money. So where is the incentive for growing more crops ?"¹ Naturally the equation is against crop production.

Bajua and Biddya are ideally suited for fishing especially for prawns and shrimps. The innumerable creeks and feeder canals that run into the fields are shallow and have no fast running water and thus are ideal breeding ground for

1. Interview with the fish factory manager, February, 1977.

prawns. Prawns usually breed between late February and April and when the rains come and the fields become puddled within the artificially put up field bunds, the prawns move into the fields and grow faster in the fresh rain water free from direct tidal flow. Thus, the salinity of the region necessitates the artificial field bunds in order to protect the crops which then transforms the area into an ideal ground for fish culture.

However, not everybody is free to catch the fish. The canals running through the fields are khas (Government owned). The Government, in order to save any expense that might result from litigation arising from fishing rights in these canals and also to obtain a lump-sum revenue, leases out these canals either to a village appointed committee or to a committee appointed lessee, who, in exchange for exclusive fishing rights, puts up field bunds and maintains them at his own cost. As a result of this arrangement, small peasants many of whom have plots inside the field bunds, are deprived of fishing rights on their own land. It is claimed, on the other hand, that the man who leases-in the canals and subsequently obtains the fishing rights in the fields, makes a substantial profit. The minimum lease period is five years. In 1974 the cost of putting up the field bund round Bidhya was approximately Tk 30,000 and the return from selling fish in that year alone was Tk 150,000.¹

In Bajua, on the other hand, since it is embanked, the canals are leased to independent lessees, and no committees are involved as the lessee does not have to assume the additional responsibility of putting up and maintaining field bunds round the paddy fields. Consequently, he does

1. Interview with the Chairman of the Union Parisad, January, 1977.

not have any exclusive rights to fishing in the fields but his rights are limited to a well-defined part of the canal only, a right which he can sub-let to others, usually for a fixed number of days in a specified part of the canal.

Thus, salinity which continues to limit the cropping pattern especially in Bidhya and the region further south, while creating a fishing potential, itself denies access to the opportunity created especially for the poor.

2. Local Occupations

There are other distinctly seasonal occupations which are characterised by ecological factors especially by the proximity of the Sundarbans. One such occupation involves visiting the Sundarbans once a year in order to collect goal-pata (a kind of durable thatching leaf), wood (mainly garan and sundari) and honey to sell usually in Khulna.

The Divisional Forest Office allows a party of two men, one opportunity every year to cut and collect wood or goal-pata. The party is allowed to spend between thirty and forty days in the forest and to collect a maximum boat-load of 200 maunds of wood or 250 maunds of goal-pata. This cargo is taken to Khulna and sold to local traders who may re-channel some of it to different parts of the country. The whole operation takes between six and eight weeks and results in a profit of approximately Tk 1,000.00 if it involves wood and about Tk 1,500.00 in the case of goal-pata.

Others in the village, usually the low-caste munchis (cane-workers), make a living off the ships that anchor in Chalna port. They carry daab in their small boats and exchange them, instead of selling them, for foreign cigarettes,



— Plate 3. 'Gol-pata' - thatching leaves.



Plate 4. 'Bundh' - traditional embankment and irrigation in Biddya.

soaps, jam, powdered-milk, canned orange juice, beer and sometimes other alcoholic drinks which they sell in the local market at high prices. The usual exchange rate is between two and four daabs (a daab costs about 50 paisa) to a packet of cigarettes, two daabs to a beer or a jar of jam, or between 30 and 50 daabs for a bottle of spirits. Their 'selling' prices in the Bajua Bazaar are between Tk 15 and 20 per packet of cigarettes depending on the brand Tk 10 for a beer, Tk 8 for a jar of jam and between Tk 150 and Tk 200 for a bottle of spirits, depending on the brand. In Khulna these commodities sell at a 30 per cent and in Dacca, about a 50 per cent higher price.

These goods are not sold in the open market but 'pushed' as it were. Although selling in the open market (except alcohol) would not be illegal, I am told that if they are seen to be sold, the police or some self-proclaimed representative of the police will come and sieze them for personal consumption, claiming that they are black-market goods, and harass the seller. The buyers are usually fish factory officers, the CSS Cooperative personnel, the few rich farmers especially their adult sons, and the upper-class passengers of the motor-launches which shuttle between Chalna, the port and Khulna city.

The above therefore is a selection of some of the non-agricultural occupations in the southern villages which in addition to the usual work of cobblers, potters, tailors, barbers, iron-smiths, boatmen and various other professions which are usually handed down from father to son are stabilizing factors against the forces of polarization and differentiation.

The point is that these occupations are determined by the ecology of the particular region and I have therefore, in

the next section where I introduce the ecological variables, called them 'ecologically based diversification'. Of all these occupations, perhaps fishing and employment at the fish factory are the most important sources of steady income.

In the northern village fishing is not as important an occupation, nor is there a fish factory offering steady employment to some of the villagers. There are however, some jute mills along the Khulna-Jessore road most of which are within 15 miles of the village. Increasing numbers of landless peasants are seeking jobs in these factories, some have in fact already been employed as factory workers for some time and are more or less settled in these areas.

There are others who work for the factories seasonally and return to their villages at weeding time and again at harvest time, however the economics of the situation would appear to work against this practice. They have to bribe the officer responsible for recruitment everytime they want to go home and also to pay a commission to the middleman who recruits workers from the village. Most workers have to work for over a year before they can make up for their losses incurred in terms of commission paid to the middleman and bribe to the Personnel Officer. It is not until they are well into their second year that they can start saving, working overtime or extra-shifts. The reason they continue to shuttle between the village and factory instead of settling down near the factory is also basically economic. Settling down would involve renting 'proper' accommodation for the family and would also deprive them of their income from coir making. Besides there are sociological reasons for not wanting to be "uprooted" from "home" and live like "refugees" in the "towns".

3. Coir-Making

This process is unique to Jamira and adjacent villages in the north. Almost every landless and poor household who can somehow save or borrow Tk 150 in order to buy a set of equipment is involved in coir-string making. In fact coir making is so widespread and the quality of Jamira coir-string is so good that it sells at a higher price than coir from other villages.

Coir-string making was introduced to the village some twenty years ago by one Ammer Ali Sardar, now a shop-keeper in the village bazaar. Following a visit to India, he brought back with him a machine system made out of wood blocks, panels, nuts and bolts the whole set consisting of three sections.

The set costs only about Tk 150 which is very cheap for a set of machinery that is capable of providing subsistence for a family. Most poor and landless peasants however, find it beyond their means to buy one. Often three neighbouring peasants possess the three parts of a set between them which they interchange and share.

This occupation demands no additional skill other than the ability and perhaps more importantly, the energy to hammer coconut husks for prolonged periods of time and the easily learned art of spinning and string-making. Naturally, most of the family members, including women and children can participate at some stage of the process of production. As one walks through the village, the continuous thudding coming from all directions indicates how widely the occupation has been adopted. Frequently the whole family including three generations may be seen occupied in the final stage of coir making in the public pathway in front of their small hut.

The only raw material that is required is coconut husk and coconuts are produced abundantly in the area. However, with widespread adoption of coir making, the villagers cannot depend on the village alone for their material but have to travel to different market places to procure it. Fifteen years ago, when coir making was just beginning to be adopted by some poor peasants, coconut husks used to be thrown away, now they are sold for a quarter of a taka. Next to paddy, coconut is perhaps the most treasured produce. A mature coconut tree produces about a hundred coconuts every year in two crops, provided the trees are cleaned twice a year and well looked after. However, villagers are seen in increasing numbers carrying daabs in hundreds on their bicycles¹ to Phultala Bazaar, the nearest market some six miles from the village. This market has metalled road-links to the city, and here the villagers sell daabs to the traders, who sell them to retailers in the city for consumption by middle class city dwellers. It is a status symbol to drink daab-water in the cities. A daab costs about 50 paisa in the village, one taka in Khulna city and about Tk 1.75 in Dacca. A coconut sells for about Tk 1.00 in the village, Tk 1.25 in Phultala Bazaar, Tk 1.75 in Khulna and Tk 2.50 in Dacca. Coconut is not an essential commodity and therefore the demand is limited, consequently it is mostly used for making oil. Oil pressing, has moved from the village to places such as Phultala Bazaar, where machinery has taken over from the bullock power used in traditional oil-presses.

Economics of Coir-Making

A single coconut husk costs 25 paisa in the village, one hundred cost Tk 22.00 and a thousand which can be procured only from the Phultala Bazaar, cost between Tk 180 and

1. They tie daabs in pairs and hang them on the crossbar, pushing the bicycle instead of peddling it.

Tk 190 depending on the size and quality of the coconut husks. Twenty husks, costing Tk 5.00 at the local market, produces two pounds of coir at the end of one labour day and sells on an average for Tk 12.00. In Jamira Bazaar, however, two pounds of coir sell for only Tk 10.00.

As previously stated, whole families can participate in the production process and at least three people are needed in the final phase of making the finished goods. Therefore it is difficult to quantify the amount of labour that actually goes into making two pounds of finished product. It seems that the profit margin for 2 pounds of finished coir-string is Tk 5.00 if sold in Jamira Bazaar and Tk 7.00 if sold in Phultala Bazaar. Most peasants therefore, go to the Phultala Bazaar once a week when they will probably have made some 10 or 12 pounds of finished coir-string. On their way home from Phultala, they buy coconut husks and other necessary industrial products that they need for consumption such as ; kerosene, soap, matches and most important clothing for the family. These commodities are cheaper in Phultala being closer and more easily accessible to Khulna, than Jamira Bazaar. In fact except for paddy, which is marketed by small farmers in small quantities following the harvest, almost everything else, coconut, betel-nut (which grows abundantly), vegetables, gur (date-palm molasses) daab and most important of all, coir are carried to Phultala Bazaar for a better price with the added benefit of obtaining industrial produce for consumption at a lower price. This not only prevents surplus drain from the village, but also strengthens the position of the poorer sections of the peasantry against the forces of polarisation.

Thus it seems that in Jamira two factors, the ecologically based diversification of the region, and accessibility to the market, have played a very important part in the lives of the villagers. The average family in Jamira has 5.2



Plate 9. Road link between Jamira and Phultala/Naopara.



Plate 10. Small producers carrying their produce to the market in Phultala/Naopara.



Plate 11. 'Van' - the most common form of transport between Jamira and Phultala/Noapara.



Plates 12, 13 & 14. 3 stages of coir manufacturing.

members and 176 acres of farm area although according to the national average they need at least 2.5 acres of land for subsistence. That the village has managed to support 3850 persons to the square mile and that it in fact seems to be generally less polarised than the southern villages is, one could argue, principally due to these two factors.

There is little in the literature which describes the process whereby the ecological diversity of a region provides the basis for non-agricultural or agriculture connected employment for the poorer peasants and how this additional income source ultimately restricts the forces of differentiation in the region of ecological diversity. With regard to accessibility, the usual assumption as seen in the literature is that commercialisation or penetration by the market economy leads to increased polarisation (Lenin:1964:71-90; Shanin:1972:109-119). In Jamira, however, it appears that proximity to market has enabled very small producers of what agricultural or non-agricultural commodities there are, to come into direct contact with the market. This has prevented the emergence of traders in local produce as a specialised activity and thus has served as a check on polarisation in so far as trading factors are a very important source of polarisation. In the southern villages on the other hand, limited accessibility has given rise to funnelled commercialisation depriving the poor peasants of the possibility of by-passing the trading class and obtaining a higher price from marketing their produce. This creates the opportunity for outsiders to step in as traders and to siphon off the village surplus which in turn weakens the poorer classes and helps accelerate the pauperisation process. This point of proximity to market, in other words, market accessibility and its effect on polarisation and differentiation will be elaborated later.

Section III

The Market

There are two sub-sections here. (1) The Bazaar, which is the market centre, and (2) The Labour Market. The first describes the centre itself, focusing on what happens on a haat-bar, the day of the week when the bazaar sits, and analyses some of the forms in which exchange takes place and the surplus of the village is siphoned off. The Labour Market, on the other hand, looks not only into the different types of labour and forms of payment but also at how labour use is mediated by the ecology of the region.

1. The Bazaar

The Bajua Bazaar is a conglomerate of some three hundred stalls. Most of them stand on four bamboo posts and are left unoccupied for six days a week until the haat-bar when sellers from different parts of the region flock in, in their 'thousand boats' as O'Malley has described it, with whatever agricultural and non-agricultural produce they have to sell or exchange. There is the poor peasant who is trying to sell a small basketful of sweet potatoes or perhaps a chicken in order to buy wheat, as well as the surplus farmer who is trying to get a higher price for his grain surplus from the urban trader; there are in addition, hundreds of retailers, small and large, trying to earn either a living or large profits.

Most villages have a bazaar with its grocery shop, barber shop, tailor shop, sweet shop, a self-styled chemist selling aspirins and entero-viaform tablets and perhaps a post office. Most villages have a haat-bar, when buyers



Plate 7. Bajuna bazaar - paddy market.

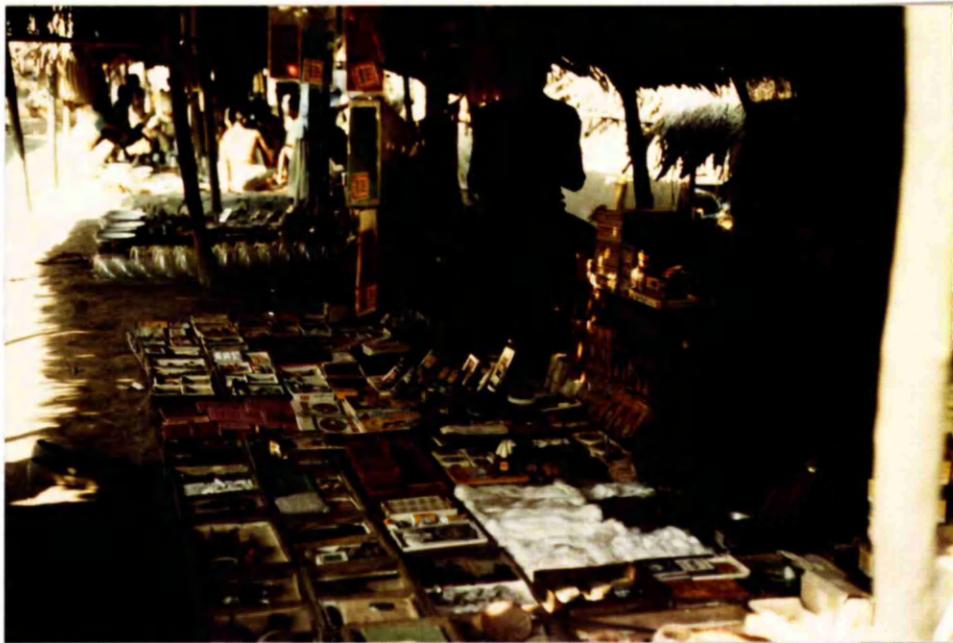


Plate 8. Bajuna bazaar - general stall.

and sellers from the adjacent villages meet and the actual exchange takes place, but the haat-bar in Bajua is quite different, being the largest bazaar in the area.

This is the day when the surplus of the village is siphoned off in terms of food and cash crops. In the middle of June (1977) which is half-way between harvests, our survey showed over 206 maunds of paddy being sold to traders at between Tk 82.00 and Tk 85.00 per maund. The comparative figure for Jamira was 15 maunds selling at Tk 90.00 per maund. Haat-tax in Tk 2.00 per maund in Bajua and 50 paisa per maund in Jamira. The tax is extracted by the agents of the lessee of the haat (bazaar ground) who is virtually free to impose any rate that he feels he can get away with without serious protest from the villagers. The haat is leased, as are the canals and rivers, to the highest bidder by the Government. Thus, the surplus labour of the wage earner and the share-cropper in agriculture is shared between the landowner who appropriates the bulk of the surplus; the Government in terms of bidding price for the lease of the bazaar which enables the lessor to extract a higher profit from the buyers and sellers in the bazaar; and the trader who keeps the margin between the rate he pays to the surplus farmer and the rate he obtains from the urban traders and thereafter by various middlemen up to the retailer who ultimately sells to the urban consumers. The rate to the consumer is the actual market price of the labour process of production.

One interesting feature of the market is the cattle market. On the three consecutive haat-bars during which the haat was surveyed, an average of 220 cattle, mostly bullocks, were brought in two-thirds were sold by the end of the day. Haat-tax extraction appeared to be highest in the cattle

market, the rate being 6.25 per cent and 4 per cent of the price respectively from the personal buyers and the professional buyers. Some were selling their bullocks to buy buffaloes so that it would be easier to cultivate as the land was getting harder following the erection of the embankment. The price of buffaloes was about four times the price of a bullock and obviously the buyers were surplus farmers. There were others who bought in order to accumulate and then to deal for profit. This was a new trend which started following the embankment. "Now that we have grass for a greater part of the year when we are not growing a crop, naturally the cattle get good feed and breed regularly", I was told by the villagers. This was not possible before the embankment was erected as the fields used to be flooded with saline water. The villagers added, that "before the cows gave birth every two years because they did not get enough food, but now they get plenty and breed every year".

Jamira bazaar is much smaller about one-quarter the size of Bajua bazaar but the haat sits twice every week. There are about 250 bamboo stalls but unlike Bajua, there are some good stores selling everything from groceries to saris. There are as many as five dispensaries supervised by self-styled village doctors and purveying homeopathic and allopathic medicines. This, however, reflects more than competition for the village market; it gives an impression of the general ill-health of the villagers. The typical complaints are tummy ache, heart-burn and fever. The temporary cures range from aspros to antibiotics according to the quack doctor's prescription.

Bajua is much better off in this respect. There is a clinic run by Save the Children Fund which is open twice a week. They do not prescribe anything more useful than the ordinary

analgesic tablets and sulphur drugs but at least they tell the patient what is wrong with him and where to go for further treatment. The patients here are charged Tk 1.00 towards the medicine.

2. The Labour Market

The traditional monsoon rice technology is dependent mainly on timing, depth and distribution of rainfall which in turn determine such operations of cultivation as sowing, transplanting, weeding and finally harvesting. These operations force even some of the small farmers who are otherwise unemployed or under-employed, to hire casual workers for at least a few days of the year to meet the compulsions of monsoon rice technology. It is therefore quite common to find small farmers who would normally hire themselves out, hiring-in labour at peak periods. The amount of casual wage labour use and to a lesser extent the number of days for which such use is required is, however, a function of the size of farm, the quality of the soil and the number of permanent workers who include both family and hired labourers on the farm.

The other operations, especially putting up or repairing field-bunds, levelling land, threshing and to some extent ploughing¹ are functions which are relatively independent of ecological constraints. Consequently, the farmer can do most of these himself - unless restricted by health or reasons of family status - over a period of time without being compelled to hire labour to complete an operation within a given period. The large farmers

1. To the extent ploughing cannot be started until after the first rain, it is dependent on ecology.

for this sort of operation, generally engage permanent workers otherwise known as 'attached workers' who are hired for a fixed period of time, usually for six months or a year after which the term may be renewed.

Thus, broadly, there are three different kinds of labour: family labour, mostly used by the small and middle peasants; casual wage-labour, hired by most of the family farms and managerial farms on a daily basis; and finally, attached wage labour which is hired mostly by the surplus farmers on a semi-permanent basis. However, in the south, contract wage labour may be further divided into two types: those who are hired on a yearly or six monthly basis and who do a variety of work for the employer in addition to normal field work, and those who are hired during the peak season usually more in terms of weeks rather than months and who work exclusively in the fields in the production process. This latter category mostly consists of immigrant labourers who flock to the south periodically having done their own production work in the north of the district or in the adjacent northern districts. This migration is made possible by the difference in the timing of peak periods at different phases of production such as transplanting, weeding, and harvesting, between the northern and the southern regions.

Following family labour-use, casual wage-labour use, is most widespread in the northern village, Jamira. In the south however, contract (short-term, migratory) labour use is more widespread than casual labour use. This is for two reasons; firstly, although the proportion of landless peasants is highest in Bajua, a significant percentage are absorbed in occupations other than agriculture, and secondly, the remaining landless peasants

themselves work more often as short-term contract labour than casual labour during the peak periods in order to avoid competition from the influx of immigrant labourers and the consequent depression in wage rate and/or unemployment during this period.

At the beginning of May the immigrant labourers start coming in and by the middle of the month their numbers have risen significantly in the bazaar where they hire themselves out. However, they show some reluctance to be hired for more than a couple of weeks during these early weeks of May as they want to be free to secure the best possible price from the market by the end of May when hardly three weeks are left before transplanting must be completed and the demand for labour will easily surpass supply and farmers in their panic will yield to the bargaining powers of the wage labourers. During the final peak weeks more than 500 wage labourers meet in the bazaar every haat-bar to hire their labour out and wage rates shoot up from Tk 15.00 to Tk 90.00 per week plus meals and tobacco. The rate, however, varies depending on which village the labourer is hired for. For a village which is naturally flooded and not embanked, the rate is lower; for embanked villages, Bajua, for example, the rate is significantly higher as the soil is harder and transplanting is more difficult.¹ On the other hand, transplanting is easier and faster in a naturally flooded and silted village.

That the degree and type of labour use is significantly determined by the ecology of the region is clearly

1. On some land, to transplant each seedling involves hammering a wooden spike into the ground.

Table : 3.3.1

COST OF PRODUCTION AND LABOUR USE (Per Acre)

	BAJUA			BIDDYA			JAMIRA		
	Average Labour required (man-days)	Average cost per man-day (Taka)	Total cost (Taka)	Average Labour required (man-days)	Average cost per man-day (Taka)	Total cost	Average Labour required (man-days)	Average cost per man-day (Taka)	Total cost (Taka)
Ploughing ¹	9	10	90	6	10	60	10	7	70
Transplanting	8	12	96	6	8	48	usually not done		
Weeding	9	8	72	generally unnecessary			22	9	198
Harvesting ²	10	*	54	12	*	89	12	10	120
Threshing ³	8	9	72	8	9	72	18	7	72
Total	44	39	384	32	27	269	52	33	460

Notes : 1. Ploughing : includes all kinds Land preparation up to the point of transplantation. In Jamira, the Labour use includes sowing as well.

2. Harvesting : in Bajua and Biddya this is done generally by immigrant labour contracted at a wage of 6% of the produce; total cost of labour has been arrived at by working out the market price of 6% of the average yield per acre (12 maunds and 20 maunds respectively for Bajua and Biddya) at the Government procurement price at the time of harvest (Tk.74 in 1977).

3. Threshing : the same value for labour use for average yield per acre in the three villages is due to different techniques of threshing.

* Not applicable.

Source : Field Work 1976-77

demonstrated in Table 3.3.1. This table shows that average labour use varies from 32 man-days in Biddya to 52 man-days in Jamira with Bajua at 44 man-days per acre of land. The corresponding costs of production per acre are Tk 269, Tk 384 and Tk 460 respectively for Biddya, Bajua and Jamira.

Although open labour markets similar to the one in Bajua are common in the major bazaars such as Noapara, Shahpur and Phultala in the north of the district, such markets are considerably smaller and the basis for hiring is different. The average holding size being considerably smaller, more labour is hired on a casual basis rather than on a contract basis. This means that there is greater competition for jobs among the labourers which naturally depresses the wage rate. In Jamira, which is extremely densely populated and landholding size is very small, there is no such labour market. Hired labour is taken only on a casual basis and the landless labourers who hire themselves out during the peak season are contracted beforehand by the landowners. The practice of swapping family labour, commonly known as bodly or baegar kishen is widespread. During the height of the peak season of, say, harvesting this cannot be done as each household is usually occupied with their own harvest work and therefore labour has to be hired. Labour rates, however, do not vary significantly and remain usually between Tk 6.00 and Tk 8.00 per day plus a meal. Sometimes, of course, the option is given of accepting an additional Tk 2.00 in lieu of the meal. Although a peasant is said to eat much more food than could be bought with Tk 2.00, in such cases, the peasant chooses to take the extra money. The logic of this, I am told, is that with Tk 2.00 he can buy about 3 pounds of wheat flour which would be enough to support a family of five for a day, depending on how

it is prepared.¹

Thus the ecology of traditional monsoon rice technology by determining the time and extent of certain production functions, controls the degree of different kinds of labour used (casual wage, contract wage and family labour), labour movement and wage rate. Labour mobility, however, is itself made possible by the difference in the timing of some of these production functions between regions. The other obvious factors affecting labour use are farm size, population density and soil type.

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1. Common practice among the landless and some poor peasants is, instead of making bread, to stir a quantity of wheat flour into boiling water which helps to see them through a longer period.

Section IV

The Politics of Power

It is possible to trace three major sources of power in the three villages : (1) Power by means of control of land, (2) State Power and (3) Institutional Power.

1. Land-based Power

By controlling the means of production the rich farmers, whether landlords primarily renting-out to share-croppers or capitalist farmers producing by hiring wage labour, are in a position to control the labour market in the villages.¹ The share-croppers are dependent on their landlords for access to land unless of course the landlord is a poor peasant who is renting out all his land either because his holding is too small to justify cultivation and/or because he wants to free himself for other, more financially rewarding occupations.² Similarly wage labourers are especially dependent for their employment on the capitalist farmers who are the principal hirers of labour.

The relation of dependence is also established through a separate function of the differential access to land, in terms of the money lending relation. In so far as the money lenders are the rich farmers themselves, their power is a direct function of their greater access to land. A fourth form of dependence can be traced in the trading relation but this depends on the kind of accessibility the village has to the (national) market. Where accessibility is restricted and only the large traders are in a position to arrange the transfer of village surplus to the market, the poor peasants who must sell

1. Of the two methods of production - through wage labour use and through share-cropping, whether or not either form affords greater power to the landlord is discussed in chapter 4, section III.

2. This is in fact, quite common especially in the northern village where average holding size is very small, see Table 3.1.5 and Map 3.1.5.

in small quantities are dependent on the big traders. To the extent, again, that the rich farmers have themselves gone into trading, their power is substantially increased. This is often the case in Bajua and Biddya. In Jamira, however, the market is easily accessible to the village and the small peasants are themselves able to take whatever agricultural or non-agricultural produce they have to sell, to the market without having to go through the traders.

The structure of dependence and servility is particularly manifest in the two southern villages, Bajua and Biddya, where both share-cropping for the largely absentee landlords and contract labour use¹ are widespread. This sense of dependence and servility may be expressed in different ways. Free labour and political support for the landowner, or for that matter, the employer are two of the many ways such dependence is demonstrated.²

Table 3.4.1 shows that in all the three villages the better off farmers dominate the Union Parishad (UP), the elected local Council.³ In these 12 member Councils,

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1. Contract labourers are usually paid in kind which restricts market involvement and therefore capitalism. For data on cash and kind payment for wage labour, see Table 5.3.3., Chapter 5.
 2. For details of free labour given to landowners by share-croppers, see Table 5.4.8 (col.7), Chapter 5.
 3. The number of villages in a Union varies depending on the size of the village(s) but there are three Wards in each Union and three members are elected from each Ward. Every Union has an elected Chairman and two Government nominated women members. The Chairman gets a remuneration of Tk 300 and the members Tk 100 per month. The election of the Union Parishad is held, or supposed to be held every 5 years.

Table 3.4.1

ECONOMIC AND POLITICAL BACKGROUND OF UNION PARISHAD MEMBERS

	Total	Landless	Poor	Subsistence	Self-sufficient	Surplus	Rich
<u>BAJUA</u>							
Awami League	5	-	-	-	4	1	-
Muslim League	2	-	-	-	-	1	1**
National Awami Party	-	-	-	-	-	-	-
Patyo Samajtantrik Dal	1	-	-	1	-	-	-
Independent	4	2*	2	-	-	-	-
All Parties	12	2	2	1	4	2	1
<u>SHIDDYA</u>							
Awami League	5	-	-	-	1	3**	1
Muslim League	3	-	-	-	-	3	-
National Awami Party	-	-	-	-	-	-	-
Patyo Samajtantrik Dal	1	-	-	1*	-	-	-
Independent	3	-	1*	1*	-	1	-
All Parties	12	-	1	2	1	7	1
<u>LAMIRA</u>							
Awami League	5	-	-	-	1	3	1
Muslim League	-	-	-	-	-	-	-
National Awami Party	2	-	2	-	-	-	-
Patyo Samajtantrik Dal	1	-	-	1	-	-	-
Independent	4	-	2*	1	1**	-	-
All Parties	12	-	4	2	2	3	1

* - Nominated Women Members
 ** - Chairman

Source : Field Work 1976-77

one member is the Chairman and 2 are nominated women members, and 7, 9 and 6 members respectively from Bajua Bidhya and Jamira come from the self-sufficient classes and above.¹

Table 3.4.2 demonstrates that of these members the rich and the surplus farmers in all the three villages overwhelmingly use wage labour. Although no clear pattern emerges from their land renting behaviour, it is clear that in the two southern villages, especially in Bidhya, rent relation is quite important to these members.

Although I do not have data on the voting behaviour of the wage labourers and the share-croppers, it would not be unjustified to assume that the element of dependence of the employee on the employer in a labour surplus economy and of the share-cropper on the landowner in a land shortage situation, has contributed significantly to the election of members from the better off classes who now dominate in the Parishad.

2. State Power

This is manifested primarily through the functions of the Union Parishad, the police and the leaseholders of the haat.

The Union Parishad has the power to take decisions in local affairs, to execute the decisions of State officials, to mediate in disputes, to distribute grain if this is available from the Government, to organise Food for Work Programmes and to liaise with the Government in any matter.

1. Although Table 3.4.1 details the relationship between the political party affiliation and the economic background of the Council members, it is not directly relevant to this discussion. The structure and class base of the major political parties is discussed in Chapter 1, Section II.3.

Table 3.4.2

WAGE LABOUR & SHARE CROPPING CHARACTERISTICS OF UNION PARISHAD MEMBERS

CHAIRMAN	MEMBERS							Self-Sufficient				
	Rich		Surplus									
	1	1	2	3	4	5	6	7	1	2	3	4
100	-	97.0	66.2	-	-	-	-	-	41.3	39.9	51.8	
19.8	-	9.8	6.9	-	-	-	-	-	-2.3	-	58.3	
97.3	78.6	86.6	81.0	69.0	43.4	57.5	79.2	-	58.2	-	-	
39.1	27.4	-9.8	21.2	13.9	-11.1	16.6	19.3	-	9.9	-	-	
38.7	79.0	88.0	69.9	71.8	-	-	-	-	30.7	-	-	
-	9.8	11.3	-	-	-	-	-	-	-	-	-	

Source : Field Work 1976/77 *balance of crop-share paid and received

BAJUA
Wage Labour use as a percentage of total Labour
100
Share-cropping Net share* received (+) or paid (-) as a percentage of disposable paddy
19.8

BIDDYA
Wage Labour use as a percentage of total Labour
97.3
Share-cropping Net share* received (+) or paid (-) as a percentage of disposable paddy
39.1

JAMIRA
Wage Labour use as a percentage of total Labour
38.7
Share-cropping Net share* received (+) or paid (-) as a percentage of disposable paddy
-

Thus it is not the remuneration that attracts people to contest the election but the prospect of benefits at each level of their operation that draws them into politics. In 1977, for instance, most of a truck load of Government rice to be distributed among the poor peasants in Jamira, was sold on the black-market and the proceeds shared among the UP members and the Chairman.¹

As shown in table 3.4.1, the better-off peasants dominate the UP in all three villages. Their membership of the Parishad strengthens and institutionalises their power base as the hirers of labour and renters-out of land. "Their power lies" explained the Imam of the village mosque, "on the one hand in the fact that they are elected members, and on the other in the assumption that anything they do has the sanction of the State."

The power of the police, on the other hand, lies not in their responsibility in enforcing law and order in the villages but in their ability to create conditions for extracting surplus from the middle peasants who are neither too poor, nor influential enough to be able to stand up to the police. The police have, in practice, the power to arrest anybody at any time without having to give any reason let alone have a warrant from the Court, and to keep him in their custody for any length of time.

The type and degree of their operations vary depending on the potential of the area. For instance, in the south the police were alleged to have helped black-marketeers

1. Only some 30 families were given any rice and then no more than 2 pounds per family.

and UP members in unloading imported grain from Government barges in transit from Chalna Port to Khulna. When this was reported the police rounded up half a dozen landless labourers and charged them with allegedly working for a 'notorious gang' and transferring a few tons of Government rice in the middle of the night. A few bags of wheat were stacked in front of the Chief Officer's room and confessions were obtained to the effect that the peasants had been caught 'red-handed'.¹ Once the defenceless peasants are in police custody, confessions are obtained easily by promises of release or torture.

In the northern village, Jamira, the police picked up one member of a notorious gang in 1975 and made him turn approver. This man gave names to the police alleging that they were his 'mates'. The names were in fact all of respectable middle peasants with no criminal records but the police picked them up one by one and made them pay to be released. Three of these peasants had to sell their land in order to have themselves set free. Two members of the Union were the go-betweens who negotiated the sum of the bribe for their release and are said to have had their share in the deal.²

The link between the police and the UP members is crucial to both. The police need the support of the Union Parishad in their strategy of extracting money from the villagers, and the UP members need the police to condone their appropriation of Government aid and other benefits.

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1. Interviewing local people revealed that at least 4 out of these six people worked the day before in the fields and were in their houses asleep throughout the night.
 2. Having learnt this I reported the matter to the higher authorities who said that this was not uncommon and assured me that, should they be innocent they would be released. The innocent peasants were finally released in March 1978.

Thus, in land based power the big farmers through the instruments of rent relations, wage-labour relations , usury and trade relations tie the poorer sections of the peasantry into a structure of dependence and servility and through these relations control the local council. This not only strengthens the basis of their power but also draws them closer to the different organs of power such as the police and the bureaucracy. The ultimate power of the rich farmers is seen in the alliances that emerge from interactions between themselves, the police and the bureaucracy. The ecological basis of this power structure lies in the fact that the big farmers in the south are not the product of a natural process of polarisation over the years but a direct result of the settlement schemes which were dictated largely by the ecology of the Sundarbans.

3. Institutional Power

This is, in a way, restricted to Bajua, one of the southern villages, and the elements here are the fish factory, the bank and the cooperative organisation called the Christian Service Society (CSS).

The power of the fish factory management rests on its ability to offer or terminate employment in the factory. The factory employs, as mentioned previously, over 300 workers from the village mostly unskilled labourers. There is no union to look after the interests of the workers and their wage rate has not increased in the past three years (1974-1977). These workers are employed for most of the year in the factory and naturally they owe allegiance to the management especially since there is no worker's union. It was not possible to interview all the workers individually but a few did claim that the subject of who they might vote for had been discussed but casually. This is not to suggest that there was some alliance between the management and a particular candidate, but one could say that an interested party might make use of the situation, in which case the management would wield considerable power.

The bank extends loans of all kinds to 'deserving' clients but most of these loans run into hundreds rather than thousands of taka. The bank's two principal clients are the fish factory and the CSS. It is this tripartite 'alliance' that forms the basis of institutional power in Bajua. The bank and the CSS both extend credit at the same interest rate but the CSS gives credit exclusively to its IRRI blocks and normally not to individuals. The point is that should the IRRI block manager fall out of favour with the CSS and decide to borrow money from the

bank he would put the bank manager in a difficult situation as he could not lend him money if this were going to make the CSS authorities unhappy. Similarly, if a landlord disagreed with the CSS and refused to rent his land out to the CSS IRRI block he could find himself in the same sort of difficulty if he were to seek a loan from the bank. After all, it is the capital of the CSS and fish factory which made this bank possible. Therefore, it is not easy, nor is it necessary for the bank to do anything that might identify it as a rival institution.

It is however, difficult to see any one component or the alliance as a whole serving the interests of the landed class especially if the interests of the latter was in conflict with the interests of any one component in the alliance. The strength of the alliance lies primarily in its ability to virtually monopolize investment and cash capital and these over-riding interests seem to be self-perpetuating as long as the three components continue to function.

Thus, it seems that of the major power bases in the three villages, land-based power, State power and institutional power, the first two are linked in that they are virtually inseparable. The institutional base on the other hand, must maintain its separation to avoid capitulation. The only broad based link that exists is perhaps that although the three sources have different levels of power they share the same class culture.

The ecological basis of the institutional power base, is difficult to see. The point is, however, that the institutional structure depends on the success of each of its components which are themselves ecologically based. The fish factory, for example, is dependent

on the availability of fish in the area and the CSS and the bank on their ability to continue to extend loans. Whether or not the CSS continues to operate depends on the success of IRRI cultivation in the area. Extension of loans against other crops would not be justified in that the low productivity of other crops does not guarantee repayment. Therefore it could be argued that the basis of these two components within the institutional power structure is ecological. As for the bank, as has been argued earlier, its viability is entirely dependent on the success of the CSS and the factory.

So far in this chapter I have outlined the ecological differences between the three villages, their demography and the agrarian structure, the occupations of the villagers, the market, particularly the labour market, and finally, the structure of power politics.

In terms of ecology, the northern village, Jamira, seems to be the most productive of the three villages. However, this does not mean that Jamira is the most fertile of the three villages. Soil fertility depends not only on average production per acre but also on factors such as labour and fertilizer inputs.

In terms of cropping pattern we have seen that while Biddya is strictly a mono-crop area producing one aman crop only, Bajua has been, at least theoretically, transformed into a multi-crop area although rice production has fallen drastically due not so much to ecology as to the disregard of the importance of ecology in the process of enforcing technological advancement; in other words, disregarding the elevation factor of the village in the construction of the embankment. The embankment has not only caused a drastic fall in production in Bajua itself, it has also

as a result of greater water pressure and over silting significantly reduced yields in Biddya. Jamira, on the other hand, produces a mixed aus-aman crop on most of its cultivated land which is low lying and there is rabi crop production, water melon, til etc. on the higher land.

The effect of this cropping pattern, especially in the two southern villages has been very significant. There has been substantial out-migration especially of the landless peasants from Biddya. It is not certain how many of these people left the village directly as a result of the fall in production but this certainly was mentioned as one of the reasons.

In Bajua, on the other hand, landlessness has increased dramatically over the past few years. The poor and even some middle peasants who have been thrown into confusion by the drastic fall in production have increasingly been seeking support from subsidiary occupations primarily from fishing and fish trading which owes much to the salinity of the area. The salinity of the region necessitated field bunds to protect the crops which in turn helped pisciculture. However, while the field bunds offer the potential for greater ecological diversification allowing villagers greater income sources, the conditions under which the field bunds are built and maintained themselves deny the people the right of fishing.

In Jamira, we have seen that most of the cultivated land is low-lying beel which does not dry up early enough to allow a winter crop. Pressure on the land is increasing rapidly, causing greater fragmentation which in turn forces more and more people to turn to coir-making. Although

coir-making is the most important single occupation especially of the landless and the poor peasants, they also produce gur, betel nut and coconut and sell them directly in Phultala or Noapara market which are directly linked to the national market. Thus Jamira offers a much greater degree of ecological diversification and unlike the southern villages the opportunities created by this which benefit especially the poorer sections of the population are not offset by other factors. This helps arrest the process of differentiation.

However, another ecological variable, accessibility to the market has a direct bearing both on ecological diversification which strengthens the position of the poorer peasantry, and other market forces leading to polarisation between the poor and the rich. This finally emerges as one of the most important findings of this study. While in the case of Bajua and Biddya their lack of accessibility to the market has caused a situation that I have called funnelled commercialisation where the small peasant is prevented from participating in the market; in Jamira, we find a situation where the relative accessibility makes it possible for the small peasants to take their commodities to the market themselves without having to go through trading intermediaries. This I have called blanket commercialisation.

I have also traced the major sources of power in these three villages as (1) land-based power, (2) State power and (3) institutional power and have explained how any one of these can affect the voting behaviour of the people. It has been argued that of the three components the first two are directly and the last indirectly affected by ecology.

The big farmers of the south who derive their power from tying the poorer peasants through the instruments of rent, wage and other relations, themselves emerged as a result of the ecological compulsions of land settlement in the south. As for State power, it has been argued that control of the organs of State power is a direct function of access to land.

Thus, at an empirical level there is evidence to suggest a broad correspondence between ecology and the way in which rural societies are structured. However, this does not explain the precise nature of the relationship between ecology and class relations in rural areas. In order to do this, it is necessary to select a set of ecological variables and a set of social variables and from these to formulate certain hypotheses which can be tested against our data. In the next section the ecological variables will be introduced. However, before the social variables can be examined and seen in relation to the ecological variables, the mechanisms of production, distribution and circulation in rural areas through which a part of the product of agriculture is appropriated from the direct producers, in other words, the relations of production must be understood. Without this it would be impossible to identify the classes which are 'related through a nexus of exploitation' and are located in different modes of production (Alavi:1973; Abdullah:1976; Djurfeldt and Lindberg:1975:118-173).

Section V

The Ecological Variables

Originally it was planned to look primarily at three ecological variables : natural soil fertility, accessibility to market and cropping pattern. However, eventually the last of these three variables had to be dropped as there was no significant difference in the cropping pattern so far as the principal crop i.e. rice, was concerned.

The second of the ecological variables, accessibility to market is measured in terms of distance, time and cost of transport to and from the market and this is shown in Table 3.5.1 which is discussed later. Real difficulty however, was encountered in trying to measure natural soil fertility. It proved impossible to isolate with any degree of statistical significance, those variables which were directly and functionally interrelated. In the event much simpler and cruder measures such as average labour productivity and average land productivity had to be adopted. The first is a measure of the units of output per man-day of labour in each village¹ and the second, the units of output per acre of land. Admittedly these have their problems as they are only partial measures that do not take into account the variation in other factors so that, for instance, where there is a difference in land productivity between two villages we cannot immediately say that this is due to any intrinsic quality of the soil. It could equally well be that more labour is used in that village and therefore more is produced per acre.

1. In fact this represents the total output for the village divided by the total labour input.

Table 3.5.1 MEASUREMENT OF ACCESSIBILITY¹

Distance to the market (miles)	Means of Transport and Time Taken		Cost of Transport ²		Volume of Trade
	Usual Time (hrs)	Quickest Time (hrs)	For large producer/traders Tk	For small producer/traders Tk	
BAJUA 32	big boats 16	motor launch 5.30	4.0	n.a.	bulk only
BIDDYA 32	big boats 16	motor launch 5.0	4.50	n.a.	bulk only
JAMIRA 6	bullock cart or van 1.30	van 1.30	nil	1.50 ³	small loads or bulk

1. all figures are approximate
2. per maund
3. passenger plus his load

Source : Field Work 1976/77

In Table 3.5.2 we see that Jamira has the highest land productivity, followed by Biddya, then Bajua (col.4). This table also shows that Jamira has the second lowest labour productivity so that one might argue that the high land productivity in Jamira is due to a high labour input. The same however, would not hold for Bajua where labour input per unit of produce is also very high - higher than Jamira in fact because the labour productivity coefficient is only .31 compared to .37 in Jamira (col.3) - but land productivity is the lowest of the three villages at only 10.2 maunds per acre. Given the observed similarity in agronomical practices between the three villages, differences¹ in land and labour productivity figures are almost certain to be due to basic soil properties.

In addition, I have used, as a measure of the pressure on land, a composite index of what I have called 'land in efficiency units' per household. If the amount of land available per household was calculated this alone would not give any real idea of the pressure on land. Clearly, if for instance, in one area each household has, say 2 acres of land, and in another each household also has 2 acres of land but in the first village the land is twice as productive, then in fact the pressure is twice as high in the second village. Thus, what actually matters is not so much the extent of the land as how much produce it will give. Land in efficiency units therefore is calculated by multiplying the average land per household in each village by an index of land productivity. For this index Bajua (the least productive village) is taken as the base i.e. land productivity of 100. The result is a single

1. The difference between the villages in land and labour productivity has been tested and found to be statistically significant. See Appendix IV.

Table : 3.5.2 ECOLOGICAL RANKING OF THE THREE VILLAGES

Pop. ¹ Density	Average ² Farm Size*	Labour ³ Product- ivity*	Land ⁴ Product- ivity*	Accessi- bility ⁵	Land in Efficiency Units *	Extent of Diversifi- cation	ER**
							ER
BAJUA 1159	2.36	1	.31	3	10.20	low	2
BIDDYA 897	2.30	1	.76	2	14.96	low	2
JAMIRA 3850	1.54	2	.37	1	22.30	high	1

* Where villages are ranked separately, the difference between them is significant at the 95% level of confidence. For statistical details, see Appendix

** Ecological Ranking.

1. Population density per square mile based on 100% census.

2. In acres.

3. Labour productivity is the average production of rice in maunds per man-day.

4. Land productivity is the average production of rice in maunds per acre of land.

5. See Table 3.5.1

For Land in Efficiency Units and Extent of Diversification, see pp. 202 - 207

Source Field Work 1976-77

measure incorporating both land available and land productivity per household.

On the basis of this composite index of the pressure on land of the three villages, Bajua ranks lowest at 2.36 acres per household; Jamira second at 3.36 acres and Biddya highest but only marginally higher than Jamira at 3.37 acres of land in efficiency units per household.

As regards accessibility, it can be seen from Table 3.5.1 that Bajua and Biddya are almost equally accessible or more appropriately inaccessible to the market and they are both less accessible than Jamira which is very close to two large and important centres connected to the national market.¹ Bajua and Biddya are both relatively distant from a market although Bajua has a local haat of some importance. Therefore, in Table 3.5.2 they are ordered as : Jamira, high accessibility; Bajua and Biddya, low accessibility.

In the final analysis I have added another variable and have called it 'ecologically based diversification'. This variable is not so much agricultural as horticultural or perhaps one might say an agriculture connected non-agricultural activity which may be made possible or impossible as the case may be by ecological factors (Table 3.5.2; col.7).

While Biddya and Bajua are almost entirely mono-cropped areas, Jamira, although mono-cropped from the rice crop point of view, does have certain other commercially valuable products such as coconuts, date-palm especially its juice which is made into gur and chewing nuts.

1. The two market centres are Phultala and Noapara, which are 6 and 7 miles respectively from the village.

Coconuts are, of course, the most valuable. They sell as daabs as well as narkel. In the latter case, the coconut flesh is removed, dried and processed into oil and the husk is made into coir which is in fact the primary raw material for a very important domestic industry in Jamira.

In this sense of diversification there seems to be some ecological constraint in the other two villages largely due to the very high salinity of the water for the greater of the year. The fish factory in Bajua, however, provides employment which could in fact be expanded because of the increasing demand for fish abroad. Fishing, as described earlier is a source of income for independent, poor and landless peasants who fish, and sell their catch to the factory. This might be described as a source of income which has a moderate degree of dynamism. This of course, could be said to be due to ecology only in so far as the location of the factory is dictated by the availability of fish.

If therefore, we take ecologically based diversification as a variable, then we can say that in this sense, Jamira ranks high and Bajua and Bidhya both low, there being no significant difference, in considering this variable, between the two southern villages.

Thus, our original ecological variables have been altered to (i) Land in Efficiency Units; (ii) Labour Productivity; (iii) Accessibility; and (iv) Ecologically Based Diversification.

These are the indices of ecological difference between the three villages, Jamira in the north and Bajua and Bidhya in the south. It may now be possible to ascertain whether

these variables are in some way involved in determining the differences in class structure in the three villages.

However, before this is done, in other words, before we examine how and under what circumstances ecology might affect class relations, it is in order to examine the objective of this study in the broader context of the man-nature relationship.

CHAPTER 4

ECOLOGY AND RURAL CLASS STRUCTURE : SOME THEORETICAL ISSUES

Section I

Major Concepts and Themes of Ecology

The question of man's relationship with nature, or more specifically the influence of the environment or the natural setting of a habitat on social life, has been a question that has exercised some of the great minds of the social sciences. These have included biologists, geographers, ecologists and most of all social anthropologists. Some, especially the geographical determinists, have been rightly, if more ruthlessly than is strictly necessary, discredited, while others who in fact have not committed themselves one way or the other seem to have survived.

They have broadly put the question in terms of nature and culture, or human society in general in its natural setting in the environment. In the first part of this chapter I shall discuss their approach to the notion of society in relation to environment and follow this by an analysis of some of the well-known and widely taught approaches by various eminent non-Marxist scholars. Finally, I shall present an alternative option in terms of the Marxist conceptualization of society.

1. The Importance of the Ecological Approach

While at the present time the discussion relating to the importance of nature, environment and more specifically, ecology has died down somewhat, the presumption seems to be that it is settled though one does not quite know in

what direction. However, many social scientists, especially social and economic anthropologists, implicitly assume that eco-system variables are of really fundamental importance.

Thus, Nicholas states

the chief value of an ecological approach in the analysis of village life in the Bengal delta is that it takes the investigation beneath some of the processes of migration, settlement and village formation to underlying causes ... Migration, settlement and village formation are 'processes' - ordered, repetitive actions of human groups deriving their livelihoods from particular natural environments (Nicholas, R.:1962:4).

Nicholas makes what is essentially a comparative and contrastive study of two villages located in two different ecological zones of the Bengal delta and tries to determine patterns of social life attributable to the environment by holding what he calls the 'technological-economic component' of ecology constant.

Similarly, Bertocci, following Nicholas and Geertz, attempts to show a postulated relationship between the elaboration of social structure - class and power relations - and an ecologically adaptive mode of subsistence. The relationship between a population of a certain size and density, its productive technology and a monsoon climate in a deltaic terrain is seen by Bertocci as a constraining, not a determining factor.

The diachronic interaction of population, environment and technology [in the villages studied] have contributed to an economy of scarcity which has had a primordial influence on the pattern and quality of social life in these villages. Firstly, the relative recency of settlement and a limited range of variation in the size of land-holding have resulted in surprisingly little differentiated occupational structure in the villages. Secondly, this occupational pattern has been maintained and in turn affects the pattern of social stratification in that population densities

have affected land ownership and thus the accumulation of wealth; and finally, competition for land has rendered conflict endemic to the area (Bertocci:1970:37).

In the Soviet Union, Shanin suggests that the impact of natural factors reinforced by a relative rigidity in crop rotation (which itself may be due to ecology) make for 'bad' and 'good' agricultural years (Shanin:1972:112). Thus for any serious study, a budget for example, representative samples are drawn from the main agricultural regions which are : (i) the Grain-Deficit Zone, (ii) the Grain Surplus Zone, and (iii) the North Caucasus (Ibid:113). 'The considerable social and economic differences between the various regions of rural Russia were the consequences of vastly different geographical situations and diverse histories' (Ibid:122).

Many social science scholars especially in rural study programmes in the LDCs, instead of taking a village from every administrative unit or as a random special unit, have emphasised the need for studying representative villages from different ecological settings without questioning their criteria for doing so. This shows that their validity is taken to be self-evident and that these researchers have accepted the hypothesis that the eco-system is a major determining variable in the social system of a village.

2. Concepts of Ecology

The study of the ecosystem is the explicit elucidation of the structure and functions of a community and its environment with the ultimate aim of the quantification of the links between the components (Stoddart:1965; Ackerman:1963; Hall and Fagen:1956). In other words, a study of environmental relationships.

Man continually finds himself in situations where a number of different choices or strategies may be available to wrest a living from his environment. One way would be to alter or change the environment to meet his needs. The degree of change is related to the degree of technological development and manpower mobilisation. The former (technology) and in some cases the latter (mobilisation) however, themselves initially depend on environment.

The widespread interest in ecology not only in the field of geography but throughout the social sciences has been encouraged ever since Tansely introduced the term in the thirties¹ by the flexibility and elasticity of the definition of the term.² Although it is not necessary to go into this, it should be noted that the difference between a sociological approach - the study of the spatial and temporal relations of human beings as affected by environmental forces (Park:1936; Mckenzie:1926; Hawley:1950) an anthropological approach - the processes by which society adapts to its 'local' environment (Steward:1955); and an (eco) systems approach in which it is defined as the study of man living in and interacting with his environment (Fosberg:1963; English and Mayfield:1972) must be arbitrary.

But whichever way ecosystems is defined, points of contact between man and environment, interactions between cultural systems and their surroundings have stubbornly remained at the centre of the ecological discipline. By extension, similar definitions of ecology find a place in the literature of anthropology, psychology, political science

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1. Tansely, A.G.:1935:"The Use and Abuse of Vegetational Concepts in Terms", Ecology, Vol.16 (1935) pp.284-307.
 2. See Steward:1955; Ackerman:1936;also Sprout,H. and M.:1965 for an excellent survey of the literature on ecological studies. The Ecological Perspective on Human Affairs, Princeton, Princeton University Press, 1965.

and geography. In geography, there have been two major thrusts, one towards cultural ecology and the other towards ecosystems.

Ecology explained away from its biological connotations (living organisms etc.) and seen more in the context of man and his environment, must involve the study of all the dynamics of human environmental interactions and there is no need to segregate these. Ideally, the entire range of social and natural phenomena are comprehended in a single eco-system, thus disposing of the artificial separation of man and nature.

In the absence of a broad theoretical framework, however, it seems understandably to have been extremely difficult for most cultural ecologists, ecosystem analysts and indeed anthropologists to handle this mass of material. Consequently they have concentrated on explaining specific forms and sets of relationships with the intent of expanding the investigations in other components and ultimately gaining insight into the total man-environment system. As a result most of these studies tend to stress process, to articulate what is happening in a system, rather than its content or more appropriately its internal structure. Consequently theory building has become difficult.

In the following pages I shall discuss the works of some of these scholars in the context of the man-environment relationship emphasising specific correspondence between, for example, the distribution of ethnic groups and 'specific ecologic niches' (Barth:1956), diversity of environment and trading specialization (Flannery:1965), land-use and family structure (Sahlins:1957) and population pressure and agricultural pattern (Dumond:1961; Geertz:1963; Boserup:1970).

I shall however, begin by expounding the position of Julian Steward one of the best known exponents of cultural ecology, with regard to the man-nature interaction.

Since cultural ecology is not generally understood it is necessary to begin by showing wherein it differs from other concepts of ecology and then to demonstrate how it must supplement the usual historical approach of anthropology in order to determine the creative process involved in the adaptation of culture to its environment (Steward:1955:30).

Orthodox ecological studies have centered on the interaction of physical, biological and cultural features within a locale or unit of territory and have been essentially descriptive. While biological ecology emphasizes the interaction within the community of plants and animals in a given environment, social or human ecology focuses on the human community as the unit of study. If therefore, the nature of human communities is the object of social or human ecology elucidation will be possible by means of cultural historical concepts. Steward maintains however, that historical methods alone are inadequate.

Cultural ecology, for Steward, differs from human and social ecology in seeking to explain the origin of particular cultural features and patterns which characterize different areas rather than in deriving general principles applicable to any cultural-environmental situation. It differs from the relativistic and neo-evolutionist conceptions of culture history in that it introduces the local environment as an 'extra-cultural' factor.

Thus reacting to the emphasis which other scholars have placed on specific cultural histories or unique cultural patterns as explanation for the origin of cultural features and cultural change, Steward stresses the processes of

adaptation to local environments as a source of change in social institutions and human behaviour. But he is not an environmental determinist. For him man by virtue of his cultural capacities is a causative agent in environmental change. But no broad generalisations can be made concerning man-nature relationship; detailed specific investigation of these interactions must be the basis for theory building. Thus cultural ecology presents both a problem and a method. The problem is to ascertain whether the adjustment of a human society to the environment requires a particular mode of behaviour or whether it permits a certain range of possible behaviour patterns. Steward's 'methods', of cultural ecology stresses the analysis of the relationships between the environment and exploitative technology, those patterns of human behaviour involved in environmental exploitation, and the relationships between these behavioural patterns and other aspects of culture. By his limited definition of what he calls the 'culture core', by which he refers to that part of culture 'closely related to subsistence activities and economic arrangements', denoting the rest of the culture as 'secondary', indeterminedly determined by random innovations or by diffusions (Ibid:37), Steward avoids the gross generalizations that previously placed similar research in disrepute.

As for ecosystems analyses, Stoddart suggests four advantages: (1) they treat man and environment within a single framework; (2) they are structured in a rational way; (3) they analyse the functioning of systems, not simply their form; and (4) they are a special type of general systems with all that implies (Stoddart:1965). Stoddart's suggestions however, remain rather general. Consequently, despite the wide applicability of the ecosystem approach to topics of geographical concern there have been few specific studies which can be said to have demonstrated its poten-

tiality. One exception is Clifford Geertz, whose work is discussed below.

Some of the better known geographers such as Huntington and Semple who suggested that environment had a causative influence on the evolution of human civilizations, have been discredited as 'environmental determinists'.¹ Their critics, believe that the role of environment in influencing human behaviour is prohibitive and permissive but not creative. It allows man to carry on some kinds of activities and prevents others (compare with Hawley:1950; Forde:1949; Bates:1953). Here, in common with the work of other human ecologists, who are for the most part more anthropologists than geographers (or ecologists), there is a characteristic emphasis on 'culture'. It is suggested that virtually everything (perhaps other than crude environment) is culture. Therefore, nothing can determine culture except culture itself. A lower level of culture through interaction, produces a higher form of culture. As for the environment, this may or may not affect culture. The important point to note here is that those who have, in fact, observed some positive correspondence between environment and culture as noted earlier, have not been discredited as environmental determinists. Others while discussing ecology and culture have tactfully avoided the debate by avoiding the crucial questions and have chosen to slip into the relatively non-controversial arena of cultural anthropology.

Forde in summarizing their views, states that

between the physical environment and human activity there is always a middle term, a collection of specific objectives and values, a body of knowledge and belief ; in other words, a culture pattern. That the culture

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1. Huntington, E: 1959: Mainsprings of Civilization, Mentor Books, The New American Library and Semple, E.C.:1931 : Geography of the Mediterranean Region, Henry Holt, New York.

itself is not static that it is adaptable and modifiable in relation to physical conditions, must not be allowed to obscure the fact that adaptation proceeds by discoveries and inventions which are themselves in no sense inevitable and which are, in any individual community, nearly all of them acquisitions or impositions from without (Forde:1949:463).

If geographical determinism fails to account for the existence and distribution of economies, economic determinism is equally inadequate in accounting for the social and political organisations which may be found in the cultures based on those economies. Indeed the economy may owe as much to the social and ritual pattern as does the character of society to the economy. The possessions of particular methods of hunting or cultivating, of certain cultivated plants or domestic animals, in no wise defines the pattern of society. Again there is interaction on a new plane. As physical conditions may limit the possibilities of the economy, so the economy may in turn be a limiting or stimulating factor in relation to the size, density and stability of human settlement, and to the scale of social and political unit. The tenure and transmission of land and other property, the development and relations of social classes, the nature of government, the religious and ceremonial life - all these are parts of social superstructure, the development of which is conditioned not only by the foundations of habitat and economy, but by complex interactions within its own fabric and by external contacts, often largely indifferent to both the physical background and to the basic economy alike (Ibid:90).

Thus Forde describes both the permissive and prohibitive influence of environment and economy and does not clarify his position further.

The importance of ecological factors in the form and distribution of cultures has usually been analysed by means of a culture area concept which refers to a construct of behavioural uniformities which occur within an area of environmental uniformities. It is assumed that cultural and natural areas are generally coterminous because the culture represents an adjustment to the particular environment (Steward:1955:36). However, with regard to Asia such attempts at analysis have met with difficulties

(Bacon:1946; Kroeber:1947). Thus the environment of any one ethnic group is on the one hand, defined by natural conditions, and on the other by the presence and activities of other ethnic groups on which it depends. As Kroeber emphasises 'culture area classifications are essentially ecologic; thus detailed ecologic considerations rather than geographical areas of sub-continental size, should offer the point of departure' (Kroeber:1947:330).

Similarly Barth in his study of the Pathans, Kohistanis and Gujars, the three major ethnic groups in northern Pakistan, suggests that their distribution is controlled not by objective and fixed 'natural areas' but by the distribution of the specific ecological niches which the group, with its particular economic and political organisation, is able to exploit (Barth:1956:1088).

Barth points out that a single valley system might be occupied by three distinct ethnic groups, each of which occupied only a portion of the total resources, leaving the rest open for other groups to exploit. Thus the sedentary agriculturalists practiced intensive irrigation agriculture on the river flood plain, growing two crops a year and never moving to higher elevations; the second group raised one crop a year on the same flood plain but migrated annually with their flocks up through the five seasonal camp-sites to high mountain meadows; and finally the pastoral nomads who were assimilated into the society of the intensive agriculturalists as a special 'herder caste' contributing milk and meat in exchange for grain and were permitted to use prime grazing land not needed by the sedentary farmers (Ibid).

Barth does not however, pose himself the critical questions. Why, for example, did the second group migrate annually to higher elevations? Why was the third group, the

pastoral nomads, permitted to use land not needed by the farmers ?

His culture and natural area concept does not seem to answer these questions nor explain the situation. Clearly, it was the ecological constraint in that there was either no adequate agricultural land on the river flood plain or the fertility of the soil did not produce enough to support all three groups round the year.

The only possible explanation for the situation is that the first group, who were obviously the dominant class (being the only group having access to agricultural land and military power) needed the help of the second group during the period of 'intensive cultivation' and shared their surplus grain with this group. The remaining surplus was bartered against the product of the third group. Thus it was the ecological constraint (not being endowed with sufficiently fertile land to support its population) that produced this situation in which there was a dominant class - 'militarily more powerful', and two dependent classes who eked out their livelihood through a distinct pattern of division of labour, which itself was made possible by the diversity of the environment.

Flannery basing his arguments on a study of greater Mesopotamia, broadly the area drained by the tributaries of Shatt-al-Arab, argued this point and states quite categorically that the 'diversity of environments made village specialization in certain commodities the best means of adapting to the area' (Flannery:1965:1256). Elsewhere he argues that by 4000 B.C. the redistributive economy had produced regional temple-and-market towns which regulated the produce of a symbiotic nature of agriculturists engaged in intensive irrigation and perhaps

even traders who dealt in copper, salt, asphalt, fish and regional fruits (Hole et al:1965:105-106).

An interesting correspondence between both managerial function and the development of a leadership role with ecology has been argued by Anthony Leeds. Leeds based his study of the ecological foundations of chieftainship on the Yaruro Indians of Venezuela. He points out that the absolute size of work groups, achievable in the Yaruro habitat, is limited not only by the dispersed locations and temporal harvest patterns of resources, but also by the low absolute productivity of the ecology. Leeds suggests that the dispersive habitat, the low-level of technology and the lack of clear harvest surpluses together preclude any continuing managerial function (Leeds:1960:378-392).

In a similar vein, Sahlins has analysed the pattern of organisation itself with regard to land-use and productivity. By comparing family organization and patterns of land utilization in two regions of Fizi, Sahlins has argued that the patterns of land-use are necessary determining conditions of family structure. He suggests that the maintenance of the traditional extended family is dependent on strategic exploitation of productive lands distant from the village site and puts forward two principal reasons for this practice : (a) slash and burn agriculture requires land rotation so that that the forest has a better chance of regaining its former density and the soil has an opportunity to be replenished with organic materials; (b) as a result of differences in the soil, topography, rainfall and irrigation facilities, yam yields and food gathering possibilities vary in different areas of the island. Naturally, it is to the advantage of a village to hold land in different areas of the island in

order to gain access to soil of high potential for a number of crops and to a number of natural food resources. Sahlins points out that the extended size of the family makes it possible to release some members for work on distant fields without hardship for those left in the village.¹ One could argue therefore, that it is the land use pattern that in fact determines the family structure.

Thus, attempts have been made by different scholars to establish some sort of correspondence between ecology and different aspects of what they call 'culture'. However, no clear pattern seems to have emerged out of these studies. One could argue that an all embracing culture concept which does not allow theory building, makes formulation of a clear structure in the relation between environment and society difficult. Steward, of course, himself said that the objective of cultural ecology is not formulation of broad generalizations but detailed specific investigation of man-nature interactions. While one cannot deny that these investigations are themselves invaluable the point is, however, that the domination of the culture concept in the social anthropology approach makes an understanding of the precise nature of the relationship between ecology and the way in which human societies are structured, tenuous.

It is generally agreed that a precondition for the rise of civilisation is a degree of efficiency in the production of foodstuffs, whether stated in terms of economic surplus or of harnessing of energy. This precondition has customarily been met through some form of agriculture, and it may be argued a priori that in a pre-capitalist society the higher the level of civilisation the greater is the need to produce an agricultural surplus. In a given area

1. The idea however, is not original. See Chayanov, A.V.: The Theory of Peasant Economy:1966.

the higher the need for surplus, the more intensive the agriculture.

Thus it has been argued that civilization has not developed where intensive agriculture did not exist - especially in cases where the only form of subsistence was some form of shifting cultivation. Swidden or shifting agriculture has been criticised on the grounds of low productivity per unit of land (Dumond:1961:307) labour employed (Meggers:1954:815; Barrau:1959:55) and wastefulness (Childe:1951:64) also in terms of the destruction of timber and of forest cover (Leach:1959:64). The FAO concludes that under such a backward system, no concentration of population and hence no urbanisation, is possible (FAO:1957:9). These criticisms, however, have been rejected by case studies in Mexico (Lewis:1955:155; Morley:1947:154), in Southeast Asia (Geddes:1954:65; Gourou:1956:342) and it has been asserted that swidden farming is just as capable if not more so of producing a surplus. Leach has argued, with evidence from North Burma, that shifting agriculture is preferred in areas of very low population density with plenty of land and when population density is high and land is scarce, terraced agriculture is standard (Leach:1959:64). Dumond suggests that such practices of extensive agriculture are normally adhered to until (a) population pressure increases and the system ceases to be viable through lack of sufficient land for rotation, (b) soil fertility diminishes after continued cultivation and the system does not operate and (c) where the use of draft animals makes intensive cultivation easier in terms of labour. Obviously here the critical factors which determine the transformation from extensive (shifting) to intensive agriculture are population pressure and the

man-land ratio (Boserup:1970:41-75). As for soil fertility, it must diminish with continued cultivation subject to cropping pattern, cultivating techniques and the replenishment of soil fertility from external sources. Regionally, differences in soil fertility will of course be offset over time by migration and differential fertility-mortality schedules. Dumond's third factor i.e. use of draft animals must be preceded by the fulfilment of the first two.

The striking differences in population density, modes of land-use and agricultural productivity can be understood only in the light of the discrimination of different sorts of ecosystems, explains Geertz. Geertz discusses two forms of agriculture - swidden or slash and burn farming in which a natural forest is transformed into a harvestable forest, and sawah, or wet-rice agriculture - and links these to the ecological contrasts in two different parts of Indonesia, Java and the Outer Islands. The characteristics of these two forms of cultivation are clear :

on the one hand a multicrop, highly diverse regime, a cycling of nutrients between living forms ... on the other, an open-field mono-crop, highly specialized regime, a heavy dependency on water-borne minerals for nutrition, a reliance on man-made waterworks and a stable equilibrium (Geertz:1963:37).

It is in terms of these diverse but distinct characteristics of the two forms of farming that the striking differences in population density, modes of land-use and agricultural productivity can be understood. In swidden, farming is marked by a lack of tillage, less labour inputs than other methods of cultivation and the absence of a concept of a private ownership and the minimal production of crops of commercial or trading significance. Sawah

agriculture, on the other hand, is marked by opposite characteristics.

Geertz's brilliant work concentrates on population density and land-use pattern but none of the studies mentioned here seem to attempt any investigation in the relation between ecology especially seen in terms of its effect through agriculture, and the way a given population is structured. How, for instance, does a particular form of agriculture affect the way the population interacts in the process of production? To what extent does it influence the different conditions of access to land; family farms, the wage labour relation and the patterns of tenancy for example? The present study is an attempt in that direction.

3. Critique and an Alternative Theoretical Approach

What emerges clearly from these studies and their approach to different aspects of 'civilization' is the domination of the rather generally applied term 'culture'.

Cultural anthropologists tend to gather together under the heading of 'material culture' systems which range from subsistence devices in primitive societies including instruments for production (hunting and fishing) and articles for use, and agricultural and herding techniques in more advanced societies to money capital and the trading system in an industrial world. On the other hand, demography, settlement pattern, kinship structures, land tenure, land-use and the like are labelled the 'key culture' factors. It is argued that all these are adaptive and that this process of adaptation is determined by the pre-existing form, or a lower form of culture.

Analysis in cultural anthropology is usually directed towards one of two objectives. Either, as explained earlier, to establish that a level of culture is preceded and determined by a lower level of culture, i.e. that it is history rather than adaptive processes that explains culture. In other words, cultural differences are not directly attributable to environmental differences and are merely representative of divergences in cultural history, and of the tendencies of societies to develop in unlike ways (Steward:1955:35). Or that 'culture area is a construct of behavioural uniformities which occur within an area of environmental uniformities' and 'it is assumed that cultural and natural areas are generally coterminous because the culture represents an adjustment to the particular environment' (Ibid).

Steward writes

over the millenia cultures in different environments have changed tremendously and these changes are basically traceable to new adaptations required by changing technology and productive arrangements (Ibid:37).

Steward does not pursue the matter further and does not pose himself the questions the answers to which would help in developing an analytical understanding of any given social formation. How, for example, does a change in technology affect the production arrangement? How do changes in technology transform a subsistence economy (culture) into a surplus economy (higher culture)? How is the produce distributed and the surplus exchanged? Such questions and the like relating to production, distribution and exchange are crucial in understanding a social formation.

Steward explains at a later stage that,

it makes a great deal of difference whether a community consists of hunters and food gatherers who subsist independently by their own efforts or whether it is an outpost of a wealthy nation, which exploits local mineral wealth and is sustained by railroads, ships or airplanes. In advanced societies the nature of the culture core will be determined by a complex technology and by productive arrangements which themselves have a long cultural history (Ibid:39).

The difference between a pastoral community and a capitalist society is clear but what is it that characterizes this difference ? What is the inner law which keeps a system going and advancing ? What are the forces that explain the 'evolution' of different types of society and how do these forces interact ?

There seems to be little in terms of an analytical framework in the traditional social anthropology approach to explain the internal structure behind the visible functioning of a social system. Banaji highlights this weakness in the social anthropology approach by describing it as a 'handbook of practice disguised as a theory' (Banaji:1970:72).

Terray goes further and, following Banaji suggests that it is necessary to

annex the domain of social anthropology to the field of application of historical materialism ... the aim is to replace social anthropology by a particular section of historical materialism consecrated to socio-economic formations where the capitalist mode of production is absent (Terray:1972:184).

Before going into an alternative method of analysis however, it is in order to see what the social anthropological approach to cultural ecological studies suggests in terms of a methodology and in this we may refer to

Steward again. He suggests an analysis of (1) the interrelationship of exploitative (of nature) or productive technology and environment; (2) the behaviour pattern involved in the exploitation by means of a particular technology; and (3) lump 1 and 2 together i.e., as Steward puts it, instead of treating the key cultural factors like demography, settlement pattern, kinship structure, land tenure, land use and so forth separately, their interrelationship must be grasped (Steward:1955:39-42).

The problem is that this is strictly a methodology of a series of step-wise functions useful for a descriptive analytical understanding of a given situation. Steward does not offer a theoretical framework of inner laws which explain not only the 'interrelationship of exploitative or productive technology and environment ' but also why they inter-relate the way they do. Steward himself says that he is not interested in deriving laws but in the study of concrete situations. But it is not really possible to study concrete situations without the help of some laws under which all societies are subsumed.

The alternative i.e., the Marxist, method of analysis that Banaji and Terray suggest is a theoretical framework of the following inter-locking components : (a) Forces of Production which refers to the mode or technique of appropriation of 'nature', that is, to the labour process in which a 'determinate raw material is transformed into a specific product'. (b) Relations of Production which defines the various relationships people enter into in the social process of production. The relations are the ways in which the union of the means and the instruments of labour and labour itself is accomplished for production

and the specific manner in which this union takes place is what distinguishes one mode of production from another. Relations of production form the basis of social division into classes with conflicting interests such as slave-owners and slaves, landlords and tenants (or serfs), and wage-labourers and capitalists. (c) Mode of Production which is a 'determinate articulated combination of relations and forces of production' (Hindness and Hirst:1975:9).¹ The forces and relations of production in a given mode of social formation form the basis of 'infrastructure' which determines the 'super structure' i.e., kinship, marriage, and family, customs, eating and clothing habits, literature, leadership and all that comes within the scope of cultural anthropology.

The forces and relations of production locate the 'contradictions' in a given mode and explain the 'evolution' of one mode of social formation to another, for instance, the classical, the feudal and the capitalist.

However, bearing in mind the scope of the present study and its principal hypothesis - that ecology does play an important role in the way rural societies are structured and evolve over time - it is necessary to explain this (Marxist) approach particularly in the context of the man-nature relationship and in the context of class relations. I shall begin, in the next section, with the question of 'class' in Marxist doctrine.²

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1. This is elaborated and explained contextually later.
 2. For the benefit of those who are less familiar with the Marxist theoretical frame work, it is briefly discussed in Appendix III.

Section II

Class and Ecology in Marxist Literature

1. Class in Marxist Doctrine

Considerable controversy exists about the theory of social class. Most American sociologists seem to avoid the use of the term 'class' and prefer the broader term 'stratification' which refers to any hierarchical ordering of social groups or strata in a given society. Generally speaking there have been four approaches to the concept by sociologists : caste (Srinivas:1959), estate (Bloch;1961), statusgroup (Weber:1948), and social class (Marx:Capital Vol.3).

It should be emphasised that we are not here concerned with the different theories of social classes nor with their related forms.¹ My purpose is to explain the concept of class in Marxism and its central role in explaining the inner structure and functioning of a given social system. This will help in an understanding of the Marxist analytical tools that have been introduced earlier and in addition, their strength in analysing the inner laws and structuring of a given social formation, will be laid bare.

The concepts of social class is one of the fundamental concepts of Marxian doctrine. Broadly, for Marx, 'the whole of previous history is a history of class struggles' and 'in all the simple and complicated political struggles the only thing at issue has been the social and political rule of social classes' (Marx & Engels: Selected Works, Vol II:149) More specifically, the concept of social class clarifies

1. For Weberian view, see Runciman, W.G., "Class Status and Power" in Jackson, J.A. Social Stratification, Cambridge, 1968; also see Dahrendorf: 1959; Aron, R.:1968; Ossowski, S.:1963.

the relationship between capital and labour and lastly, the concept is bound up with the entire Marxian conception of culture as the superstructure of class interests.

Despite this critical role, the concept does not have any formal definition in Marxism.¹ Instead, its given and latent meanings are explained contextually. However, broadly, the sharing of permanent economic interests, in other words the economic basis of classes and the antagonistic relations between them, are the two particularly important characteristics of social classes in Marxian doctrine. But although they are a necessary condition, they do not constitute a sufficient condition for a valid definition of social class (Ossowski:1963:71).

It was, in fact, Lenin who first provided a formal definition flexible enough to be applicable to all shades of meaning found in the term 'class' as used by Marx and Engels. Classes are

large groups of people differing from each other by the place they occupy in a historically determined system of social production, by their relation (in most cases fixed and formulated in law) to the means of production, by their role in the social organisation of labour, and consequently, by the dimensions of the share of social wealth of which they dispose and their mode of acquiring it. Classes are groups of people, one of which can appropriate the labour of another, owing to the different places they occupy in a definite system of political economy (Lenin: Collected Works, Vol. XIX:421).

The basis of Marx's class classification is a dichotomic division between various oppressor and oppressed classes in history but he could not overlook the 'mass of the

1. Marx left his chapter on class uncompleted, see Capital, Vol.III, p.886.

nation ... standing between the proletariat and the bourgeoisie' (Marx: The Class Struggle in France, 1848-1850: 137). This intermediate class (petit bourgeoisie) is determined by the simultaneous application of two criteria and each of these criteria taken separately forms the basis for a dichotomic division. One criterion is the ownership of the means of production which divides society into propertied and propertyless classes. The second criterion is work which divides society into working classes and idle classes.

There is also an economic gradation that corresponds to this scheme. Thus

the capitalist class is that class which owns large scale means of production or at least sufficient to make possible the employment of hired labour; the petit bourgeoisie consists of those who dispose of the means of production on a modest scale; while the proletariat is in principle the class that owns no means of production whatsoever (Ossowski: 1963: 78)

In this functional scheme, however

it is not the degree of wealth that determines the boundaries between classes but the social roles, namely their relations to the means of production, work and their relation to the hiring of labour (Ibid).

Thus, in this classical Marxian scheme, the two principal classes are divided against each other by more than one criterion to which correspond class groupings of varying extensions and the intermediate class is determined by the boundaries of the two basic antagonistic classes.

The distinctive features of Marx's class theory are, the conception of social classes in terms of the system of production and the idea of social development through class conflict. '... the whole of what is called world

history is nothing but the creation of man himself by human labour'.¹ Marx maintains,

in the social production which men carry on, they enter into definite relations that are indispensable and independent of their will; these relations of production correspond to a definite stage of development of their material powers of production. The totality of these relations of production constitutes the economic structure of the society - the real foundation upon which legal and political superstructures arise and to which definite forms of social consciousness correspond. The mode of production of material life determines the general character of the social, political and spiritual processes of life (Critique of Political Economy:1970:Preface).

Thus, one of the most crucial features of Marx's theory of class is

that it attempts to take account of the interplay between the real situation of individuals in the process of production, on the one side, and the conceptions which they form of their situation and of the lines of social and political action which are open to them, on the other (Bottomore:1965:20-21).

In the process of production the workers are a class in itself against capital determined by its place against capital and a class for itself (when united) in its political struggle against the capitalist class (Marx:The Poverty of Philosophy, 1975:150).

Marx's analysis of social classes never refers simply to the economic structure (relations of production) but always to the ensemble of the structures of a mode of production and social formation, and to the relations which are maintained there by the different levels. A social class can be identified either at the economic level, at the political level or at the ideological

1. Letter to Weydemere, March 5, 1852.

level and can thus be located with regard to a particular instance. Yet to define a class as such and to grasp it in its concept, it is necessary to refer to the ensemble of levels of which it is the effect (Poulantzas:1975:63-64).

We now have a general idea of the class concept in Marxist doctrine and the various contexts in which it may be understood. I have also tried to provide some underpinning of the theoretical position but it is not necessary to go beyond this at this stage.¹

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1. Abdullah suggests three procedures for an economic identification of classes: Step 1 : identify the typical 'enterprise' i.e., unit of appropriation of nature, the locus of the labour process; Step 2 : identify the means of production that are brought together in this labour process and Step 3 : on the basis of the above, identify the following categories of agents : (a) labourers, (b) controllers of the labour process, and (c) effective possessors of the means of production. The number of classes is the number of distinct categories of agents identified in this way - distinct not just empirically but distinct by a logical necessity inscribed in the structure of the labour process. Thus, he concludes 'we have two kinds of class relations : (a) the relation between the labourers and the controllers of the labour process (who are also the effective controllers possessors of some means of production), and (b) relations between the controllers and the possessors of other means of production. Depending on the mode of production, there may be no class relations, or class relations of type (a) only, or type (b) only, or both' (Abdullah:1978:104-105).

Having explained the structural basis of the concept of class in Marxist theory we can look further into the man-nature relationship in order to establish the basis of this study. I have earlier looked into the balance of opinion on the subject of, primarily, the social anthropologists, environmentalists and ecologists. Here I will draw on Marxist literature especially on the works of Marx, Engels and Plekhanov.

2. Man and Environment in Marxist Literature

Montesquieu said that once the geographical environment is given, the characteristics of the social union are also given. In one geographical environment only despotism can exist, in another - only small independent republican societies, etc. Voltaire disagreed, maintaining that in one and the same geographical environment there appear in the course of time various social relations, and consequently geographical environment has no influence on the historical fate of mankind.¹ Marx explained this apparent contradiction in terms of interaction of the productive forces (Dialectical Materialism).

While Darwin explains the origin of species by the adaptation of the organism to the conditions existing outside it; in other words, not by the nature of the organism but by the influence of external nature, Marx explains the historical development of man not by the nature of man but by the characteristics of those social relations between men which arise when social man is acting on external nature.

If this world were to remain unchanged, human labour power would always achieve the same type and degree of

1. See Editor's note, Plekhanov:1956:217.

development. According to Marx, 'neither nature objectively nor nature subjectively is directly given in a form adequate to the human being' (Marx: Manuscripts, 1844:158). In order to meet his needs, man is forever remoulding nature. The direction this productive activity takes, its immediate and basic aims, can be traced to the demands that nature makes on the individual.

The link between work which maintains life and merely reproduces existing conditions, and work which goes further and alters these conditions is the social division of labour. The degree and level of the social division of labour is determined by whether or not nature is 'adequate' to maintain life. The more 'inadequate' nature, the greater is the social division of labour as specialization amongst individual workers results from man's attempt to satisfy his basic life needs in an 'inadequate' nature. In other words, it is the differentiation of the soil, the variety of its natural products, the changes of the seasons which form the basis for the social division of labour. This, in turn, by bringing about changes in the natural surroundings spurs man on to the multiplication of his wants, his capabilities, his means and modes of labour (Marx: Capital, Vol.I:513-514).¹

Thus, it is not nature as such, but variations in nature which force the individual and, in the last analysis, enable him to develop his powers. 'With nature viewed as an incentive, as well as a limitation on activity, the natural features of each locale assume a special significance' (Ollman:1976:100).

1. Marx believed that their different climates gave the Irish more wants but less imagination than the Indians (Marx & Engels: On Colonialism, Moscow:74). Without knowledge of what in the Indian climate engenders imagination, this would seem to contradict his view that the more wants a people have, the speedier their development (see Notes: Ollman:1976:296-297).

This division of labour serves Marx historically as the exit by which men leave primitive communism, sociologically as the root cause of the division of society into classes, economically as the fount of private property and psychologically as the means of anchoring their distinguishing characteristics in the people of different classes (Ibid:158).

Man according to Marx, was originally a social and tribal being and he became an individual only through the process of history (Marx: Grundrisse:496). An isolated individual could do no better than derive his subsistence from nature. But the real relation to the earth as property 'is mediated through the peaceful or violent occupation of the land and soil by the tribe, the commune, in some more or less naturally arisen or already historically developed form' (Ibid:485).

Marx points out that the different forms of commune or tribe members' relations to the tribe's land and soil - to the earth where it was settled - depend partly on the natural inclinations of the tribe, and partly on the economic conditions in which it relates as proprietor to the land and soil in reality, i.e. in which it appropriates its fruits through labour, and the latter will itself depend on the climate, the physical make-up of the land and soil, the physically determined mode of its exploitation, the relation to the hostile tribes or the neighbouring tribes, and the modification which migrations, historic experiences, etc., introduce (Ibid:486).

Primitive communes, whether Germanic, Slav, ancient or classical, continued to exist until the process of production and the increase in population gradually modified the objective conditions and these various communities were transformed introducing more complex economic

formations. These new economic formations also, especially in the early stages, when their productive forces are still of too low a level to emancipate them - develop according to environmental conditions.

Marx sees the division of labour arising in society as part of a complex which includes private property, exchange and class divisions, so that to speak of an individual doing only one kind of work is already to assume a society where man's activity and its product are not his own. One of the ways in which Marx defines 'property' is as a man's 'relation to the natural prerequisites of his production as his own' (Marx:Pre-Capitalist Economic Formations:87-88). His thesis seems to be that when there was just enough wealth for people to exist property was held in common. When a little more was produced, especially with the appearance of agriculture, those individuals who were able to take it for themselves did so and defended it with every means at their disposal, which included devising a claim to private ownership (Ollman:1976:161). Thus, agriculture reinforced private ownership of property. Naturally, with agriculture, private property enters into contradiction with the more ancient mode of social appropriation.

What is critical for our purpose is to be able to see the logical link between environmental differences, division of labour and private ownership of property. Private ownership of property causes division of society into classes, but the forms taken by private property alter with developments in the division of labour, the level of which is determined by the 'adequacy' or 'inadequacy' of the productive forces. While the degree of development of the productive forces determines the measure of

the authority of man over nature, the development of the productive forces is itself determined by the qualities of the geographical environment surrounding man. In this way nature itself gives man the means for its own subjection (Plekhanov:1956:216-217).

Plekhanov in fact goes further and suggests that social structure 'is determined in the long run by the characteristics of the geographical environment, which affords men greater or lesser possibility of developing their productive forces' (Ibid:216). This has been seriously questioned. Geographical environment is a constant and indispensable condition for the development of society but it has been suggested that geographical influences do not make the possibility 'greater or lesser' but 'accelerates or retards' social development.¹

What the critic seems to have overlooked is that Plekhanov in fact, makes it obvious that environmental influences afford men a 'greater or lesser possibility of developing their productive forces' until such time as definite social relations have arisen when their further development takes place according to its own inner laws. The operation of these inner laws

accelerates or retards the development of the productive forces which conditions the historical progress of man. The dependence of man on his geographical environment is transformed from direct to indirect. The geographical environment influences man through the social environment .

Plekhanov makes his point clearer when he says

the relationship of man with his geographical environment becomes extremely changeable. At every new stage of development of productive forces it proves to be different from what it was before (Ibid:217).

1. Editor's note in Plekhanov:1956:130.

Plekhanov's view was certainly no deviation from Marx's. According to Marx only capitalism constituted a real quality jump in the process of man's historical development, by breaking the stronghold of nature.

In all forms in which landed property is the decisive factor, natural relations still predominate; in the forms in which the decisive factor is capital, social, historically produced elements predominate (Marx: Critique of Political Economy:213).

To Marx, there is in every social formation a particular branch of production which determines the position and importance of all the others, and the relations obtaining in this branch accordingly determine the relations of all other branches as well. Landed property being the source of all production, with agriculture, the first form of production began. Certain types of agriculture existed among the pastoral tribes and this determined land ownership, among the settled agricultural people agriculture predominated as among the societies of antiquity and the feudal period; society in fact retained a specifically agrarian character through the period of manufacture, being completely dependent on it as in the Roman period, or as in the Middle Ages. And as long as landed property continued to be the decisive productive force, natural environment i.e. soil fertility, accessibility to water, rainfall, drainage etc played a determining role in the way society was structured.¹

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1. A specific example would be the case of the rise of state and bureaucracy in Asia.

In Asia, unlike in Europe, the state was born at a time when the commune still worked the land collectively, or at most leased the land for a time to various families, and as a result private property had not yet taken root (Engels, F:Frankische Zeit:1882:475 in Melotti:1977:43). The state was born out of the need to meet the basic requirements for drainage and irrigation networks, dams and other major hydraulic

Section III

Rural Class Structure in Marxist Notions of Modes and Relations of Production

In the last two sections I have surveyed the balance of opinion on man's relationship to nature and, in view of the limitations of some of the well known and widely taught approaches in grasping the essence of this relationship an alternative theoretical option in terms of the Marxist conceptualization of society has been suggested. I have, in this context, drawn on Marxist literature in order to see the position of the various exponents on the nature of the relationship between man and his

1. Continued from previous page.

engineering works necessitated by local geographic and climatic constraints. Without these networks no agriculture was possible. These original, functional powers of the state machinery were transformed into political domination and exploitation.

To Engels, the absence of private property was 'due to the climate, taken in connection with the nature of the soil, especially with the great stretches of desert which extend up from the Sahara straight across Arabia, Persia, India and Tartary up to the highest Asiatic plateau' (Selected Correspondence, Engels to Marx:76).

However, while the nature of these public works (irrigation and waterworks principally) explains the absence of private ownership of land, making the state a despot, absence of private property itself encouraged only fixed, limited division of labour. As a result we find in India a structure of dispersed and isolated, but self-sufficient, villages with a low-level of differentiation resulting in the stagnation of the oriental system or what Marx calls 'too low a degree of civilization'.

geographical environment.

As has already been argued in the preceding section; at the very heart of the Marxist concept of society is its class theory. However, before we can examine how and to what extent the ecological setting of a village may affect its class relations, it is necessary to identify the various classes we would expect to see in a rural social formation. Classes, are determined by differential access to the means of production but are set in the various relationships people enter into in the process of production. Therefore, a class analysis must involve an analysis of the relations of production itself.

Classes are normally defined in terms of conditions of access to the means of production and the relations people can have to the means of production are basically those of 'possession' and 'separation'. Ownership is the legal way of looking at the same thing, but effective possession need not always be legally sanctioned or codified. Usually, in most societies there will be some body of written or unwritten law or custom which codifies existing practices.

The point is that since land is the chief means of production in agriculture I shall try to define classes in terms of the ways in which people obtain access to land. In other words, the ways in which the union of the means, the instruments of labour and labour itself is accomplished is what distinguishes one epoch from another.

From what I have seen in the villages and from what we know in general from Bangladesh, it seems that there are basically three ways in which people obtain access

to land. Firstly, through ownership which means essentially through ownership inheritance and therefore, kinship. Land can also be acquired through purchase either outright or through foreclosure of mortgage and we will eventually see how important that is. To start with, however, we can retain the categories of ownership as one means of access. Secondly, there is the wage contract. This is where the owner of the land hires labourers and pays them a fixed amount on a daily, monthly, or yearly basis in cash or kind. This form of accomplishing a union between land and labour is of course typical of, though not necessarily identical with, a capitalist mode of production. Finally, broadly speaking, there is tenancy. This is where an individual or a household rents-in some land from a landowner undertaking to pay to the owner either a fixed amount in money or in kind or a stipulated share of the crop every year or every season.¹

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1. These, especially wage contract and tenancy, are somewhat different ways of accomplishing the union between land and labour and it is important to identify them with caution. But whether or not they really represent different ways of accomplishing the union between land and labour can only be understood after looking closely at the person who has rented-in, at his motives for doing so and what he is doing with the land once he has rented it in. There can be, for example, capitalist renting-in of land which is the classic pattern in England that Marx discusses, where the capitalist did not own his land but rented it in from his landlord. This, of course did not make him a feudal tenant or for that matter, a peasant tenant. It made him what he was, that is, a capitalist farmer. This is because of the way he himself was at the next stage accomplishing the union between labour and the means of labour. He was not providing labour but only capital and organisation. In the context of Bangladesh, however, by and large we find that when people rent-in land it is to cultivate it themselves. If they use some wage labour on this land it is not in order to make commodities. If however, they predominantly did so it would be capitalist farming in spite of the fact that the land is not owned. In any case we are likely to find that the dominant form of tenancy in Bangladesh is in fact share-cropping where the rent is paid in kind and stipulated not as a fixed amount but as a share of the produce.

So, broadly, we may distinguish between three ways of obtaining access to land and three ways of accomplishing a union between land and labour. This we might, as a first approximation, identify with three relations of production.

- (i) In access through ownership the labour and the land are both provided by the same person or the same household. The great majority of household land is acquired through inheritance and the same household also provides all or most of the labour, and produces basically for family consumption. This we might say, is the locus of the peasant mode of production. Here the two classes, the labourer and the non-labouring owners of the means of production are collapsed into one class.

- (ii) In wage labour relation, rich farmers produce almost entirely with hired labour and market most of their produce in order to maximise profit. Therefore the system presupposes some degree of dynamism. Here the wage labourers are dependent on the capitalist farmers for their employment especially in that Bangladesh is a labour surplus country.¹

- (iii) Rent relations where the tenant does not own but only has possession of the land and is therefore dependent on the capitalist farmer. This dependence may be manifested in many forms, in terms of giving free labour or voting for the landlord during elections for instance. In rent relations, production and with rare exceptions, organisation is carried out entirely

1. Except during peak periods.

by the tenant and the owner, the landlord, appropriates the surplus in terms of rent. Although the form of rent and the conditions of tenancy are different from European Feudalism, in the sense that the structure is based on rent relations this is identified with a feudal mode of production.¹

Thus, owner cultivation is associated with peasant mode of production or petty commodity production; the wage labour relation with capitalist production; and share-cropping² with feudal or the semi-feudal mode of production. This more or less corresponds with Hamza Alavi's early classification (Alavi:1973).

There are, however, several kinds of problems with this kind of classification. Human society being as complex as it is, all people or households do not fall neatly into the classes we have indicated above in the three forms of production relations. For instance, most family farms do use some wage labour, so do the share-croppers. Does this make them capitalists? Some of them also hire themselves out as wage-labourers; does this make them wage-labourers? Some poor households hire-out land to free themselves to do other jobs; does this make them landlords and is this a feudal relation?

Let us take a more difficult situation. A large owner's choice between renting-out his land to share-croppers or cultivating it with wage-labour is a profit maximising choice, depending on whether labour is cheaper to acquire

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1. See Bloch, M. Feudal Society (London 1961) Part VI.
 2. Share-cropping being the dominant form of rent relation; see Hossain:1977.

through the mechanism of share-cropping, which is in fact indirect labour, and whether prices in general and prices of agricultural products in particular are rising or not. But the point is, the landowner who hires wage labour may not be in any way, in the technique he uses or in the proportion of the produce that he markets, very different from the owner-cultivator or even from the man who share-crops out a large part of his land. In that case is there justification for suggesting that they represent different relations of production ?

The answer to this complex question and many others, can be sought in the theoretical position of the concept of relations of production itself.

Not all production relations are necessarily relations of production. Not all forms of surplus appropriation represent modes of production, and for a concept of mode of production to be viable it must be possible to 'deduce' the forces from the relations (Hindness and Hirst: 1975: 10-13). This would mean that share-cropping as a form of surplus appropriation must, in order to be a separate relation of production, induce or logically imply a set of forces of production that are distinct from owner cultivation or wage labour relation. Empirically, however, in Bangladesh agriculture, share-cropping, wage labour and owner cultivation all by and large represent the same level of the forces of production. The point is, however, if this is the case empirically then one can hardly argue that logically, different forces follow from different relations.

It is further suggested that the three different instances of mode of production - owner cultivation, wage labour and share-cropping - have a relative autonomy so that even if

the relations of production do not make a significant difference at the level of the forces of production, they might make a significant difference at the political and the ideological level (Althusser: 1975) or in their market involvement.

It is possible to argue that production with wage labour and production by share-cropping need not make a significant difference at the level of involvement in the market¹ although the former could well lead to a higher level of commercialisation as the wage labourers, paid in cash, themselves would be more directly involved in the market which may have further long term dynamic implications in terms of polarisation. Share-cropping output, on the other hand, is a consumable output. There is however, no adequate data to test this argument but we can see later how this position holds with respect to the data in the three villages.

With regard to the political and the ideological level it is argued (largely by analogy with the feudal system) that share-cropping involves a higher degree of dependence and servility than wage labour relations. While wage labour relations involve a higher degree of class awareness or 'class consciousness', the share-croppers think of themselves as the object of benevolence or cruelty and passive recipients of whatever society may hand out to them rather than active participants in a society.

There is no empirical evidence supporting these assumptions nor is it possible to examine these hypotheses for no

1. The crop-share a landlord gets from renting-out his land is not likely to be very different from the crop he would retain if produced by hiring wage labour as he would have to sell part of it in order to pay his labourers. Thus, although total volume marketed would be significantly more than what would be produced through share-cropping, his marketed surplus may not vary much.

data was collected on these specific issues. However, it is difficult to see why, other things being equal, a poor man who receives a plot of land from his landowner should be more dependent than a man who receives a wage.

The argument that a share-cropper is more tied to the land than a wage labourer and is therefore not as free is invalid because the assumption that the share-cropper invariably or generally has a plot of land whereas the wage labourer is totally expropriated is unfounded, especially in Bangladesh. In fact a lot of wage labour comes from small peasant families (Bardhan, K.: 1973; Rudra and Biswas: 1973; Muktada: 1975; Rudra and Mukhopadhyaya: 1976). It may be argued that the landlord has economic reasons for using share-croppers - he has a source of occasional free labour and he is more sure that his share-cropper will not run off in the middle of the crop season, but in a economy which is by and large labour surplus, the risk a landlord runs in depending on wage labour cannot be high. As regards the political reasons for landlords it is difficult to see why a wage labourer should be less dependent than a share-cropper. The fact that the landlords do not try to tie their share-croppers down is clearly indicated by their lack of willingness to formalise the relationship and their eagerness to harass them. This, I feel, argues against the hypothesis that landlords also seek power through share-cropping relations. This is not to suggest that they do not wield power but whether the power they have over share-croppers is stronger than the power they might have over wage labourers is not conclusively demonstrated anywhere although it does tend to be assumed.

On the ideological level, indeed Marx has said peasants are a class in the sense 'potatoes in a sack form a sack of potatoes' because their conditions of production isolate them instead of uniting them (The Eighteenth Brumaire of Louis Bonaparte: 105-106). Thus, one might observe what is sometimes called 'sturdy' peasant independence, backwardness and superstition because of the dominance of the forces of nature, religion and almost certainly patriarchy. However, as has been said before, it is difficult to see whether and to what extent this attitude and awareness is different from those under share-cropping relation or for that matter wage labour relation. The last however, if it assumes significant proportions, may have wider implications as it involves a higher degree of commercialisation. However, I do not believe that in Bangladesh wage labour relations have reached such proportions especially in the rural areas.

Obviously these arguments can be further developed but are not crucial in our attempt to identify the relations of production in the three villages. We will, therefore, notwithstanding the above reservations, start by maintaining Alavi's distinctions. Is it possible to identify distinct groups of farmers who have different behaviour patterns? To distinguish, for instance, between farmers who tend to use predominantly wage labour and to market most of their produce and farmers who use predominantly share-cropper labour and market most of the rent-share received? One answer to this

problem of quantifying measures would be to use the conventional fifty per cent criterion.

As a preliminary, let us divide the three villages into three sectors : the peasant, the capitalist and the feudal. Thus, we would be identifying first of all, a total of five classes. In the feudal sector, the share-cropper and the landowner; in the capitalist, the wage-worker and the capitalist farmer; and in the peasant, the peasant.

This is not meant to be a class analysis but an analysis of the incipient forces towards class differentiation because the other classes do arise out of the bosom of and sometimes fall back into, the peasant economy. In this sense, feudal landlords as well as capitalist farmers emerge from the peasant economy and a few fall back. At the other extreme, the peasant economy constantly reproduces, possibly at a growing rate, the landless. The peasant economy itself may be in the process of extinction. The reason for caution in the making of such predictions is that in the past, they have frequently proved premature.¹

1. An immediately obvious example being Lenin's insistence (Lenin Collected Works, Volume 3: 175-186) although he did not set any deadline, that the peasant economy would soon be dominated by the capitalists. Yet Lenin himself revoked some of what he said

However, we need not go into these questions, although they are undoubtedly important issues, and for the moment I shall try to identify capitalist farmers on the basis of their employment of wage labour, feudal farmers on the basis of their engagement of share-croppers and the peasant sector in terms of its relative non-participation in the market for labour or land. This is, however, not to suggest that the peasant farmers do not supply or do any wage labour, or that they do not buy or sell anything at all, but the extent of their involvement either in the land or the labour market is not so deep that they cannot get out and still maintain their economy. Admittedly, a minimal degree of market involvement is implied for every household but on the basis of this one would not be justified in saying that they are all therefore part of the capitalist system. One could say, however,

1. Continued from previous page.

as early as 1908 when he wrote the Agrarian Program of Social Democracy in the First Russian Revolution, and stressed the persistence of what he called feudal elements. He also noted that while they were quite right about the trend, they had mistaken the moment and had over estimated the degree of capitalist development. After Lenin, most of the discussion within the Communist Party of the Soviet Union, was posed in terms of the peasants; the rich peasant, the middle peasant and the poor peasant. One may say that, together with feudalism, the revolution had also succeeded in abolishing capitalism in the countryside. During the New Economic Policy Lenin himself said that it was a concession to capitalism and was bound to give rise to capitalism in the countryside (Lenin, V.I., The Agrarian Programme of Social-Democracy in the First Russian Revolution, in Collected Works, Vol.13, Progress Publishers, Moscow, 1962).

The arguments relating to capitalism and peasant economies, however, can easily lead to confusion. For instance, in European agriculture or as an extreme case American agriculture, are the criteria for capitalist agriculture met? How much wage labour, for example is employed particularly since most of the farms are in fact run by family labour.

that this is a peasant economy which is clearly dominated by a capitalist mode of production although this does not make it a part of the capitalist mode of production. I feel this distinction is reasonable and indeed important.¹

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1. The distinction between a capitalist mode of production and a mode of production that is dominated by capitalism but is not itself capitalist, raises the issues that figured prominently in the debate between Andre Gunder Frank and Ernesto Laclau on the mode of production in Latin America. Frank argued that Latin America is and has been at least since the 16th century, capitalist. He supported this theory by showing that, in agriculture - which was dominated by a hacienda type system in which large plantations used bonded labour of various sorts - production was decided mainly by the market, and that this made for a capitalist mode of production (Frank:1969; 1970; 1973). Laclau, in this debate and afterwards (Laclau:1971 and 1972) suggested that the following distinction should be kept in mind. He argued that the fact that the surplus produce of a given system of production is sold on the capitalist market should not be taken to mean that that system of production itself thereby becomes capitalist.

This is largely a definitional issue. One could say that if a particular mode of production is significantly oriented to the market and the market is capitalist, then no matter what kind of labour is used or how the labour is paid for, it is part of capitalism. I think the way in which labour is exploited within a particular social system is important. It would make a difference to Latin America if the surplus produced which goes on to the world market was produced by free labourers with wage contracts rather than by bonded labour or by the hacienda system and it is important to capture these differences in definitions. But the expansion of the definition of capitalism, by saying that wherever a production system buys from and sells to the capitalist market it becomes part of capitalism, I find unacceptable. For in that case, the whole world, including the socialist world becomes capitalist. America, for example buys and sells to the Soviet Union but this surely does not make the Soviet Union capitalist. An argument to the contrary would be rather simplistic.

In the rich peasant class therefore, I shall try, if the data permits, to distinguish between those who tend to depend more on wage labour and others who mostly depend on share-croppers. I can then compare the different villages and see if there is a difference that can be related, if possible, to the different ecological variables.

In the middle range, it would be reasonable to classify most of the households as being part of the peasant economy. It may be necessary to set up more or less arbitrary criteria, such as a fifty per cent criterion for example. Thus, if a peasant household gets more than fifty per cent of its household income from providing wage labour then it should be classed as semi-proletariat rather than peasant. In this way, households can be distinguished according to whether they are mainly wage labourers or mainly share-croppers.

Rural society does not of course consist only of people directly involved in agriculture but here we need not go into a discussion of the people involved in other activities except perhaps peripherally. In the case of, for example, the artisans, one could probably apply similar criteria and concepts as those applied to agricultural production. While share-cropping is not heard of in, for instance, weaving or pottery, production can be owner - petty commodity - or wage labour, a modified putting out system or market capital penetration where the artisan works on his own account but is totally in debt or his instruments of production are owned by the person from whom he has had to borrow money. So, to some extent, concepts similar to those in agriculture would apply except that a peasant mode is not really possible in the sense that the output is consumed by the producer, because no potter could consume

mainly pots or weaver mainly clothes. These people, by definition have to be deeply involved in the market. For this reason I am not looking at these groups except in so far as they provide means of livelihood to the peasants themselves.

The case of the other two important rural classes - the merchants and the rural money lenders - however, is different, the point being, should they be considered as separate classes? Here again Hindness and Hirst provide a clue and what they have to say would suggest that if we can see that a peasant household economy is critically dependent for its own reproduction, for the renewal of the means of production and for the renewal of labour itself, on merchant capital or on usury, then these two constitute relations of production. And the two categories - money lenders and merchants in that case should be considered as separate classes.

Here again many considerations arise. The usurer, for example, is in fact, the rich peasant himself. There is of course, no reason why one individual or one household cannot fulfil the role of agent in two different modes of production or two different relations of production at least. After all, in neo-classical economics, the same individual can and must be a consumer in his capacity as such while at the same time he is a capitalist. Therefore, it is not contradictory to have the same household in different positions in the structure of production.

It is important to see how significant usury is as a source of surplus appropriation and as a source of renewal of the conditions of reproduction of peasant households.

In this we have little option except to depend on percentages. What percentage of peasant income goes, for example, in interest payments or in principal and interest? How likely is the borrower to lose his land for failing to repay his loan? These are some of the questions the answers to which will explain the structure of usury as a source of surplus appropriation as well as the critical dependence of the poor households on it. I intend to look into these questions in the next chapter in terms of the data.

For merchant capital, on the other hand, analysis is more complex since it is difficult to quantify the kind and the rate at which the peasant exchanges his commodities against industrial goods and to examine whether surplus is actually being transferred from agriculture to industry or from rural areas to urban areas through trade.¹ To the extent this does involve unequal exchange, merchants do constitute a class.

There are of course, smaller merchants who are peasants themselves and many of them are not better off than middle peasants or even smaller peasants and they are not ideologically or politically in a different category from the average peasant. The large merchants are a different case of course. Many of them are rich peasants and merchants at the same time and they may be said to represent the sort of emergent rural bourgeoisie who increasingly

1. In principal one could calculate the labour content but it is difficult to see how significant these calculations would be for theoretical meaning even if it was possible to do so. Whether the fact that the peasant sells produce embodying 10 hours of his labour and gets back produce embodying only 6 hours of urban industrial labour, constitutes exploitation in any real sense, is something on which there does not appear to be any clear consensus of opinion.

make their voices felt in politics. To this extent, certainly, we should look at them, even if it is not very clear exactly what role they play in structuring the forces of production.

To summarise, we can identify seven categories of people in the villages who overlap and who may or may not proliferate as classes in a rigorous Marxist sense.¹ These categories are : (i) owner farmers; (ii) landowners who share-crop out their land whom I shall call 'landlords'; (iii) rich peasants who depend primarily on wage labour rather than on share-cropping out their land and whom I shall call 'capitalist farmers'; (iv) wage labourers; (v) share-croppers; (vi) merchants and lastly, (vii) the money lenders. This classification can be justified in the terms I have already mentioned. The first five represent ways of uniting land and labour. The other two groups control not land but other means of production. One controls money and through money perhaps the purchase of inputs or the purchase of consumption goods essential for maintaining labour power. The other, the merchant class, might control something more intangible but perhaps equally important. In so far as the means of reproduction of the peasant households is dependent on the market and if and when the merchant monopolises the market, one may say that the merchant does control one of the important means of production in an extended sense.²

So these are the groups tentatively identified at the village level and probably the first five groups in particular should be stressed since my focus is mainly on agriculture itself.

1. Depending on the levels of analysis applied.

2. See Hindness & Hirst:1977:63-67; Lenin:1964:175-192, 364-382.

CHAPTER 5

Relations of Production in the Three Villages : An Empirical Study

As has been argued earlier, in the context of Bangladesh and in particular in the three villages examined in this study, the different relations that farmers enter into in the process of production, overlap as can be seen from the data below. Therefore, to ensure that the classes are understood and identified clearly it is necessary to apply some of the ideas we have developed previously in the context of the sample villages. This will help to locate the various modes and particularly the dominant mode of production. It will be possible to decide, for instance, whether the dominant mode of production, distribution and circulation is one of feudal, capitalist or peasant form. In other words, the examination of the data along the above lines will indicate whether the dominant structure of the relationships that people enter into in the process of production is that of landlord and share-cropper, capitalist farmer and wage labourer or peasant (in which the labourer and the non-labouring owners of land are merged into one class).

This is the pre-requisite to the testing of my hypothesis, i.e. that ecology plays a mediating role in the way class relations in the rural areas are structured and evolve over time. Only if and when we know that one village is dominated by a structure of capitalist farmer and wage labour relationship, for example, can we examine to what extent this difference in the class relation is due to differences in ecology between the villages.

Section I

Distribution of the Means of Production

In this section we may begin by describing an overall 'relation of possession and separation' with respect to the principal means of production, land, and the distribution of some of the other basic means of production such as bullocks and ploughs.

In Table 5.1.1, three basic means of production - land, bullocks and ploughs - appear to be distributed very similarly. Landlessness is highest in Bajua with 38.1 per cent and lowest in Biddya with 23.7 per cent. The point to note is that Bajua which has the largest percentage of landless peasants also has the largest percentage of people with no bullocks and ploughs (20.24 per cent). For these people, separation from the means of production is absolute. If we compare access to land and the other two means of production we see that in Jamira although 73.10 per cent of households have land, a much higher percentage have bullocks and ploughs which are hired out in peak periods. The pattern is different in Bajua and Biddya and, in fact, in Bajua not all landowners have bullocks and ploughs. So clearly these households either rent-out their land or hire bullocks and ploughs for cultivation under self-management.

Land is, however, the most important means of production even more so than money in the sense that unlike the latter it is not a means of consumption.

Whereas Table 5.1.1 gives only the breakdown between the landless and the landowners, Table 5.1.2 also shows how

Table 5.1.1

DISTRIBUTION OF MEANS OF PRODUCTION : in percentages

Percentage of Households						
Land-owners	Landless	With bullocks & ploughs	Ploughs only	Bullocks only	No bullocks or ploughs	
BAJUA	61.47	38.1	57.14	2.38	20.24	20.24
BIDDYA	77.22	23.7	77.78	-	16.67	5.56
JAMIRA	73.10	26.90	84.78	-	8.70	6.52

Source : Field Work 1976-77

land is distributed : in all three villages a minority own much of the land and the majority own very little land. If the entire population of the villages is taken into account, it can be seen that in Bajua as much as 66.5 per cent of households (consisting of the 'landless' and the 'poor') have only 12 per cent (col.4) of the land, whereas the top 7.3 per cent ('surplus' and 'rich' together; col.2) own over 50 per cent of the land. Corresponding figures for Bidhya are 63.7 per cent owning only 16.8 per cent and at the top 12.5 per cent of the peasants owning almost 50 per cent of the land and in Jamira as against the bottom 56.1 per cents' 10.6 per cent of the land, the top two classes who make up about 11 per cent of the population own just under 50 per cent of the land. So it seems that although Bajua is the most polarised of the three villages as can be seen from the Concentration Ratio (col.5), the land distribution pattern is similar in all three villages.

It has already been argued that the ecology of the Sundarbans played an important part in the differential access to land in the south (Chapter 2). The important point here is to see how this relative access to land, structures the relations of production in the three villages and whether these relations of production constitute the same or different modes of production. In theory the mode(s), particularly the contradictions of the dominant mode articulated through the notions of relations of production, will define the class structure in the villages.

I shall try to identify these modes by examining the four different - sometimes overlapping - relations of production that have already been underlined in the last

Table 5.1.2

DISTRIBUTION OF LAND/in acres

	(1)	(2)	(3)	(4)	(5)
	Total Households	% share of each class	Total Farm size	% share of each class	Concentration Ratio
<u>BAJUA</u>					
Landless	83	38.1	-	0	
Poor	62	28.4	61.48	12.0	
Subsistence	38	17.4	98	19.0	
Self-sufficient	19	8.7	87.82	17.1	
Surplus	11	5.0	103.47	20.1	
Rich	5	2.3	162.99	31.7	
All Farms	218	100	513.76	100	.71
<u>BIDDYA</u>					
Landless	19	23.7	-	0	
Poor	32	40	30.97	16.8	
Subsistence	10	12.5	24.09	13.1	
Self-sufficient	9	11.25	38.80	21.0	
Surplus	8	10.0	60.41	32.8	
Rich	2	2.5	30.0	16.3	
All Farms	80	100	184.27	100	.59
<u>JAMIRA</u>					
Landless	46	26.9	-	-	
Poor	50	29.2	27.81	10.6	
Subsistence	33	19.3	50.66	19.2	
Self-sufficient	23	13.4	56.95	21.6	
Surplus	14	8.2	75.02	28.5	
Rich	5	2.9	52.73	20	
All Farms	171	100	263.17	100	.61

Source : Field Work 1976-77

chapter : wage labour, share-cropping, market and usury.
I shall begin with wage labour and try to establish
whether or not there is capitalism in agriculture in
any or all of the three villages.

Section II

Wage Labour

Table 5.2.1 gives the basic data by village and by class. It can be seen that the extent of wage labour use is substantial in all the three villages and falls below 50 per cent only in Jamira where it constitutes only 37.7 per cent of total labour use in farming the rest being family labour. In the other two villages, it is 52 per cent for Biddya and 56 per cent for Bajua. So in any case a very high proportion of total agricultural labour use in these three villages is hired labour. Therefore at least for the two villages - Bajua and Biddya - it cannot be said that production is mainly carried out by family labour on family land, and one might be tempted to say that this is an index of capitalism. But of course wage labour is not a sufficient definition of capitalism and in some circumstances it may not even be necessary. To argue the incidence of capitalism it is necessary to look into the whole process of surplus generation and appropriation. This includes the circulation of commodities. Therefore at a later stage the circulation of commodities will be related to participation in the market by those who hire wage labour.

Wage labour is by no means used only by the rich and the surplus farmers though clearly they use more than the poorer farmers. This may be explained by the fact that they have more surplus land than can be cultivated using family labour and therefore they need to hire more wage labour. In any case the poorer farmers including the landless who of course do not have any land of their own

Table 5.2.1

EXTENT AND PREVALENCE OF WAGE-LABOUR USE : man-days

	(1)	(2)	(3)	(4)		(5)	(6)		(7)	(8)
				Percentage of Total Labour			Percentage Share of Total			
	Total Labour Used	Total Family Labour	Total Hired Labour*	Hired	Family	Total	Hired Labour Used	Family Labour Used		Average wage -labour use per Household
BAJUA										
Landless	2619	2030	589	22.5	77.5	4.5	20.3	7		
Poor	5326	3711	1615	30.3	69.7	12.5	37.2	26		
Subsistence	4891	2773	2113	43.2	56.8	16.3	27.8	56		
Self-sufficient	2691	1072	1619	60.2	39.8	12.5	10.7	85		
Surplus	2899	345	2554	88.1	11.9	19.7	3.4	232		
Rich	4487	49	4438	98.9	1.1	34.4	0.5	888		
All forms	22913	9985	12928	56.0	44.0	100	100	59		
BIDDIA										
Landless	240	157	83	34.6	65.4	3.7	7.6	4		
Poor	886	655	231	26.1	73.9	10.3	31.5	7		
Subsistence	672	418	254	37.8	62.2	11.3	20.1	25		
Self-sufficient	792	479	313	39.5	60.5	14.0	23.1	35		
Surplus	1400	329	1071	76.5	23.5	47.8	15.8	134		
Rich	326	38	288	88.3	11.7	12.9	1.8	144		
All forms	4316	2076	2240	52.0	48.0	100	100	28		
JAMIRA										
Landless	583	559	24	4.1	95.9	0.4	5.3	0.5		
Poor	2443	2300	143	5.8	94.2	2.3	22.0	3		
Subsistence	3673	3197	476	12.9	87.0	7.5	30.6	14		
Self-sufficient	3630	2552	1078	29.7	70.3	17.0	24.4	47		
Surplus	3608	1317	2291	63.5	36.5	36.2	12.6	164		
Rich	2848	535	2313	81.2	18.8	36.6	5.1	463		
All forms	16785	10460	6325	37.7	62.0	100	100	37		

*Some hired labour appears against the landless category as some of them rent-in land.
Source : Field Work 1976-77

but share crop-in, also hire some wage labour to cultivate their agricultural holdings. Thus, in the second village, Biddya, a substantial percentage (34.6 per cent) of total labour use by the landless, is wage labour use. In the other two villages, wage labour use as a percentage of total labour use, for the landless, is lower, especially in Jamira where the figure is 4.1 per cent, the corresponding figure for Bajua being 22.5 per cent.

The point is, however, that in the first two villages, Bajua and Biddya, all classes below the surplus class category use substantial wage labour in proportion to their total labour use. Therefore at least for the first two villages, Bajua and Biddya it is not possible to argue that wage labour is entirely a relation between rich hirers of labour and poor labourers. It, in fact, seems to be an intra-class as well as an inter-class relation.

The picture is clearer for Jamira where, compared with the other two villages, the poor use very little wage labour and the rich use substantially more of the proportion of total hired labour in the village than in the other two villages. In this village the rich and the surplus together use 72.8 per cent of the total hired labour for the village compared to 54.1 per cent and 60.7 per cent respectively for Bajua and Biddya. Therefore, in Jamira at least, one could say that wage labour is, in fact, primarily an inter-class relation between the rich and the poor.

Turning from the extent and prevalence of wage labour as seen from the users point of view, we can now take the alternative position and ask to what extent is there a class who depend either exclusively or at least, mainly

on wage labour. In Table 5.2.2 we find that, in fact, not even in the poorest class do all households depend exclusively on wage labour as a means of livelihood. Even among the landless, the percentage of households doing wage labour varies from 57.8 per cent in Bajua to 52.6 per cent in Biddya and 47.8 per cent in Jamira. Therefore, it seems that more than half the households in the first two villages and almost half in the third village in the landless category depend on wage labour for their livelihood while the remaining households in this category depend primarily on other occupations such as artisan work, petty-trades, fishing, weaving and other forms of self-employment which differ from village to village. So far as they are self-employed in these occupations, these landless peasants are not the classical proletariat in a Marxian sense.¹

Thus, even with the present class divisions, wage labour does not seem to be an exclusive means of livelihood for any one class. The wage labourers, of course, could still be defined as a class of proletariat, cutting across this system of classification. Before we go into this, however, let us see in the first place whether or not the 48 landless families in Bajua doing wage labour are exclusively dependent on it.

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1. Here unfortunately we are not looking at the total rural society and therefore not looking at the relations of production in the other sectors of production. It is, of course, possible, for example, that the coir manufacturer in Jamira does not own his 'machine' and that it is in fact owned by the money-lender or the landowner who's land he might be share-cropping. In that case, he is effectively part of the proletariat. He is in fact at the stage mentioned by Marx as immediately preceding manufacture proper i.e. a kind of putting out system.

Table 5.2.2

DOMINANCE OF WAGE-LABOUR (Hired-out)

	(1)	(2)	(3)	(4)	(5) Wage-Labour Supplied as Percentage of Total Labour Days					
					Households					
					0-10%	10.1-25%	25.1-50%	50.1-75%	75.1% +	
<u>BAJUA</u>										
Landless	48	39.3	57.8	34.4	-	8	35	3	2	
Poor	52	42.6	83.9	31.1	-	22	18	12	-	
Subsistence	18	14.7	47.4	27.6	-	4	14	-	-	
Self-sufficient	4	3.3	21.0	10.9	1	3	-	-	-	
Surplus	-	-	-	-	-	-	-	-	-	
Rich	-	-	-	-	-	-	-	-	-	
All Forms	122	100	56.0	28.1	1	37	67	15	2	
<u>BIDYA</u>										
Landless	10	29.4	52.6	43.5	-	-	7	2	1	
Poor	17	50.0	53.1	35.2	-	-	14	3	-	
Subsistence	5	14.7	50.0	22.0	-	5	-	-	-	
Self-sufficient	2	5.9	22.2	20.3	-	2	0	-	-	
Surplus	-	-	-	-	-	-	-	-	-	
Rich	-	-	-	-	-	-	-	-	-	
All Forms	34	100	42.5	31.3	-	7	21	5	1	
<u>JAMIRA</u>										
Landless	22	48.9	47.8	14.1	3	18	1	-	-	
Poor	20	44.4	40.0	7.5	19	1	-	-	-	
Subsistence	3	6.7	9.1	1.0	3	-	-	-	-	
Self-sufficient	-	-	-	-	-	-	-	-	-	
Surplus	-	-	-	-	-	-	-	-	-	
Rich	-	-	-	-	-	-	-	-	-	
All Forms	45	100	26.3	6.2	25	19	1	-	-	

Source : Field Work 1976-77

The right hand side of Table 5.2.2 may answer this question. Here we have a two way classification where the total number of families doing wage work within each stratum are classified in terms of the percentage of their total labour days spent in wage labour. Here we see that in the first village, Bajua, of the 48 landless families as many as 43 households spend 50 per cent or less of their total labour days in wage labour. Only for 3 households is wage labour as a percentage of total labour between 50 and 75 per cent and for 2 households does it exceed 75 per cent. For the poor, the picture is similar. Out of a total of 52, for instance, as many as 40 households spend less than 50 per cent of their total labour days in wage labour. Out of these as many as 22 households spend less than 25 per cent of their total labour days in doing wage labour and none spend more than 75 per cent.

This pattern holds more or less for all the villages. In Jamira in fact there is only one landless family out of a total of 22 doing wage labour that supplies wage labour for more than 25 per cent of its total labour days. None spends more than 50 per cent of its labour days in wage labour.

Thus, this again casts doubt on the existence of a totally expropriated class in the sample villages especially in Jamira. This, however, depends on why they are doing other kinds of work and more importantly what kind of return they are getting from this work.

Table 5.2.3 gives average work days and income per worker of the wage labour supplying households for the three major occupations in the villages.

Table 5.2.3

Average labour-days worked and income received : per day,
per worker.

Villages	OCCUPATION					
	Wage Labour		Coir-making		Fishing	
	Days	Tk	Days	Tk	Days	Tk
Bajua	63	9.7	-	-	18.4	7.9
Biddya	49	6.7	-	-	35.0	9.5
Jamira	26	8.2	128	3.5	-	-

Source : Field Work 1976-77

It seems that on average, with the exception of Biddya, in both Bajua and Jamira the rate of return is significantly higher for wage labour compared to the alternative occupations available. We could, therefore, assume that wage labour would be preferred to other work but because wage labour is not available throughout the year wage labourers are forced into occupations which give a lower rate of return. Not doing wage labour, therefore, for them is not a voluntary choice and therefore they may in fact, be a class of proletariat.

Table 5.2.4 concentrates only on the main employers of wage labour, the self-sufficient, surplus and rich farmers. For these classes we shall see to what extent there is a variation in terms of the amount of wage labour used.

This table shows that in Bajua out of 31 farms in these categories 11 or 35.5 per cent (col.9 and 10) of the

households use more than 75 per cent hired labour and 15 or 48.4 per cent use between 51 and 75 per cent hired labour. So if we made an arbitrary classification and said that farms which use more than 50 per cent hired labour are capitalist, then we might say that in Bajua the majority of the farms are capitalist in this particular restricted sense. Here only 4 out of 31 households in these three categories that is, only 12.8 per cent use less than 50 per cent hired labour. If surplus and rich farmers only are considered, we find that no family uses less than 50 per cent hired labour and in fact, in the rich stratum all five households use over 75 per cent hired labour.

In the two remaining villages, Bidhya and Jamira, the picture is slightly different in that in both villages more than 50 per cent of the households in these three categories taken together (self-sufficient, surplus and rich) use less than 50 per cent wage labour. The figures for Bidhya are 10 (col.3 and 5) out of 19 (col.1) and for Jamira 23 out of 40 households. However, if the self-sufficient stratum is disregarded and only the surplus and the rich strata are taken into account, then the wage labour use pattern for these two villages is not different from Bajua. In Bidhya, when only these two classes are taken into account, only 1 out of 10, or 10 per cent of the households fall into the 50 per cent wage labour use category and as many as 40 per cent in fact use between 75 and 100 per cent wage labour. In Jamira, on the other hand, as many as 16 out of 19, in other words, 84.2 per cent of the households hire more than 50 per cent of their total labour requirement.

Table 5.2.4

DOMINANCE OF WAGE-LABOUR (Hired-in)

	(1)	(2)	Wage-Labour Use as Percentage of Total Labour on all Operated Land*						(10)				
			(3)	(4)	(5)	(6)	(7)	(8)		(9)			
Total Producing House-holds		Percent-age of total House-holds	0 - 25	%	House-holds	26 - 50	%	House-holds	51 - 75	%	House-holds	76 - 100	%
<u>BAJUA</u>													
Self-sufficient	17	89.5	2	11.8	2	11.8	13	76.5	-	-	-	-	-
Surplus	9	81.8	-	-	-	-	2	22.2	7	77.8	5	100	100.0
Rich	5	100.0	-	-	-	-	-	-	-	-	-	-	-
Total	31	88.6	2	6.4	2	6.4	15	48.4	11	35.5	11	35.5	35.5
<u>BIDDYA</u>													
Self-sufficient	9	100	3	33.3	6	66.7	-	-	-	-	-	-	-
Surplus	8	100	-	-	1	12.5	5	62.5	2	25.0	2	25.0	25.0
Rich	2	100	-	-	-	-	-	-	2	100.0	2	100.0	100.0
Total	19	100	3	15.8	7	36.8	5	26.3	4	21.0	4	21.0	21.0
<u>JAMIRA</u>													
Self-sufficient	21	91.3	4	19.0	16	76.2	1	4.8	-	-	-	-	-
Surplus	14	100	-	-	3	21.4	11	78.6	-	-	-	-	-
Rich	5	100	-	-	-	-	1	20.0	4	80.0	4	80.0	80.0
Total	40	92.8	4	10.0	19	47.5	13	32.5	4	10.0	4	10.0	10.0

* by the main employers of wage-labour, i.e. self-sufficient, surplus and the rich classes.

Source : Field Work 1976-77

This, however, by itself is not sufficient information since clearly the surplus producers have to do something to cultivate their excess land and in this they have to choose basically between employing wage labour and share-cropping. So when comparing these two forms of disposing of surplus land we should be able to appreciate properly their relative importance. For the moment what we see is that the rich use more hired labour and the degree to which their use of hired labour is different in every village can be seen in the context of how they tackle the problem of cultivation; whether for instance, they are share-cropping. This will be discussed later. It is clear, however, that on the basis of an arbitrary classification of 50 per cent plus criterion, the surplus and the rich strata in Bidhya and Jamira can be called capitalist just as we have considered the self-sufficient, surplus and the rich, capitalist in Bajua subject to further investigation into other relations of production.

Table 5.2.5 represents an attempt to identify capitalist farmers.¹ Rudra correlated four variables : owner cultivation, extent of wage labour, use of machinery and extent of marketing. He collected data on these variables for farmers owning approximately 30 acres in the Punjab. He wanted to establish the existence of a systematic relation between these variables and in this way to identify the capitalist farmers. This analysis in fact, led to the Indian debate on the mode of production.

1. This is carried out in the manner of Ashok Rudra's early attempt in which he identified the capitalist farmers in the Punjab, excepting that here we are not dealing with either as many variables or using such sophisticated techniques. See Rudra:1970.

Table 5.2.5

WAGE LABOUR USE AND THE EXTENT OF MARKETING*

(1)	(2)	(3)				(4)				(5)				(6)			
		Wage Labour Use as Percentage of Total Labour Use on Operated Land		Wage Labour Use as Percentage of Total Labour Use on Operated Land		Wage Labour Use as Percentage of Total Labour Use on Operated Land		Wage Labour Use as Percentage of Total Labour Use on Operated Land		Wage Labour Use as Percentage of Total Labour Use on Operated Land		Wage Labour Use as Percentage of Total Labour Use on Operated Land		Wage Labour Use as Percentage of Total Labour Use on Operated Land			
Percent marketed (paddy)	Number of Households using wage -labour and marketing (paddy)	0 - 25		26 - 50		51 - 75		76 - 100		0 - 25		26 - 50		51 - 75		76 - 100	
		House-holds	%	House-holds	%												
BAJUA																	
0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1-25	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26-50	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51-75	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
76-100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0-100	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BIDDA																	
0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1-25	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26-50	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51-75	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
76-100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0-100	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
JAMIRA																	
0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26-50	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51-75	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
76-100	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0-100	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* based on surplus and rich farmers only, who predominantly employ wage labour and market a substantial portion of their produce.

Source : Field Work 1976-77

This is an attempt along the same lines if in a simpler and cruder way. I am investigating the relation between use of wage labour and extent of marketing for paddy for the rich and surplus strata put together. On the face of it, the visual pattern of the table indicates that there is a reasonable correlation between the two variables. If a diagonal is drawn, running from top left to bottom right most of the observations seem to be clustered slightly above the diagonal which indicates almost immediately that there may be a correlation; that is households hiring more wage labour, market more. There is in fact a significant difference between those marketing more and those marketing less paddy in terms of wage labour use.¹ In village terms it can be seen that the correlation is strongest in Bajua where 9 (col.6) out of 14 (col.2) or 64 per cent of the surplus producing households hiring between 76 per cent and 100 per cent wage labour market over 51 per cent of their produce.

This clearly shows that there is a capitalist sector in each of the three villages and that it is particularly strong in Bajua. Going back to Rudra, he observed no correlation among his four variables and therefore concluded that there was no capitalism in agriculture in the Punjab. Utsa Patnaik, however, disputes this on the basis that Rudra's test would have held only if capitalism was the dominant mode in the Punjab agriculture.²

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1. Significant at the 95% confidence level. For details see Appendix IV.
 2. See Patnaik:1971a and 1971b. For further details on the Indian debate, see Patnaik:1972a, 1972b, 1972c; Chattopadhyaya:1972a, 1972b; Rudra:1970 and 1974 and Frank:1973.

Otherwise, she stressed, one could not expect any strong relationship between the variables. The point is, we have observed a clear relationship between the two variables we have been considering and this seems to suggest that there is a capitalist sector in these three villages. In fact, if Patnaik was right in saying that this correlation would hold only where capitalism was dominant than one might even be tempted to argue that capitalism is dominant in these three villages especially in Bajua which demonstrates a very strong capitalist base.

While it is quite true that not observing a correlation between Rudra's four variables did not prove that there was no capitalism, I would in fact dispute with Patnaik that while observing this correlation particularly among the rich farmers certainly points to the existence of a sector that can probably be called capitalist at least in some sense of the word, it does not mean that capitalism is dominant. To elaborate this of course, it is necessary to explain what is meant by dominance. Firstly, it involves a quantitative dominance, that is, how many farmers are there in these two categories (surplus and rich) compared with the rest of the farmers and more importantly, what percentage of the total produce do they account for? Then there are questions of dominance in terms of wage labour use and marketing of surplus produce. It is only after these areas of dominance have been looked at that we can say that this sector which we have provisionally called capitalist is in fact the dominant sector.

Another criterion that Patnaik wanted to use was re-investment in agriculture or dynamism. I do not have the data to show how intensive the surplus producers'

production techniques are compared to the other farmers but I have data to show what proportion of their income is spent on production. Table 5.2.6 shows that proportionately the surplus and the rich farmers in all three villages invest a much higher percentage of their income in production than do the other farmers.

This is particularly the case in Bajua where the rich re-invest as much as 25 per cent and the surplus farmers 22.1 per cent of their income in production. To the extent that re-investment is an indication of dynamism, the sector we have provisionally identified as capitalist is certainly dynamic especially in Bajua. In Bajua, in fact, re-investment in agriculture is the single largest overhead expenditure for the surplus producing farmers. This also holds for the rich peasants in Jamira but neither for the surplus farmers in Jamira nor for any of the two surplus producing categories in Biddya is this true. In Biddya in fact, the surplus farmers spend as much as 18 per cent and the rich as much as 32.9 per cent (col.8) on 'others' which includes mainly ceremonial and childrens' educational expenses in the cities. They also spend a high percentage of their income on land purchases which includes urban property. The figures are respectively 31.2 per cent and 21.7 per cent (col.5). So it seems that in Biddya, the surplus of the big farmers tends to be siphoned off into urban property, childrens' education and various forms of ostentatious consumption for example and these are more feudal characteristics than capitalist.

With regard to 'dynamism' I think, however, that Patnaik was wrong in that she was deliberately restricting her definition of capitalism and that in a way is begging the question. Why for instance, should it be assumed that capitalism is always dynamic. Marx of course, did suggest

Table 5.2.6 EXPENDITURE AS A PERCENTAGE OF INCOME

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Production	Subsistence paddy	Shopping (food)	Clothing	Land purchase	Loan (given)	Business Investment	Others ¹	Savings
BAJUA									
Landless	3.2	57.2	17.8	14.5	0.7	0.2	2.5	2.6	1.3
Poor	9.9	38.0	23.8	10.8	-	0.5	2.2	6.1	2.7
Subsistence	9.2	16.9	18.4	15.3	5.6	1.0	6.4	8.7	18.5
Self-sufficient	10.0	5.6	21.1	10.4	22.5	7.3	2.1	7.9	13.1
Surplus	22.1	2.1	16.0	6.2	11.2	12.2	8.6	9.5	10.0
Rich	25.6	-	12.3	6.1	8.9	6.4	3.0	17.9	16.0
All farms	12.7	24.6	17.9	12.0	6.9	4.1	3.9	8.4	9.5
HIDDYA									
Landless	1.8	67.8	13.6	9.4	1.4	-	1.6	3.4	6.9
Poor	3.7	42.8	20.4	12.1	6.9	0.5	3.7	4.9	5.5
Subsistence	6.2	34.2	16.6	10.2	8.3	2.2	2.2	9.5	12.2
Self-sufficient	7.7	13.1	15.6	10.1	31.2	4.2	5.1	5.6	9.3
Surplus	11.0	-	16.8	10.9	21.7	-	0.3	18.0	17.1
Rich	14.1	-	17.3	9.2	-	-	-	32.9	26.3
All farms	6.5	30.3	17.1	10.6	11.8	1.1	2.4	10.1	10.0
JAWIRA									
Landless	1.7	70.0	15.6	9.4	-	0.3	8.7	1.6	0.7
Poor	6.0	43.7	16.1	11.5	0.5	0.6	13.5	4.2	3.6
Subsistence	12.2	30.8	17.5	12.2	-	0.6	12.2	3.9	10.6
Self-sufficient	13.3	12.2	16.1	9.9	-	0.9	18.4	8.6	20.7
Surplus	15.6	0.3	16.3	16.4	5.8	4.4	31.3	10.9	26.9
Rich	18.9	-	14.2	8.7	3.3	-	12.9	15.2	26.7
All farms	10.1	27.5	16.0	10.4	1.4	1.1	15.8	6.7	11.0

1 - Others¹ includes, among other things: ceremonial, medical and children's educational expenses

Source : Field Work 1976/77

this but then he was referring more to European countries and he had a great deal of optimism about the constructive role of capitalism in the colonies. But this again becomes almost a verbal battle. Should a sector, for instance, be called capitalist if it shows all the other characteristics of capitalism but no dynamism? If not what should it be called? There is, as yet, no definitive answer to this, however, I would be inclined to call it backward capitalism.

Another relationship we might look into, is between variations in marketed surplus and the extent of share-cropping. It is in fact, quite possible that large farmers who depend heavily on share-cropping also market a very large portion of their produce. If this is so, then of course the correlation between wage labour and marketing loses some of its relevance. So in fact what we are observing is a correlation between wealth and marketing and not really between one mode of appropriation of surplus and marketing. This will become clearer on analysis of share-cropping behaviour. Of course it stands to reason that of two farmers who have the same amount of land, if one uses wage labour and the other share-crops, then the one who uses wage labour will in fact market more. This can be argued from two directions: (i) because he is cultivating all the land under his own control and collecting the entire produce and he will have more to market. Whereas the farmer who cultivates his land on a share-cropping basis gets only half the crop so he will only have half the amount in the first place to market. (ii) The man who hires wage labour has to pay his labourers

in money¹ and to this extent he is in a way, forced to market. Therefore, in this sense one would indeed expect that rich farmers using wage labour would market more than rich farmers using share-cropping as a mode of surplus appropriation. However, although this seems to be logically quite unassailable we shall still look at the data below and examine the pattern more closely.

In Table 5.2.7 the total labour in agriculture in each of these villages has been broken down into four components. (i) Total wage labour (col.5) whether used on owned or rented-in land; (ii) of the remaining labour, which is of course family labour, family labour used on owned land (col.2); (iii) family labour used on share-cropped land (col.5) and finally (iv) family labour used on land cultivated in forms other than share-cropping (col.8). The last category, however, is very minor and therefore we may disregard it for the moment.²

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1. Cash payment is the dominant mode of payment in Bangladesh (Government of Bangladesh - FAO/UNDP Mission: Agricultural Employment in Bangladesh:1977:14-17).
 2. I do not have labour use figures under different categories of holding i.e. self-managed, share-cropped and other forms and in fact, no farmer was in a position to separate their total labour use in this way. In this table it is assumed that both family labour and hired labour use are uniform under these categories of holdings so that each category absorbs labour in the proportion in which it stands to the total operated area. For instance, if the farmer operates 4 acres of owned and 1 acre of rented-in land so that owned land is 80 per cent and rented-in land 20 per cent of total operated area, then it is assumed that the family labour supplied, as well as hired labour employed, is exactly 80 per cent to owned and 20 per cent to rented-in land. Admittedly, this estimate might tend to over-estimate total labour applied on share-cropped land.

Taking family labour we can see that in the first village, Bajua, of the total family labour 22.4 per cent is used on owned land and 18.3 per cent on share-cropped land. As the difference in labour use between the two categories is slight one might be tempted to say that as forms of appropriation, self-exploitation and share-cropping are almost equally important. In Biddya the situation is similar with 28.3 per cent of family labour employed on owned land and 17 per cent on share-cropped land. But the picture is very different in Jamira where as much as 52.6 per cent of family labour is employed on owned land and only 8 per cent on share-cropped land.

So, from this point of view Jamira seems to approximate more to a peasant economy type of village with considerably more family labour use on owned land than on share-cropped land and also with less wage labour use compared to the other two villages. On the other hand, it was seen earlier that in terms of the polarisation of hired labour use, in that the share of total wage labour use of the top groups was much greater (see Table 5.2.1), Jamira was more capitalist. In other words, the division between the workers and the employers is much sharper here than in the other two villages.

So in so far as wage labour use is an index of capitalism it seems that there is no good reason why we should not say that there is a capitalist sector in these three villages. The point is however, that although wage labour use is a necessary condition, it is not a sufficient condition for locating capitalist production. Before it can be said for certain that there is a capitalist sector in these villages - this is seen in the production

behaviour of the top two surplus producing groups -
it is important for us to show that these farmers are
substantially dependent on the market. In other words
that they use hired labour and sell most of their produce
in the market in order to maximise profit.

This is the basis of the next section.

Section III

Market

Table 5.3.1 and Table 5.3.2 show respectively, marketed agricultural produce, paddy, and non-agricultural produce. The commonly marketed non-agricultural products are coconut and coconut products, mainly coir (especially in Jamira), fish (in Bajua and Bidhya), poultry, betel-nut, pan (chewing leaf), gur (date-palm molasses), and home-grown vegetables.

Table 5.3.1 shows that in none of the three villages does the percentage of households marketing exceed 50 per cent which is our arbitrary quantitative criterion for capitalism. In fact in each of the three villages, less than 40 per cent of the households market paddy. It is 39.4 per cent in Bajua, 40.0 per cent in Bidhya and 35.1 per cent in Jamira (col.1). At the village level, marketed produce as a percentage of total disposable produce is even less and this is 24.6 per cent, 25.1 per cent and 30.7 per cent respectively in the three villages. So, on the basis of this, in so far as marketing is an index of capitalism, it would be difficult to suggest than any one of these villages as a whole is capitalist.

However, on analysis of the class level data, the situation changes. Other than the two poorest classes, in all other groups well over 50 per cent of the households market paddy with the exception of Jamira where the subsistence class does not meet this 50 per cent mark. In the rich farmer class all households market paddy (col.1) and in all the three villages they market more than 50

Table 5.3.1 MARKETED AGRICULTURAL PRODUCE (PADDY)/paddy in maunds, value in taka

	(1) Households marketed	(2) Marketing as % of total HHS	(3) Total Disposable Produce		(4) Total Marketed		(5) % Share Marketed by each class		(6) Marketed	
			(paddy)	(value)	(paddy)	(value)	(paddy)	(value)	As % of disposable produce	Value as % of total cash earnings
<u>BAJUA</u>										
Landless	9	10.8	958	67060	81	5670	3.4	2.8	8.4	3.9
Poor	22	35.5	2003	140210	242	16940	10.3	8.3	12.1	13.8
Subsistence	28	73.7	1735	121450	289	20230	12.3	9.9	16.6	21.0
Self-sufficient	13	68.4	1165	85278	200	14640	8.5	7.2	17.2	32.7
Surplus	9	81.8	1129	94610	220	18440	9.3	9.1	19.5	28.6
Rich	5	100.0	2580	248970	1320	127440	56.1	62.7	51.2	92.0
All forms	86	39.4	9570	757578	2352	203360	100	100	24.6	33.2
<u>BIDJYA</u>										
Landless	2	10.5	248	17360	36	2520	3.3	2.5	14.5	3.7
Poor	8	25.0	950	66500	152	10640	13.9	10.7	16.0	11.3
Subsistence	6	60.0	649	49129	84	6360	7.7	6.4	12.9	20.2
Self-sufficient	7	77.8	805	71323	170	14900	15.6	15.0	21.1	41.6
Surplus	7	87.5	1209	113404	352	33020	32.3	33.3	29.1	62.3
Rich	2	100.0	482	51719	295	31650	27.1	31.9	61.2	100.0
All forms	32	40.0	4343	369435	1089	99090	100	100	25.1	31.7
<u>JAMIRA</u>										
Landless	2	4.3	198	13860	15	1050	0.7	0.6	7.6	0.9
Poor	5	10.0	990	69300	28	1960	1.3	1.0	2.8	1.4
Subsistence	15	45.4	1245	94246	169	12790	8.0	6.9	13.6	11.2
Self-sufficient	19	82.6	1457	127633	519	45490	24.7	24.4	35.6	37.4
Surplus	14	100.0	1726	150852	637	55650	30.3	29.8	36.9	44.2
Rich	5	100.0	1220	115534	734	69540	34.9	37.3	60.2	83.6
All forms	60	35.1	6836	571425	2102	186480	100	100	30.7	27.0

Source : Field Work 1976-77

HH* - Households

per cent of their produce (col.5). However, no other classes sell more than 50 per cent of their disposable produce (col.5), and this gives us another interesting insight in that it shows that the rich in fact, depend on marketed paddy for almost all their cash earnings. The value of their marketed paddy as a percentage of their total cash earnings is 92.0 per cent in Bajua, 100 per cent in Biddya and 83.6 per cent in Jamira.

As regards marketed non-agricultural produce, it can be seen from Table 5.3.2 that for Biddya and Bajua neither at the village level nor at the class level does the percentage of households marketing exceed the 50 per cent mark. In Jamira, however, in the two poorest classes, landless and poor respectively, 63.0 per cent and 74.0 per cent of the households market non-agricultural produce (col.2). This is explained by the widespread practice of coir-making in Jamira and as can be seen from column 7, this accounts for 37.3 and 30.6 per cent respectively of their cash earnings. In other words, one could argue that in Jamira these two groups, in the absence of coir, would have been that much poorer and that much more dependent on the landowners either as share-croppers or as wage labourers. Coir-making, however, has been made possible by what I have called ecologically based diversification in Jamira and to that extent the economic stability of the poorer peasants and in turn their relatively lower dependence on wage labour or share-cropping relations may be explained ecologically.

So it emerges from these two tables on marketed produce that although none of the villages can be said to be capitalist on the basis of a market criterion, there is a small but strong class of capitalists in all three

Table 5.3.2

MARKETED NON AGRICULTURAL* PRODUCE

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Total HH** marketing	Marketing as % of total HH	Total value marketed (Taka)	% share by each class	Value as % of disposable paddy	Value as % of marketed paddy	Value as % of cash earnings
BAJUA							
Landless	21	25.3	24986	31.8	37.2	440.6	17.3
Poor	27	43.5	19652	25.0	14.0	116.0	16.0
Subsistence	17	44.7	23975	30.5	19.7	118.5	24.8
Self-sufficient	8	42.1	3730	4.7	4.4	25.5	8.3
Surplus	4	36.4	4268	5.4	4.5	23.1	6.6
Rich	1	20.0	2000	2.5	0.8	1.6	1.4
All forms	78	35.8	78611	100.0	10.4	38.6	12.8
BIDDYA							
Landless	7	36.8	15440	30.1	88.9	612.7	23.0
Poor	11	34.3	23511	45.8	35.3	221.0	25.1
Subsistence	5	50.0	7634	14.9	15.5	120.0	24.3
Self-sufficient	4	44.4	4396	8.6	6.2	29.5	12.3
Surplus	1	12.5	300	0.6	0.3	0.9	0.6
Rich	-	-	-	-	-	-	-
All forms	28	35.0	51281	100.0	13.9	51.7	16.4
JAMIRA							
Landless	29	63.0	41168	28.5	297.0	3920.7	37.3
Poor	37	74.0	41905	29.0	60.5	2138.0	30.6
Subsistence	15	45.4	30485	21.1	32.3	338.0	26.8
Self-sufficient	8	34.8	15615	10.8	12.2	34.3	12.8
Surplus	2	14.3	13443	9.3	8.9	24.1	10.7
Rich	1	20.0	1591	1.1	1.4	2.3	1.9
All forms	92	53.8	144207	100.0	25.2	77.3	20.8

*Includes coconut and coconut products, mainly coir, (especially in Jamira), fish (especially in Bajua and Biddya), poultry, betel-nut, pan (chewing leaf), gur (date-palm molasses), goal-pala (thatching leaf) and home-grown vegetables.

**Households

Source : Field Work 1976-77

villages which are identified with the rich and perhaps to a lesser degree with the surplus farmers. The tables also show Jamira as the most commercial village. This, however, does not make Jamira more of a capitalist village as has been seen in the analysis of wage labour use. In terms of wage labour use it was seen that in Jamira, production is in fact predominantly based on family labour (62.0 per cent; Table 5.2.1, col.5). In addition, in Jamira each class uses proportionately more family labour than their corresponding classes in Bajua and Bidhya. And as has been explained earlier, family labour use is an indicator of peasant or petty commodity production.

One reason for Jamira being the more commercial of the three villages, in other words being more involved in the market is, of course, its accessibility to the national market (Chapter 3). The other, however, is the form of payment as can be seen from Table 5.3.3. This table shows that 90 per cent of payments to hired labourers are made in cash as opposed to crop payment, which is normally paddy. Comparative figures for Bajua and Bidhya are 59 and 29 per cent respectively.

As argued earlier (Chapter 4), wage labour paid in cash implies a higher level of commercialization because the labourers themselves then have to buy their rice and other commodities from the market. If, on the other hand, payment is made in paddy, which is consumable there is no need for the labourers to go to the market.¹ To the extent that crop payment demonstrates a lack of dynamism, it could be seen as a feudal characteristic and in this sense Bidhya with 71 per cent of its total payments made to wage labourers in kind, is more of a feudal village.

1. There is no evidence to show that labourers sell their crop wages although 17.2 per cent of Food for Relief Workers, paid in wheat, sell their share in the market. (Economic and Nutritional Effects of Food for Relief Work Projects, Institute of Nutrition and Food Science, University of Dacca, March 1978).

Table 5.3.3

FORMS OF PAYMENT

	Wage-Labour		Contract Labour*			
	Cash	Group	Cash	Group	Cash	Group
	(Taka)	% of total payment	(Taka)	% of total payment	(Taka)	% of total payment
BAJUA	55292	59	-	-	38452	41.0
BIDDYA	5466	29	-	-	13519	71.0
JAMIRA	49833	90	-	3.6	3540	6.4

*contract labourers are wage-labourers who are hired for a fixed period varying between a week and a year (usually for a season).

Source : Field Work 1976-77

Having examined the marketing behaviour of the farmers in the sample villages we may now return to the crucial question. Is it possible to say that any of the three villages are distinctly capitalist? Or that there is a capitalist sector in these villages?

To the extent that wage labour use and marketing behaviour are indices of capitalism, it seems that the rich farmers and also to a large extent the surplus farmers in all three villages do constitute a component of the capitalist mode of production in agriculture in Bangladesh. This is, one would say, an extension of the national capitalism into the rural area. Even though, unlike a typical industrial enterprise, the families of the well-endowed strata participate to some extent in the production process, their dependence on wage labour is heavy. Secondly, their dependence on the market is also substantial in that a large part of the produce is sold.

However, we must hesitate before applying the capitalist label to this form of production since we do not know how stable these enterprises are, and to what extent they are still subject to divisions and partitions through the laws of inheritance and through demographic pressures which could mean transformation into something other than capitalist enterprises.

If it is still the tendency for an enterprise to stay dominant for sometime and then, due essentially to demographic pressures to be fragmented and become small peasant property and subsistence or semi-subsistence, then one might have some doubts about the reasonableness of calling this a capitalist form. Because it is expected that one of the characteristics of capitalist production

is that it reproduces itself at the same level at least, and even on an expanded scale.¹

Although this argument has some force, I do not have adequate data to be able to pronounce definitely that these farms are bound to be fragmented on the death of the current owner. However, it is possible that the current owner is in fact investing enough in (a) his childrens' education and (b) in other forms of property especially urban property and other forms of assets to ensure that the property need not be divided when he dies and one son may be able to take it over intact. Without adequate information on this it is not possible to say for certain whether this form of production is stabilizing or not.

The second reason for hesitation before calling this form of production capitalist, follows from the first. These enterprises even though they meet the two basic criteria, i.e. commodity production and wage labour, with the exception of the ones in Bajua, do not display another characteristic expected of a capitalist enterprise which is re-investment and expansion, a point that Utsa Patnaik made much of and has been dealt with in some detail earlier. The question we need to ask in this context is whether in fact, capitalism can

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1. Against this of course, one can argue that even capitalist enterprises go bankrupt and dissolve. But this is essentially a different process. Bankruptcy and subsequent dissolution is a process that is itself determined by the market. For instance, a large farm may fail because of a drop in prices and the farmer would have to sell off his land and move away. This would still be following the laws of capitalism. But the fact that sheer growth in numbers can still play a dominant role would indicate that even if it is capitalism, it is not still stabilized or self-sustaining capitalism.

fulfil this historic 'mission' of dynamism (Lenin:1964: 602-607) in the periphery.

It may be that the basis of underdevelopment rests on the fact that it cannot. In other words when capitalism takes root in a backward economy and in a backward sector of production, it cannot attain that sort of dynamism. The reason being partly to do with the nature of the pre-existing agrarian structure. For example, part of the reason may well be the nature of landed property especially the scattered form of peasant property so that it is difficult to consolidate; partly it is a question of available technologies and the extent to which farmers can depend on them, it takes time to acquire confidence in new techniques of production; and partly it is a question of the state of the national market - the limited urbanisation and industrialisation which leads to a limited and uncertain market. So it may be reasonable to say that stagnation is a characteristic of what I have called backward capitalism.

The third reason for questioning the characterisation of this particular sector as capitalist, is the relative immobility of the major means of production. While legally, land is indeed a commodity in that people can freely sell it, in point of fact it is still mainly inherited. It is not an area where one buys an enterprise and starts operating it; nor is it like buying a share in an enterprise. It does not depend for its financing on any organised capital market. This, however, probably says more about the stage of development of capitalism rather than whether it is capitalism or not. Land is a very special sort of property and it will always carry

with it some non-economic values which inhibit its becoming as freely transferable as shares in an industrial corporation. To this extent perhaps the tendencies towards the centralization of capital and the concentration of capital will always be less in agriculture than in industry.

There are of course, other purely technical reasons. For instance, economies of scale are probably less important in agriculture and more so especially in rice cultivation than in wheat cultivation. So for all these reasons, capitalism in agriculture will always be different from capitalism in industry and this has in fact, been pointed out by Marx and especially by later writers such as Lenin and Kautsky.¹

On the whole, therefore, these reservations need to be kept in mind. So I would submit, on the evidence, that there is a capitalist sector in these villages and that in the case of Bajua this is probably the dominant sector. Therefore, these two top groups can be identified as local capitalists who are a segment of the national capitalist class. Politically, there may be differences of interest or a lack of awareness of the unity of their class position, but at the economic level they constitute a fraction of the capitalist class.

Corresponding to the capitalist class in these villages,

1. See Lenin, V.I.: The Development of Capitalism in Russia; Progress Publishers, Moscow: 186-190, 315-322, 373-388, 546-556; also Banaji, J.: Summary of selected parts of Kautsky's The Agrarian Question in Economy and Society Vol.5, No.1, February 1976.

we may identify a class of wage labourers who are hired by the capitalist farmers to work in their fields. In the sense that they are 'separated' from the means of production, and the surplus value they produce is appropriated by the class of capitalists, they are the de facto proletariat. So at this stage we have identified two classes.

The next question that logically arises is whether all the surplus producing farmers are capitalists? If so does this mean there are no surplus producing farmers whom we can call feudal? Is there an element of feudalism or semi-feudalism as some prefer to call it, in these three villages? These questions are examined in the next section.

Section IV

Share-Cropping

This leads us naturally to a search for a feudal sector, identification of which must involve an analysis of rent relations.

Table 5.4.1 gives a broad breakdown of the three villages at the aggregate level, in terms of the extent of pure owner operated, renting-in and renting-out households and area. Rent relations exist between the households renting-in and the households renting-out. On the other hand the first group, the pure owner cultivator may be identified with the pure peasant mode. This peasant sector varies from 29.8 per cent in Bajua to 33.7 per cent in Biddya and 38.6 per cent in Jamira in terms of the number of households and these households seem to own more land in proportion to their numbers than, say the owner cum tenants. The owner cum tenants are generally the dependent farmers who normally rent-in as much land as they can farm with their family labour. The households renting-out, on the other hand, own disproportionately more of the total land of the village which is of course what one would expect because, by and large, the renting-out households are the richer households. Although some poor households rent-out some land as we shall see later, on balance clearly it seems that it is the rich who rent-out the majority of the rented-out land. Thus, it is the differential access to land that determines the relations of dominance and dependance in rent relations.

Here of course, it should be noted that, even within the broad category of rent, there are different forms of having land cultivated by others, wage labour apart. The dominant

Table 5.4.1

EXTENT & DISTRIBUTION OF TENANCY/village level

	Pure Owner Operated Households		Renting-In* Households						Renting-Out Households							
	House holds	% of total house holds	Area Owned		House holds	% of total house holds	Area Owned		Rented area	% of owned area	House holds	% of total house holds	Area Owned		Rented area	% of owned area
			Acres	%			Acres	%					Acres	%		
BAJUA	65	29.8	174.2	33.9	59	27.1	93.5	18.2	346.45	370.5	29	13.3	246.1	47.9	145.3	59.0
BIDDYA	27	33.7	60.1	32.6	19	23.7	41.0	22.2	91.37	222.8	19	23.7	83.2	45.1	54.0	64.9
JAMIRA	66	38.6	129.3	49.1	43	25.1	43.0	16.3	43.48	101.1	23	13.4	90.9	34.5	27.6	30.4

* includes 5 households which rent both in and out.

Source : Field Work 1976-77.

form in Bangladesh, as is well known, is share-cropping and Table 5.4.2 shows the extent to which share-cropping is dominant. This table shows that, out of the rented-in land between 82 per cent (Jamira) and 87 per cent (Bajua) is share-cropped and if we take rented-out land then share-cropped land varies from almost 71 per cent in Bidhya to as much as 98 per cent in Bajua. The difference between renting-in and renting-out figures, which occurs quite frequently, may be due partly to reporting error and partly to the fact that Bajua and Bidhya are both areas in which absentee landlordism is fairly extensive. For instance one may deduce from the higher percentage of rented-out land in Bajua and in Bidhya compared to rented-in land under share-cropping that share-cropping out is preferred to other forms by the absentee landlords. This would explain why share-cropping is more preponderant under renting-out.

Table 5.4.3 gives an idea of the importance of share-cropping. Because share-cropping is the dominant form of rent relations I have decided to limit this discussion to share-cropping.¹

This table indicates the importance of share-cropping as a mechanism of surplus appropriation by showing what

1. However, it must be remembered that, as we shall see later, among the rich and surplus farmers the other forms of rent relations, especially from the renting-in point of view, can be quite important. But since, in any case they rent in very little land on the whole, it is not very relevant. Therefore, I shall concentrate on share-cropping which is quantitatively dominant and is much more in accord with the concept of feudalism as it is understood in the South Asian context.

Table 5.4.2 EXTENT AND DISTRIBUTION OF SHARE-CROPPING/village level

Rented-In				Rented-Out			
Share-Crops		Other Forms		Share-Crops		Other Forms	
As % of rented-in house-holds	As % of rented-in area	As % of rented-in house-holds	As % of rented-in area	As % of rented-out house-holds	As % of rented-out area	As % of rented-out house-holds	As % of rented-out area
100	86.7	3.4	13.3	100	98.2	10.3	1.8
100	85.7	29.4	14.3	47.4	70.8	63.1	29.2
79.1	82.3	25.6	17.7	65.2	84.8	47.8	15.2

Source : Field Work 1976-77

Table 5.4.3

CROP-SHARE PAID AND RECEIVED/village level

	Total disposable paddy (maunds)	Crop-Share/maunds			% of Total Produce		
		Received	Paid	Net received	Received	Paid	Net received
BAJUA	9570	726	1642	-906	7.6	17.1	-9.6
BIDDYA	4343	442	622	-180	10.2	14.3	-4.1
JAMIRA	6836	306	394	-88	4.5	5.8	-1.3

Source : Field Work 1976-77

percentage of total produce is extracted as share-rent. Here again there is a difference between the share reported as being received and the share reported as being paid. As before, part of the difference is undoubtedly due to the presence of absentee landlords. In Bajua, for example, share-paid amounts to 17.1 per cent of the gross produce whereas share-received amounts to only 7.6 per cent. One may perhaps deduce that, reporting errors apart, the balance is what goes out of the village to the absentee landlords. Similarly in Biddya, share-received is 10.2 per cent of total produce and share-paid 14.3 per cent. This also could well be because absentee landlords take away their share. In Jamira, on the other hand, the difference is much less. As absentee landlordism is insignificant, this discrepancy could be explained by the apparently universal phenomenon that those who rent-out land tend to understate the amount of land that they have rented-out so that they will also understate the amount of the crop-share received.

In order to form an idea of the precise way in which share-cropping relates tenants and landlords and in particular whether this relation approximates to anything we might want to call feudal, it is necessary to look at the precise inter-class relations. These can be examined using Table 5.4.4 and Table 5.4.5 which give data on households renting-in land and renting-out land respectively.

Here we can get some idea of the importance of share-cropping for different classes. It is important to point out, following our argument in the last chapter, that if share-cropping has to have a significant effect on the forces of production and broadly on the dynamics of reproduction, then the household which is only renting must be to an extent critically dependent on the rent relation. So let us say that households above subsistence

Table 5.4.4

EXTENT OF TENANCY/HOUSEHOLDS AND AREA

	Rented-In				Share-Cropper				Other Forms				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
As % of total HH*	% share of total HH*	As % of owned area	% share of each class	Rented area as % of owned area of HH*	As % of rented HH*	% share of total HH*	As % of rented area	% share of total	As % of rented HH*	% share of total	As % of rented area	% share of total	
<u>BAJUA</u>													
Landless	21.7	30.5	-	22.1	-	100.0	30.5	100.0	25.5	-	-	-	-
Poor	37.1	39.0	185.1	32.8	578.0	100.0	39.0	100.0	37.9	-	-	-	-
Subsistence	28.9	18.6	68.8	19.4	289.0	100.0	18.6	99.0	22.2	9.1	50.0	9.9	1.4
Self-sufficient	21.0	6.8	13.6	3.5	86.9	100.0	6.8	91.6	3.6	25.0	50.0	8.4	2.2
Surplus	18.2	3.4	41.5	12.4	229.0	100.0	3.4	59.7	8.5	-	-	40.3	37.7
Rich	20.0	1.7	20.6	9.7	188.0	100.0	1.8	19.8	2.2	-	-	80.2	58.7
All forms	27.1	100.0	67.4	100.0	370.5	100.0	100.0	86.7	100.0	3.4	100.0	13.3	100.0
<u>EDDYA</u>													
Landless	10.5	11.8	-	17.3	-	100.0	11.8	65.1	13.1	50.0	20.0	34.9	42.2
Poor	21.9	41.2	88.0	29.8	345.0	100.0	41.2	83.4	29.0	28.6	40.0	16.6	34.8
Subsistence	30.0	17.6	80.2	21.1	339.0	100.0	17.6	100.0	24.7	-	-	-	-
Self-sufficient	22.2	11.8	29.7	12.6	148.0	100.0	11.8	73.9	10.9	100.0	40.0	26.0	23.0
Surplus	37.5	17.6	29.0	19.1	89.3	100.0	17.6	100.0	22.3	-	-	-	-
Rich	-	-	-	-	-	-	-	-	-	-	-	-	-
All forms	21.2	100.0	49.6	100.0	222.8	100.0	100.0	85.7	100.0	29.4	100.0	14.3	100.0
<u>JANTHA</u>													
Landless	15.2	16.3	-	26.3	-	85.7	16.2	96.2	30.7	14.3	9.0	3.8	5.6
Poor	42.0	48.8	55.3	35.4	125.0	85.7	48.6	77.3	33.2	23.8	45.4	22.7	45.4
Subsistence	24.4	18.6	12.3	14.4	45.3	100.0	21.6	59.4	17.2	12.5	9.0	1.6	1.3
Self-sufficient	26.1	13.9	15.8	20.6	70.1	66.7	10.8	59.2	14.9	66.7	36.5	40.7	47.6
Surplus	7.1	2.3	1.9	3.3	35.1	100.0	2.7	100.0	4.0	-	-	-	-
Rich	-	-	-	-	-	-	-	-	-	-	-	-	-
All forms	25.1	100.0	16.5	100.0	101.0	86.0	100.0	82.3	100.0	25.6	100.0	17.7	100.0

HH* - Households

Source : Field work 1976-77

Table 5.4.5

EXTENT OF TENANCY/HOUSEHOLDS AND AREA

	Rented Out												
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
As % of total HH*	% share of total	As % of total area of all HH	% share of total	Rented-out area as % of owned area of renting-out HH	Share-Cropped				Other forms				
					As % of rented-out HH	% share of total	As % of rented-out area	% share of total	As % of rented-out HH	% share of total	As % of rented-out area	% share of total	
PAVVA													
Landless	17.7	37.9	24.6	10.4	93.3	100.0	37.9	82.7	8.7	27.3	100.0	17.3	100.0
Poor	13.1	17.2	15.4	10.4	60.7	100.0	17.2	100.0	10.5	-	-	-	-
Subsistence	21.0	13.8	16.6	10.0	56.6	100.0	13.8	100.0	10.2	-	-	-	-
Self-sufficient	54.5	20.7	37.7	26.8	62.0	100.0	20.7	100.0	27.3	-	-	-	-
Surplus	60.0	10.3	37.9	42.4	52.9	100.0	10.3	100.0	43.2	-	-	-	-
Rich	13.3	100.0	28.3	100.0	59.0	100.0	100.0	98.2	100.0	10.3	100.0	1.8	100.0
PIDDYA													
Landless	34.4	57.9	53.6	30.7	89.1	27.3	33.3	15.7	6.8	90.9	83.3	84.3	86.5
Poor	10.0	5.3	16.6	7.4	100.0	100.0	11.1	75.0	7.8	100.0	8.3	25.0	6.3
Subsistence	33.3	15.8	13.4	9.4	30.5	33.3	11.1	100.0	13.3	-	8.3	5.2	4.2
Self-sufficient	25.0	10.5	23.7	26.5	62.4	100.0	22.2	94.7	35.4	50.0	-	-	-
Surplus	100.0	10.5	46.7	25.9	46.7	100.0	22.2	100.0	36.6	-	-	-	-
Rich	23.7	100.0	29.4	100.0	64.9	47.4	100.0	70.8	100.0	63.2	100.0	29.1	100.0
AVINA													
Landless	14.0	30.4	14.0	14.2	68.6	42.8	20.0	49.9	8.3	71.4	45.4	50.1	46.7
Poor	15.1	21.7	6.7	12.2	29.9	40.0	13.3	69.8	10.1	100.0	45.4	30.2	24.3
Subsistence	26.1	26.1	13.4	27.6	36.3	83.3	33.3	64.0	27.3	16.7	9.1	16.0	29.1
Self-sufficient	14.3	8.7	10.8	29.4	41.9	100.0	13.3	100.0	34.7	-	-	-	-
Surplus	60.0	13.0	8.6	16.5	13.6	100.0	20.0	100.0	19.5	-	-	-	-
Rich	13.4	100.0	10.5	100.0	30.4	65.2	100.0	84.8	100.0	47.8	100.0	15.2	100.0

HH* - Households

Source : Field work 1976-77

level by definition can make do even without share-cropping so that for them rent is not a crucial factor even if they do rent-in land which as we will see, they do. But for those below subsistence one could say that they cannot do without share-cropping and therefore in their economy, rent plays an important role. We see, for example, that although the percentage of share-croppers in different classes varies somewhat from village to village by and large, as we would expect, few rich or surplus families rent-in land. In the second village Biddya, however, a sizable number of surplus and self-sufficient farmers appear to be engaged in renting-in land. One way of looking at this would be that 37.5 per cent of the surplus and 22.2 per cent of the self-sufficient farmers rent-in land (Table 5.4.4; col.1). Another way would be to look at column 2 which shows that of all those who rent-in land, 17.6 per cent are from the surplus category and 11.8 per cent are from the self-sufficient category. Whereas for Bajua only 1.7 per cent of all share-croppers are from the rich category and 3.4 per cent from the surplus category. Therefore, we can see that share-cropping is, by and large, mostly done by the poorer classes and especially by the poor category as defined here. The poor here are the modal class in terms of involvement in share-cropping in the sense that in every village, of the total number of share-croppers, the larger proportion comes from the poor class. The figures are 39 per cent in Bajua, 41.2 per cent in Biddya and 48.8 per cent in Jamira (col.2).

In terms of rented-in land as a percentage of owned land in every village it is the poor class who take in more land. In Bajua they take in 185.1 per cent of their owned area (col.3), that is, they take in almost twice as much as they own. So clearly if these households were

deprived of access to land, they would be considerably worse off and probably could not, in fact, survive. In terms of produce, assuming that the productivity of the share-cropped land and owned land is about the same, they get almost half their produce or paddy income from share-cropping.

In Bidhya, the percentage of share-cropped land to owned land for the poor is 88 per cent and in Jamira it is only 55.3 per cent (col.3). So dependence on share-cropping seems to be lower in Jamira. One could say that if in Jamira the poor were suddenly denied access to land by the rich farmers for share-cropping, then they would lose only about one-sixth of their total income. Although the effect of this could well be catastrophic, they would probably not starve.

The other classes are not heavily dependent on share-cropping in any of the three villages except perhaps the subsistence households especially in Bajua and in Bidhya. And that not so much perhaps in terms of the number of families (col.1) as in terms of land rented-in as a percentage of owned land. The figures are 68.8 per cent for Bajua and 80.2 per cent for Bidhya (col.3). So in these two villages one might say that the poor and the subsistence are critically dependent for their survival on share-cropping. And to that extent we can identify this with a feudal relation.

Another point that should be investigated is the source of this land that is rented-in. Does it, for instance, define a reasonably clear relation between the poor and the rich? Table 5.4.5 showing the distribution of rented-out land in the three villages indicates this to be so.

For the village as a whole, the number of households renting-out (col.1) is 13.3 per cent in Bajua, 23.7 per cent in Biddya and 13.4 per cent in Jamira. So they are not a very small minority. As we would expect, the extent of participation in renting-out land varies directly with extent of landholding, with fewer of the poor farmers participating in share-cropping out land and the extent of participation increasing as one moves up the hierarchy of strata. For instance, in Bajua 60 per cent of the rich farmers rent-out land (col.1) and they rent-out 52.9 per cent (col.5) of their owned land. In other words a little more than half of their land is rented-out.

Although in terms of percentage of owned land, the poor seem to rent-out more of their land, it is because they have so little land that those who rent-out tend to rent-out all their land usually because they are busy doing something else, wage labour, fishing or coir-manufacturing for instance. In Bajua, in fact, all the households who rent-out in every stratum rent-out more than half their land.

In Biddya, on the other hand, 34.4 per cent of the poor rent-out (col.1) and they rent-out 89.1 per cent of whatever land they have (col.5). In the subsistence group only 1 household rents-out land and they rent out all their land. The percentage of share-cropped out area drops for the self-sufficient class and then rises again for the surplus and the rich, the figures for the last two classes being 62.4 and 46.7 per cent respectively (col.5).

The pattern, however, is a little different for Jamira where 14 per cent of the poor rent-out some land (col.1) and this is 68.6 per cent of their owned land (col.5).

Below this stratum, the percentages drop considerably but percentage-wise the rich seem to rent-out a very small proportion of their land. Although 60 per cent, or 3 out of 5 rich peasants rent-out land they in fact rent-out only 13.6 per cent of their land. But this is probably due to the fact that in Jamira even the rich are not very wealthy in terms of land ownership so that they prefer to retain most of it for their own cultivation.

What can be deduced from the share-cropping relations in the rental market? There seem to be two distinct sources for the land that is available for share-cropping. One, from the poor and the subsistence and the other, from the surplus and the rich strata. But clearly, the two rent-out for very different reasons. When the poor rent-out their land it is because they need to free themselves for other activities and it is hardly worth their while retaining a small part of their land, which is very small anyway, so those who rent-out land mostly rent-out all their land. It is also evident that their land is mostly taken up by richer farmers. The poor farmer's piece of land which may be contiguous with the richer farmer's plot of land, is usually taken up by the latter for obvious reasons.¹

So this certainly is not share-cropping as a feudal relation, it is the opposite in fact. On the other hand, we see the rich renting-out their land, not because they need to free themselves for other activities, though in exceptional circumstances this may well be the case, but because they have more land than can be cultivated by family labour. But of course then the question arises as to what are the decisive factors in the farmers' choice between cultivating surplus land with wage labour or share-cropping out. We have already seen that the

1. Field work 1976-77.

rich are very large consumers of wage labour. The question is whether within the rich or the surplus farmers themselves it is possible to distinguish between those who mostly cultivate with wage labour and those who mostly depend on share-cropping. This has been tried but no clear distinction could be made between the two. The rich farmers and the surplus farmers do not neatly fall into one or the other category, they depend both on wage labour and share-cropping.

However what we have seen in terms of a farmer's choice between share-cropping out his land and cultivating it with wage labour, is that partly it is determined by the dispersion and distance of his plots from the homestead and partly by the extent of market penetration in the sense that this presupposes less share-cropping and more wage labour use.

One might also argue in so far as the motivation of the surplus producer is concerned whether he chooses to have share-croppers or wage labour will depend strictly on economic calculations. In a way, therefore, he is acting as a profit maximiser. Because the options are available to him, he will choose between the two forms of payment for labour and will choose the one that is most advantageous to him. One could ask however, and this is something for which time series data would be necessary, whether these two modes of surplus extraction are fighting for dominance. Does one try to erode the other? Does the situation get more polarised if, say, the rich get more land? Is the tendency for both these modes to grow at the same rate so that if a man acquires ten extra acres of land he would give approximately half of it over to wage labour and half of it to share-cropping so that the two forms of surplus extraction remain in the same proportion to each other?

The question is, are we justified in saying that the two forms of surplus appropriation represent two distinct relations of production or are they just two different ways of adjusting to family labour and land in balance ? Under what circumstances does a relation of surplus appropriation represent a relation of production ?

It would perhaps be a little simplistic to say that just because the same household does both, it means that the two forms of surplus appropriation are not two distinct relations of production. This would be confusing different levels of analysis - the empirical and the abstract. At a theoretical level there is no reason why the same physical household should not belong to two different modes of production and when they are being distributed as agents in different modes of production there is no reason why the same household cannot participate in both.

The question, however, is not quite that. Basically, there are three criteria in identifying a relation of production which have all been raised earlier. These are, firstly whether it makes a significant difference to the forces of production, secondly whether it makes a difference to the degree of market penetration and lastly whether it makes a difference at the political and ideological levels. However, I do not have the relevant data to find out one way or another. Some data on free labour supplied by tenants, which will be discussed below does seem to indicate that the share-cropping relation has some personalised, paternalistic and dependence elements built into it which are absent in the case of wage labour. But at this stage it is not possible to know how important these are and, whether they justify talking in terms of a different mode of

production still remains to be seen. It is necessary to establish for example, whether this free labour is supplied in the sphere of production (Althusser:1977:232).¹ If it is, that is, if this free labour is labour done by the share-cropper on the landowners land for cultivation then we can say that it has a significant effect on production relation and is a relation of production. But if the free labour consists mostly of odd jobs for the household then this particular line of reasoning cannot be followed through.

The part of the economy of the rich peasants which is based on wage labour and commodity production is clearly identified with the agricultural sector of the national capitalism. But does this mean the part of the rich peasant's economy which is based on share-cropping may be identified as representing in some way a vestige or an element of feudalism, or 'semi-feudalism' in the rural economy.

Semi-feudalism is a term which has not been properly defined anywhere. It is suggested that it is almost feudal but not quite; therefore it is necessary to specify in what way it differs from feudalism and indeed in what way it resembles feudalism. One might say that it resembles feudalism in that the mode of surplus extraction is rent and in this context particularly rent in kind. One might also say that it resembles feudalism to the extent that there are some personal ties of dependence between the share-cropper and the landowner in that the landowner gets some free labour from the tenant. But then, there is also a reverse flow, admittedly insignificant, of occasional gifts on ceremonial days etc. What is however, most important is that there is no link between disputes and the landlord-tenant relation. In

1. In Althusser, L and Balibar, E:1977: Reading Capital: London: New Left Books.

other words, at the nucleus of frictions that may be observed in these villages there does not tend to be the landlord and his share-croppers. So on balance, it is difficult to say at this stage whether or not there is feudalism or semi-feudalism in any of the three villages.

As regards the argument that there was feudalism at one stage and that share-cropping is a remnant of a form that was once wide spread and may have been the dominant form (which is of course historically inaccurate¹), I would argue that it is a myth that share-cropping was a widely prevalent form of surplus extraction in Bengal and that share-cropping today is a vestige of this feudalism.

Table 5.4.6 basically bears out what was demonstrated in the earlier table about the direction of the surplus flow through the share-cropping relation. Of course, on balance, it is the rich and the surplus classes (except in Bidhya where it is the rich only) who are the net receivers (col.4) and the rest of the strata especially the poor and the subsistence are the net payers of crop-share.

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1. There might have been share-cropping before or even during Moghul times because on the evidence (see Habib, I: The Agrarian System of Moghul India 1556-1707: London, Asia Publishing House: 1963) in Bengal the peasants were paying rent in cash for a long time and certainly during the Moghul period. In fact it appears from some of the settlement reports that share-cropping or some form of rent in kind was more a result of market penetration and of zamindari being taken over by money lenders, traders and such people who had an interest in getting produce in kind. In fact both Ascoli in Dacca and Jack in Khulna, especially the latter, mention the reverse commutation of cash rent into produce rent as one of the greatest scourges for peasants misery. Not only the landlords, most of

Table 5.4.6 CROP-SHARE AS A PERCENTAGE OF DISPOSABLE PRODUCE/paddy in maunds

	(1) Total Disposable Paddy	(2) Crop-Share		(3) Paid	(4) Net Received (+) and Paid (-)	(5) Percentage of Total Produce		(6) Paid	(7) Net Received	(8) Percentage by Each Class		(9) Paid
		Received	Paid			Received	Paid			Received	Paid	
<u>BAJUA</u>												
Landless	958	-	479	479	-479	-	50.0	50.0	-50.0	-	29.2	29.2
Poor	2003	95	621	621	-526	4.7	31.0	31.0	-26.3	13.1	37.8	37.8
Subsistence	1735	87	335	335	-248	5.0	19.3	19.3	-11.3	12.0	20.4	20.4
Self-sufficient	165	60	62	62	-2	5.1	5.3	5.3	-0.2	8.3	3.8	3.8
Surplus	1129	215	110	110	115	19.0	9.7	9.7	10.2	29.6	6.7	6.7
Rich	2580	269	35	35	234	10.4	1.3	1.3	9.1	37.0	2.1	2.1
All Forms	9570	726	1642	1642	-906	7.6	17.1	17.1	-9.6	100	100	100
<u>BIDDYA</u>												
Landless	248	-	73	73	-73	-	29.4	29.4	-33.3	-	11.7	11.7
Poor	950	121	209	209	-88	12.7	22.0	22.0	-9.3	27.4	33.6	33.6
Subsistence	649	30	143	143	-113	4.6	8.3	8.3	-19.4	6.8	23.0	23.0
Self-sufficient	805	32	67	67	-35	4.0	7.2	7.2	-4.3	7.2	10.8	10.8
Surplus	1209	89	130	130	-41	7.4	10.7	10.7	35.3	20.1	20.9	20.9
Rich	482	170	-	-	170	35.3	-	-	35.3	38.5	-	-
All Forms	4343	442	622	622	-180	10.2	14.3	14.3	-4.1	100	100	100
<u>JAMIRA</u>												
Landless	198	-	96	96	-96	-	48.5	48.5	-48.5	-	24.4	24.4
Poor	990	24	155	155	-131	2.4	15.6	15.6	-13.2	7.8	39.3	39.3
Subsistence	1245	25	67	67	-42	2.0	5.4	5.4	-3.4	8.2	17.0	17.0
Self-sufficient	1457	91	60	60	31	6.2	4.1	4.1	2.1	29.7	15.2	15.2
Surplus	1726	96	16	16	80	5.6	.9	.9	4.6	31.4	4.1	4.1
Rich	1220	70	-	-	70	5.7	-	-	5.7	22.9	-	-
All Forms	6836	306	394	394	-88	4.5	5.8	5.8	-1.3	100	100	100

Source : Field Work 1976-77

The three villages appear fairly uniform in this table with only minor differences. For example in Jamira the net receivers are the three top groups whereas in Bajua it is the two top strata and in Biddya only the rich. So they are the only ones who, on balance, rent-out land and the others, on balance, rent-in land.

If we take share-paid as an index of the importance of share-cropping (col.6) the figures of 17.1, 14.3 and 5.8 respectively for Bajua, Biddya and Jamira corroborate the trend in Table 5.4.4 (col.5). On the other hand in terms of percentage share paid by each stratum (Table 5.4.6; col.9) the figures clearly agree with the percentage share of total rented-in land figures (col.9) in Table 5.4.4.

It is hoped that Table 5.4.7. will demonstrate how important share-cropping is as a source of income for the rich and the surplus farmers and here I suggest a tentative dividing line at 50 per cent and see whether we can in fact call feudal those farmers who receive more than half their disposable paddy from the share-cropping relation as share rent. We find that in none of the villages is there a single farmer who receives more than half his disposable produce from crop share. In Biddya there are two farmers who receive between 30 and 40 per cent of their disposable produce from crop share and in the two remaining villages all the farmers who rent-out land receive less than 30 per cent.

1. Continued from previous page.

whom did not have the ryoti rights in land, collected rent in cash, but the peasants themselves when they were renting land to what was called the under ryots, were mostly collecting rent in cash and not in kind (see Ascoli:1921:10-30; Jack:1918:72-73; Allen:1912:83, 87-88).

Table 5.4.7

SHARE-RENT AS A PERCENTAGE OF DISPOSABLE PADDY

	Total house holds renting -out	%	Paddy received from share-cropping out as percentage of total disposable paddy													
			0 - 10		11 - 20		21 - 30		31 - 40		41 - 50		50 +			
			House holds	%	House holds	%	House holds	%	House holds	%	House holds	%	House holds	%		
<u>BAJUA</u> Surplus Rich	6 4	54.5 80.0	2	50.0	3 2	50.0 50.0	3	50.0	-	-	-	-	-	-	-	-
Total	10	62.5	2	20.0	5	50.0	3	30.0	-	-	-	-	-	-	-	-
<u>BIDDYA</u> Surplus Rich	3 2	37.5 100.0	3	100.0	-	-	-	-	-	2	100.0	-	-	-	-	-
Total	5	50.0	3	60.0	-	-	-	-	2	40.0	-	-	-	-	-	-
<u>JAMIRA</u> Surplus Rich	2 3	14.3 60.0	2	100.0	-	-	-	-	-	-	-	-	-	-	-	-
Total	5	26.3	5	100.0	-	-	-	-	-	-	-	-	-	-	-	-

Source : Field Work 1976-77

One might of course say that this percentage of disposable produce received as crop share is a clear gain with no cost to the landlord whereas in other sources of disposable paddy, in wage labour for example, adjustment has to be made for the cost. So, if it is assumed that approximately half the produce is paid in wages then one might say that we are underestimating the importance of share-cropping by comparing gross produce from wage labour with gross produce from share-cropping.

In the case of share-cropping, what the landowner is getting is net of cost as the share-cropper pays all the cost. So in Table 5.4.7 in Bajua if for three households share-crop received is 30 per cent of gross produce (21-30 per cent category) then on halving the remainder of their gross produce, share-crop rent becomes nearly 50 per cent of their gross produce. So in this sense share-cropping may play a very important role in the economies of these households.

Thus at least three out of six renting-out surplus households in Bajua and possibly a few more out of those who receive nearer 20 per cent (in the 11-20 per cent category) of their disposable paddy from share-cropping out, as this could be quite high when the remaining part is adjusted to wage payments and so on, would be sufficiently dependent on share-cropping. In Bidhya, however, the rich and in Jamira, the rich as well as the surplus farmers receive no more than 10 per cent of their gross produce from share-cropping. So it can be said that, at the most, for eight households in Bajua depending

on the cut off point adopted, and for two households in Biddya, is share-rent an important component of income.

Table 5.4.8 gives details of terms and conditions of tenancy. Taking first of all the data on period of tenure, it seems that there is some variation in the pattern between the three villages, since one year contracts dominate in two of the three villages, especially in Jamira. Whereas in Biddya, two to five year contracts are more important. In Jamira, on the other hand, these longer contracts are insignificant in number at 4.6 per cent. In Bajua, one year, two to five year and indefinite contracts, the latter implying that there is no time limit on the contract, are more or less evenly distributed.

In the two southern villages i.e. Bajua and Biddya, both a deposit which is refundable, and salami which is the money farmers must pay in order to become share-croppers, are paid in a large number of cases, salami much more so than deposit. In Bajua 54.2 per cent and in Biddya 76.5 per cent of share-croppers paid salami whereas 30.5 per cent and 17.6 per cent respectively of households paid deposit. In Jamira, such practices are not found.

Very few of any type of contract are written down, and in fact it is surprising that any are at all since the share-cropping relation does not have to be registered. In Jamira however, fully 20.9 per cent appear to be written. This is difficult to explain since a written document gives the tenant proof that he is the share-cropper. If at some stage the Government decided to take over land that was not owner occupied and to give it to the actual cultivators, then the landlords would presumably want to do what they have been doing quite

Table 5.4.8

TERMS AND CONDITIONS OF TENANCY

Percentage of Total Households Renting-In

Period of Tenure	(1)		Salami (Keep-money) Paid	Depo-sit Paid	(4)		(5)		(6)		Free Labour Given (man-days)	No. of Families Supplying Free Labour	
	Inde-finite	1 yr			2-5 yrs	Type of Contract	Crop Choice	Cost Share	Yes	No			
BAJUA	23.7	39	37.3	54.2	30.5	94.9	5.1	5.1	94.9	5.1	94.9	241	52
BIDDYA	17.6	35.3	47.1	76.5	17.6	94.1	5.9	n.a.	n.a.	-	100	73	12
JAMIRA	30.2	65.1	4.6	n.a.	n.a.	79.1	20.9	4.6	95.3	-	100	52	36

Source : Field Work 1976-77

successfully in West Bengal. There the landlord puts forward as his share-cropper not the farmer who is actually doing the share-cropping, but a relative. If he had given his share-cropper a document that had some validity, then of course this would be much harder to do. However, I am told that most of these written contracts are demanded by the poorer peasants who rent-out to better off farmers fearing eventual occupation by the tenant.

In so far as crop choice is concerned, there is, in fact no choice of crop in Bidhya as it is strictly a mono-cropped area. In the other two villages, that is, Bajua and Jamira, apparently there are a few cases - 5.1 per cent in Bajua and 4.6 per cent in Jamira - where the landlord decides what crops will be grown. In cost sharing only 5.1 per cent of the households in Bajua appear to share some of the cost of production whereas none of the owners in the other two villages share any costs.¹

The most interesting column in the table is perhaps column 7 showing free labour given by tenants to land-owners, in man-days. It shows that in Bajua 52 households provide 241 man-days of free labour, in Bidhya 12 families provide 73 man-days and in Jamira 36 households supply 52 man-days of free labour. It should be kept in mind of course, that it is not one individual only i.e. not just the share-cropper himself who provides this free labour but other members of his household as well. For instance, the tenant's wife may do some housework or a

1. No data was collected on whether tenants could produce any variety of rice or for that matter, whether landlords insist that some specific variety of rice had to be grown. In fixed rent situations in the southern villages however, it is reported that the crop is usually dictated, see p. 157

son or brother may do some fishing or fencing and so on. It is largely true, however, that very little of this work has anything to do with production except in the sense that if the woman comes and husks paddy that would be a part of the production process. So one might say that it does show a form of personalised but clearly unequal relationship between the landlord's family and the tenant's family. But in my view there is nothing particularly feudal about this except in a rather literary sense. In fact this version of the landlord-tenant relationship where some free labour is given by the tenant which is, as I have said earlier, often followed by some kind of reverse flow of gifts especially on ceremonial occasions has perhaps more to do with the remnants of peasant values, than feudal values, of neighbour helping neighbour. This could be just as strongly argued. Admittedly, it has clearly become an unequal relationship but instead of calling it a feudal vestige one could just as well see it is a vestige of the days when one peasant household would help out another household, which in fact still happens. Two perfectly equal households often exchange labour in the field as well as in the home. Therefore, I think it is difficult to argue definitively from this that this is a vestige or a sign of feudal relations.

Table 5.4.9 is interesting in that it confirms a hypothesis that is sometimes found in the literature¹ that the amount of land which a man rents out to some extent depends

1. See Hossain, M:1974. In his article Hossain tests for various other variables. He mentions this as a possible explanatory variable but does not take account of it because he lacked the appropriate data. This may be seen as a contribution to that particular discussion.

depends on how far it is from his homestead because this determines the supervision cost of wage labour. The further it is, the more trouble it is to supervise.

In this table it can be quite clearly seen that renting-out is positively correlated with the distance of the plots from the homestead. It shows that, of the plots nearer to the homestead, very few are rented-out and the further off they are, the more of them are rented-out. This varies from 2.3 per cent of the area within half a mile (col.1) to 100 per cent of those over 2.5 miles from the homestead (col.4) in Bajua. Similarly, for Biddya, from 10 per cent of those within half a mile to again 100 per cent of the area over 2.5 miles away. For Jamira it varies from 3.6 per cent of the area within half a mile to 57.7 per cent of the area over 2.5 miles from home. Clearly, therefore, accessibility is a determining factor in deciding how much land is rented-out.

On the renting-in side, one would expect a reverse relationship to hold, in that farmers would prefer to rent-in land closer to their homesteads. Those renting-in however, are at a disadvantage in that they cannot decide which land they will rent, but have to accept what land they can get. However, the reverse relationship holds reasonably well for Bajua and Biddya where most of the plots rented-in are within a mile from the homestead. The figures are; 36.4 per cent of the rented-in area comes from within half a mile increasing to 39.1 per cent between half a mile and one mile and falling rapidly with further distance from the homestead. For Biddya, the figures are almost similar and most of the rented-in land comes from the plots between one mile

and 2.5 miles from the homestead.

As has been argued earlier (Chapters 2 and 3) in Bajua and Biddya a very large percentage of rented-in land comes from absentee landlords who prefer to rent-out to farmers who live close to these plots to ensure better supervision. For local owners, on the other hand, inaccessibility itself is often reason enough to want to rent-out. Therefore, in so far as absentee ownership is due to ecology (Chapter 2 ; Early Settlement in the South) it has, especially in these two southern villages, affected the conditions of access to land.

This point is highlighted in the instance of Jamira, the northern village. Absentee ownership is almost non-existent in Jamira, and the figures for land renting are very different from those of Bajua and Biddya. Unlike these two villages, most of the rented-in land in Jamira (79.1 per cent) is over 2.5 miles from the homestead. This again, is primarily due to ecological factors in the sense that the village itself is highly densely populated with very little land available for renting-out and most of this is situated at some distance from the village.

Thus on the one hand, the extent of absentee ownership, and other other, the extent of dispersion of landed property determines to a large extent how much land is share-cropped and how much owner-cultivated or cultivated by wage labour. In this respect, therefore, it can be said that ecology plays an important role in the way class relations are structured.

However, the cause of the extent of dispersion itself is not clearly understood. The villagers themselves suggest

migration, marriage and buying and selling as the possible reasons. The point is that on the basis of the information available, it is not possible to argue that dispersion itself is the result of any pre-existing feudal order.

In the context of tenancy or more particularly share-cropping, another point I would like to investigate is whether, as the Chayanov theory of the peasant economy would imply, the amount of land rented-in is determined at least partly by the amount of labour available within the family. Of course, there are different ways of utilizing the amount of labour within the family but for farmers who have some land especially if they also have a plough and some cattle, it is logical that by extending their land (renting-in) they will not only fully utilize their family labour but also their ploughs and cattle which by and large cannot be used for any other purpose other than agriculture. Therefore, if a family happens to own cattle, which must involve some maintenance, the more land they can cultivate, the better off they are.

However, I have not gone into a discussion of cattle availability here, although in itself it would be an interesting study, but have tried to examine to what extent family labour availability in terms of adult members determines the amount of land taken in. Table 5.4.10 shows that there is a reasonably clear relation between the amount of family labour available and the amount of land rented-in and this relationship in fact holds for almost every class that rents-in, in all three villages. Clearly, the amount of land rented-in depends both on how much land and how much labour there is available within the family. However, although the relationship also holds for the rich and the surplus farmers it is

Table 5.4.10

TENANCY AND FAMILY LABOUR AS PER CHAYANOV

	Area Rented-In (acres)										Total HH* Renting In	Average Number of Adult Members+	
	0 acres	0-.5 acres	.5-1 acres	1-2.5 acres	2.5-5.0 acres	5.1-10 acres	10+ acres	No. of HH*	Average Number of Adult Members	No. of HH*			Average Number of Adult Members
BAJUA													
Landless	65	2	2	4	4	6	-	-	-	-	-	18	4.8 (87)
Poor	39	1	1	4	5	11	-	-	-	-	-	23	6.1(141)
Subsistence	27	-	-	1	2	8	-	-	-	-	-	11	6.8 (75)
Self-suff'nt	15	-	-	1	3	-	-	-	-	-	-	4	5.7 (23)
Surplus	9	-	-	-	-	-	-	-	-	-	-	2	8.5 (17)
Rich	4	-	-	-	-	-	-	-	-	-	-	1	9.0 (9)
All Farms	159	3	4	10	14	25	3	9	3	9	59	6.0(352)	
BIDDYA													
Landless	17	-	-	-	-	2	-	-	-	-	-	2	6.5 (13)
Poor	25	-	-	3	3	2	-	-	-	-	-	7	4.8 (34)
Subsistence	7	-	-	-	1	2	-	-	-	-	-	3	5.3 (16)
Self-suff'nt	7	-	-	-	-	2	-	-	-	-	-	2	8.5 (17)
Surplus	5	-	-	-	-	3	-	-	-	-	-	3	5.7 (17)
Rich	2	-	-	-	-	-	-	-	-	-	-	-	-
All Farms	61	-	-	3	4	10	-	-	-	-	-	17	5.7 (97)
JAMIRA													
Landless	39	2	-	4	1	1	-	-	-	-	-	7	5.6 (39)
Poor	29	4	13	4	4	11	-	-	-	-	-	21	4.5 (95)
Subsistence	25	2	4	4	2	4	-	-	-	-	-	8	3.6 (29)
Self-suff'nt	17	-	1	5	-	-	-	-	-	-	-	6	3.6 (29)
Surplus	13	-	-	1	-	-	-	-	-	-	-	1	7.0 (7)
Rich	5	-	-	-	-	-	-	-	-	-	-	-	-
All Farms	128	8	18	16	14	25	3	9	3	9	43	4.8(208)	

Notes: HH* - Households

+Average number of adult members for total households renting-in

Figures in brackets represent total adult members.

Source : Field Work 1976-77

important to point out that the surplus labour in these two classes do not generally work, let alone working in the fields¹ and in fact, they cultivate their rented land by employing wage labour. But then, it is fairly clear that when a surplus or a rich farmer rents-in land his motivation is very different and has little to do with fully utilizing his family labour because in any case he does not use very much family labour on his land. In their case, the motivation behind renting land is capitalistic in that it is a desire for increased surplus produce.

For the smaller farmers, as can be seen, in all three villages there is a correlation between available family labour and amount of land rented-in. These results corroborate other findings, such as Hossain's for example.²

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1. This is because manual work is socially considered a stigma and is associated with a poor and low class background. Giving up or not doing manual labour is in fact, a status symbol (see Hossain:1977:Chapter 2).
 2. Hossain, however, uses family size rather than available labour (Ibid:Chapter 5).

Section V

Usury

Usury is considered to be one of the defining characteristics of what is called in the literature 'semi-feudalism'. It plays a critical role particularly in the formulation of Amit Bhaduri.¹ Bhaduri's case is that semi-feudalism is a combination of two major elements - share-cropping and usury. One of the aspects that he emphasizes is that the same person at the same time is the landlord and the money lender, so that each relation reinforces the other and in particular that the tenant is bound to remain a share-cropper and cannot become an independent peasant proprietor partly because of the amount that has been taken away from him in terms of interest. Another factor which he stresses is the extent of forced commercialisation due to indebtedness. The fact that interest payments or part of the principal payments fall due, usually around harvest time, forces the tenant to sell off his harvest immediately which means he gets a lower price for his produce. A third aspect of Bhaduri's analysis is the the land alienation process. Here he suggests that it is in the interest of the lender that the borrower should default because he can then expropriate his land.

Bhaduri tends to think of usury as more of a dominant element in the agrarian structure. I have already discussed in outline, whether and under what conditions usury can be called a relation of production (Chapter 4). The general conditions it has to fulfil are the same as any other mode of surplus appropriation which are that it should make a difference to the (a) level as well as the rate of development of the forces of production; (b) level

1. Bhaduri, Amit, "A Study in Agricultural Backwardness Under Semi-feudalism", Economic and Political Weekly, Vol.83 (March 1973).

of political power and awareness and (c) the ideological level.

In order to look at this we shall see first of all how important usury is quantitatively particularly in terms of the number of households who are indebted; secondly the amount to which they are indebted especially as a percentage of their income which will give an idea of the burden imposed; thirdly, the extent to which being indebted causes forced sales, fourthly how far the suggestion that for the tenant the landlord is the most important source of loans holds for these three villages; and lastly, to what extent money lending causes alienation from land. The last, of course is difficult with a one year study as such alienation is a dynamic process extending over a longer period.

Let us first take some general data showing the extent of indebtedness.

Table 5.5.1 basically compares indebted and debt free households in terms of their family size and income. It shows that in Bajua 38.1 per cent of the households are indebted against 61.9 per cent who are unindebted and the corresponding figures for Bidhya are 23.7 per cent (indebted) and 76.3 per cent (unindebted) and for Jamira 19.3 per cent (indebted) and 80.7 per cent (unindebted).

It appears that the percentage of indebted households is always less (col.2) than unindebted households (col.8) at the aggregate village level, although a fairly large number of households are indebted in every village. Although most of the indebted households come from the poorer classes, as would be expected, by and large,

it is not the landless but the poor who are more heavily indebted in terms of numbers. In Bajua, only in the poor and in the surplus classes does the number of indebted households exceed that of the unindebted households but then in the case of the surplus class it is a different kind of phenomenon as will be seen later. After all, the concept of exploitation through usury capital usually involves the self-sufficient and the classes below (Bhaduri:1973). The surplus producers in addition borrow from institutional sources (Tables 5.5.2 and 5.5.4) and for productive purposes, so that it is probably more in the nature of re-investment than as victims of exploitation that they are borrowing, this aspect will be elaborated later.

In Bidhya, it is in the subsistence class that the percentage of indebted households exceeds the percentage of unindebted households by 20 per cent and in Jamira in no class does the percentage of indebted households exceed the unindebted households. It seems that in Jamira, the most vulnerable groups, except the landless, that is the self-sufficient and the classes below, are least dependent on usury capital of all the three villages. The landless of course, do not generally qualify for loans since they are not able to offer any collateral.

Table 5.5.1 also shows that indebted households have a lower per capita income (cols. 4,5,6,10,11 and 12) and a lower per capita value for agricultural production in particular (col.4 and 10). This in fact holds for all classes and all villages with the exception of the landless class in Jamira.

In terms of average family size, the indebted households are to some extent smaller than the households free of

Table : 5.5.2 LOANS AND RATES OF INTEREST

HH* in debt	% of HH*	Rates of Interest																					
		I ⁺ Free Tk	As % of total loan	At 11% Tk	As % of total loan	I ⁺ Tk	At 25% Tk	As % of total loan	I ⁺ Tk	At 50% Tk	As % of total loan	I ⁺ Tk	At 100% Tk	As % of total loan	I ⁺ Tk	At 200% Tk	As % of total loan	I ⁺ Tk	Total prin- cipal Tk	Total inte- rest Tk	I ⁺ as % of prin- cipal		
BATAUA																							
21	25.3	2835	48.2	-	26.4	-	1140	19.4	285	1900	32.3	950	-	960	9.4	-	960	11.56	11.3	2312	5875	1235	21.0
33	53.2	920	9.0	2700	38.3	297	2880	28.2	720	1596	15.6	798	960	3880	43.7	3880	1100	12.4	2200	10212	5087	49.8	
11	28.9	-	-	3400	68.0	374	-	-	-	500	5.6	250	3880	-	-	-	-	-	-	8880	6704	75.5	
9	47.4	-	-	4500	100.0	495	1440	21.7	360	680	10.3	340	-	-	-	-	-	-	-	6620	1195	18.0	
8	72.7	-	-	8950	100.0	984	-	-	-	-	-	-	-	-	-	-	-	-	-	8950	984	11.0	
1	20.0	-	-	1200	100.0	132	-	-	-	-	-	-	-	-	-	-	-	-	-	1200	132	11.0	
83	38.1	3755	9.0	20750	49.7	2282	5460	13.1	1365	4676	11.2	2338	4840	11.6	4840	2256	5.4	4512	41737	15337	36.7		
BIDDYA																							
1	5.3	88	4.3	-	-	-	999	49.0	250	60	100.0	30	-	600	29.4	600	-	-	-	60	30	50.0	
11	34.4	-	-	-	-	-	540	37.5	135	352	17.3	1176	400	27.8	400	-	-	-	-	2039	1026	50.3	
6	60.0	-	-	-	-	-	-	-	-	500	34.7	250	400	-	-	-	-	-	-	1440	785	54.5	
1	11.1	-	-	-	-	-	-	-	-	1300	100.0	650	-	-	-	-	-	-	-	1300	650	50.0	
JAMIRA																							
19	23.7	88	1.8	-	-	-	1539	31.8	385	2212	45.7	1106	1000	20.7	1000	-	-	-	-	-	2491	51.5	
Landless																							
6	13.0	60	13.7	-	-	-	348	79.4	87	30	6.8	15	-	180	4.9	180	180	4.9	360	438	102	23.3	
14	28.0	60	1.6	60	1.6	7	1900	52.2	475	1260	34.6	630	180	4.9	180	180	4.9	360	3640	1652	45.4		
7	21.2	250	6.3	-	-	-	2320	58.4	580	-	-	-	560	14.1	560	840	21.2	1680	3970	2820	71.0		
2	8.7	250	8.5	600	44.8	66	440	32.8	110	-	-	-	300	22.4	300	-	-	-	1340	476	35.5		
3	21.4	250	-	2200	75.1	242	480	16.4	120	-	-	-	-	-	-	-	-	-	2930	362	12.3		
1	20.0	-	-	2400	100.0	264	-	-	-	-	-	-	-	-	-	-	-	-	2400	264	11.0		
33	19.3	620	4.2	5260	35.7	579	5488	37.3	1372	1290	8.8	645	1040	7.1	1040	1020	6.9	2040	14718	5676	38.6		

HH* - Households
I⁺ - Interest

Source : Field work 1976-77

debt and this holds for all classes in all three villages.

Table 5.5.2 gives some data on the rates of interest paid by different classes showing the breakdown of total loans in terms of the amount taken at different rates of interest. It seems that the average rate of interest varies from class to class and from village to village. The rich and the surplus classes pay a lower rate of interest compared to other classes as can be seen clearly from the figures for Bajua and Jamira (col.4). All the loans taken by these two classes in Bajua are obtained at the official rate of interest which is 11 per cent. Similarly in Jamira most of the loans taken by these two classes are obtained at 11 per cent. In Biddya, of course, there are no indebted households among these two classes.

It is obvious from this that the rich and the surplus classes borrow almost exclusively from institutional sources. In Jamira it seems that the share of these two classes, which number 4 out of 33 (col.1) or about 12 per cent of the indebted households in the village, exceeds that of the share of the rest of the population in the institutional credit market. In Bajua they are only 9 out of 83 or 10.8 per cent of the indebted households but their loan share almost equals that of the rest of the population (col.4).

Turning to the other end of the class hierarchy, in Bajua the landless class, although dependent exclusively on traditional sources of credit market, do not pay a very high interest rate. In fact, almost half their loans come from friends and relatives and is interest free (col.3). Almost all of the loans are for consumption and this is corroborated by Table 5.5.3 (col.1) showing

Table 5.5.3 REASONS FOR GETTING INTO DEBT/percentage of loans

	Consumption	Production	Petty business	Land purchase	Litigation	Others
BAJUA	39	24	19	-	4	14
BIDDYA	28	-	24	-	5	43
JAMIRA	16	-	60	-	7	17

Source : Field Work 1976-77

the reasons for getting into debt. It is obvious that most of the landless, unless they have some other capital assets or production means such as a shop or cattle, do not normally qualify for loans either from institutional or traditional sources. The poor and the subsistence classes, on the other hand, pay on an average the highest interests rates at respectively 49.8 per cent and 75.5 per cent (col.11). Clearly, these two marginal classes are the most vulnerable to the traditional money lending market. Their capacity to pay back loans is limited and therefore from the lender's point of view, they are better targets for dispossession if not eviction from their land.

Average rates of interest paid by different classes seem to be similar in Jamira but the vulnerable groups are a little extended in that the self-sufficient farmers also pay a relatively high rate of interest at 35.5 per cent. In Biddya, on the other hand, although the pattern seems to be distinctly different, it is not so if it is taken into account that in both the landless and the self-sufficient classes, both of which show average interest rates of 50 percent, there is only one case (col.1) which has distorted the pattern of average interest rates.¹

Table 5.5.3 as noted earlier, shows the reasons for getting into debt.² It seems that although consumption is the most important reason for getting into debt in

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1. It should be noted that these average rates of interest are lower than those generally reported by word of mouth. Average rates of interest well exceeding 100 per cent for the country as a whole are more usually spoken of.
 2. Table 5.5.3 does not show the amount of loan taken for different purposes but only reports the number of times respondents reported a certain reason for getting into debt.

Bajua, for the three villages taken together, it is not overwhelmingly important although relatively so. Borrowing for consumption is lowest in Jamira with 16 incidents. In Jamira, most households reported petty business as their reason for getting into debt, incidence of this reason is very much lower in the other two villages where it is 19 and 24 per cent respectively. The category 'others' includes such things as ceremonial expenditure (col.6) and this is very much higher in Biddya than in the other two villages. The figures are 43 per cent in Biddya and 14 and 17 per cent respectively for Bajua and Jamira.

On the basis of columns 1 and 3, it can be said that Jamira is more commercialised and is more likely to display certain capitalistic elements. While Bajua, although showing a lower degree of commercialisation also shows an important characteristic of capitalism in that 24 per cent of the respondents reported investment in production as their reason for getting into debt. Biddya, on the other hand, seems to be the more traditional, backward and less commercialised of the three villages.

Now we can establish whether the above suggestions based on data for reasons for getting into debt, are corroborated by the data on other indicators of capitalism such as wage labour and marketing for instance.

Table 5.2.1 shows that at an aggregate level both Bajua and Biddya depend on wage labour for more than 50 per cent of their total labour use and the figure is considerably lower in Jamira at only 37.7 per cent (col.2). As regards marketing, Table 5.3.1 showing marketed produce (paddy), especially as a percentage of disposable paddy

(col.5) indicates that of the three villages, Jamira markets proportionately more paddy but at the aggregate level in none of the villages does this exceed 50 per cent of the disposable produce. However, when class level data are looked at separately, it seems that whether marketed surplus is seen as a percentage of disposable produce or in terms of cash value as a percentage of total cash earnings, the rich market well over 50 per cent. Table 5.3.2 showing non-agricultural marketed produce and Table 5.3.3 giving forms of payment (cash and kind) confirm Jamira as the most commercialized village.

Having given some quantitative data in terms of indebted households, rates of interest paid by different classes and reasons for getting into debt, we can now move into an area that will have a direct bearing on the Bhaduri hypothesis. Table 5.5.4 compares self-managed debtors¹ and share-cropper debtors and it can be seen that in two of the three villages more share-croppers are indebted. In Bajua, 69.5 per cent of the share-croppers are indebted (col.4) compared to 37.2 per cent among the self-managed (col.1); and in Biddya 60 per cent of the share-croppers are indebted as opposed to 28.3 per cent of the self-managed. In Jamira, however, the situation is reversed in that while 27 per cent of the share-croppers are indebted, as much as 42.7 per cent of the self-managed cultivators are indebted. The most likely reason for this is that as has been seen earlier in Jamira (Table 5.5.3; col.3), most of the loans are taken for petty business purposes rather than for consumption. Therefore, it appears that it is in fact the same group of people who are in petty commodity production and are trying to sell

1. Self-managed includes those who own land and may rent-out part of it but do not rent-in.

Table 5.5.4

DEBT BURDEN AND SOURCE OF DEBT/self-managed vs share-croppers

(1) (2) (3) (4) (5) (6)

	Self-Managed Debtors		Share-Cropper Debtors	
	Indebted HH* as % of total HH	Average Institutional Tk	Indebted HH as % of total HH	Average Institutional Tk
<u>BAJUA</u>				
Landless	46.1	-	33.3	-
Poor	22.2	450.0	65.2	450.0
Subsistence	26.7	517.0	45.4	-
Self-sufficient	66.7	720.0	100.0	-
Surplus	20.0	1200.0	100.0	517.0
Rich	37.2	578.0	-	-
All forms		727.0	69.5	504.0
<u>BIDYA</u>				
Landless	24.0	-	57.1	-
Poor	71.4	-	66.7	-
Subsistence	28.6	-	-	-
Self-sufficient	-	-	-	-
Surplus	-	-	-	-
Rich	-	-	-	-
All forms	28.3	698.0	60.0	345.0
<u>JANIRA</u>				
Landless	58.6	-	57.1	-
Poor	52.0	-	19.0	-
Subsistence	23.5	600.0	12.5	-
Self-sufficient	15.4	-	100.0	1100.0
Surplus	40.0	1200.0	-	-
Rich	42.7	1000.0	27.0	1100.0
All forms		593.0	27.0	239.0

HH* - Households

Source : Field work 1976-77

whatever they have to sell (mainly coir) directly in the market without having to go through any trading intermediaries and are gradually trying to branch out into other forms of small business.

Although the details of participation by different classes do not emerge as a clear pattern, in so far as more of the share-croppers borrow in two of the villages one could say that Bhaduri's thesis is substantiated. On the other hand, in the third village, Jamira, the situation is reversed, and in addition in terms of average loan taken none of the villages indicate that share-croppers are in fact more deeply indebted than others. Besides, in order to see whether or not Bhaduri's hypothesis holds for these villages, it is also necessary to establish whether the indebted share-croppers tend to borrow more from their own landowners than from other sources.

Before doing this, let us make an attempt to estimate the importance of usury in terms of the burden it puts on the peasantry (Table 5.5.5). Here various different measures are used, all of which are related to total income not just from agriculture but from all other sources for every class. These are all different possible measures of the extent to which usury weighs on peasants and indeed interest is the most direct form of burden, since the farmer must pay if he does not want to risk losing his land.

Total debt burden consisting of total principal and interest paid and unpaid at the beginning of the year when the loan is actually taken is the largest sum, but still it does

Table 5.5.5

DEBT BURDEN* AS PERCENTAGE OF INCOME†

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Total debt-burden as % of total income	Total principal paid as % of total income	Total principal due as % of total income	Total interest paid as % of total income	Total interest due as % of total income	Total principal & interest paid as % of income	Total principal & interest due as % of income	Total interest: paid/unpaid as % of income
<u>BAIUA</u>								
Landless	22.3	15.3	0.3	3.9	-	19.2	3.1	3.9
Poor	12.4	11.6	7.4	7.0	2.4	18.6	9.8	9.5
Subsistence	57.7	24.6	8.3	19.7	5.1	44.3	13.4	24.8
Self-sufficient	37.1	10.0	21.3	3.3	2.3	13.4	23.7	5.7
Surplus	20.3	10.1	8.2	1.0	1.0	11.1	9.2	2.0
Rich	4.2	-	3.8	-	0.4	-	4.2	0.4
All forms	19.4	11.6	7.9	5.4	1.8	17.0	9.6	7.1
<u>BIDUYA</u>								
Landless	3.3	1.5	0.7	1.1	-	2.6	0.7	1.1
Poor	12.1	2.4	5.7	1.6	2.5	4.0	8.2	4.1
Subsistence	13.6	8.8	-	3.7	1.1	12.5	1.1	4.8
Self-sufficient	41.7	21.4	6.4	13.9	-	35.3	6.4	13.9
Surplus	-	-	-	-	-	-	-	-
Rich	-	-	-	-	-	-	-	-
All forms	15.0	6.3	3.6	3.4	1.6	9.7	5.2	5.1
<u>JAMIRA</u>								
Landless	5.2	4.0	0.2	1.0	-	5.0	0.2	1.0
Poor	20.4	10.8	3.2	5.4	1.0	16.1	4.2	6.3
Subsistence	33.0	16.3	2.3	13.7	-	30.0	2.9	13.7
Self-sufficient	18.0	13.3	-	4.7	-	18.0	-	4.7
Surplus	10.3	2.6	7.7	0.4	0.8	3.0	8.6	1.3
Rich	12.1	-	12.1	-	1.3	-	13.4	1.3
All forms	12.8	7.5	5.3	4.3	0.7	11.8	5.9	4.9

* Total debt burden is total principal plus one year's interest.
 † Total income includes income from agriculture as well as from all other sources.

Source : Field Work 1976-77

not appear to be very severe¹ (col.1). Here, in none of the villages does the total debt-burden exceed even 100 percent of income. In fact, on an average, it is 19.4 per cent for Bajua, 15 per cent for Biddya and only 12.8 per cent for Jamira. Of course, it varies from class to class and in Bajua the class bearing the heaviest debt-burden is the subsistence class with 57.7 per cent of total income, followed by the self-sufficient class at 41.7 per cent and in Jamira on the subsistence class with 33 per cent.

In order to see the drain of surplus from the peasantry to the money lenders who may also of course be very much a part of the peasantry, as will be seen later, it is necessary to look at what has been paid during the year both in terms of principal and interest and to see in what relation this stands to peasant income. Here of course (col.6) the overall burden is lower than the debt burden as it has been defined. For the village as a whole it is 17 per cent for Bajua, 9.7 per cent for Biddya and 11.8 per cent for Jamira. These figures are not very much lower than the total debt burden which would imply a rather rapid rate of turnover of debt. People do not appear to want to stay in debt and to let the debt accumulate, since they appear to pay off their debts at a fairly rapid rate. This can be seen even more clearly by comparing total principal paid (col.2) with total principal due (col.3) and also total interest paid (col.4) with total interest due (col.5). Total principal

1. The Bengal Provincial Banking Enquiry Committee investigated rural indebtedness around 1935. In computing total outstanding debt as a percentage of income, they found many households with a total debt burden in this sense exceeding double their income.

paid is in almost every case substantially higher than total principal due, and the same is the case for interest paid and due. The landless, in particular in all three villages seem to have paid off almost their entire debt together with interest. The only principal they owe is .3, .7 and .2 per cent of their incomes (col.3) respectively for Bajua, Biddya and Jamira. This is clearly due to the fact that the money lender has no interest in the landless peasant, who has qualified for the loan by virtue of having income or assets other than land, other than getting his money back as quickly as possible.

So the drain of surplus to the money lender which could be measured by the principal and interest paid (col.6), is quite high for some of the classes especially the subsistence class in Bajua at 44.3 per cent, the self-sufficient class in Biddya at 35.3 per cent and again the subsistence class in Jamira at 30 per cent of their incomes. Clearly for such poor people, these are quite substantial payments and in that sense one could say that if they were not indebted they would be that much better off. The point is, if this form of surplus extraction goes on year after year then clearly, given their limited incomes it must have an expropriating effect on the peasantry.

In this sense, usury obviously plays an important role in the process of differentiation. For instance, if those in the subsistence category have to pay 30 per cent of their income to the money lender, then they will not subsequently be able to maintain that (subsistence) level. They will therefore, then have to borrow again and will progress deeper into debt, sooner or later they are likely to lose their land.

So usury certainly would seem to have fairly drastic, dynamic consequences, but whether this qualifies it as a relation of production will depend on whether it prevents any expansion of the forces of production that might otherwise be possible for these families. Given the poor base of these families, one would assume that the surplus drain paid in terms of interest must absolutely inhibit any chance whatsoever of improved agriculture. One might therefore say that usury does, for these particular groups i.e. self-sufficient and subsistence groups, inhibit the growth of the forces of production.

On the other hand, one might argue that (a) even without the interest payments they are already at the subsistence level so that they would never in any case, manage to change or improve their forces of production to any significant extent. They certainly would eat better and live better, all of which is of course highly desirable, but possibly this would not be accompanied by a significant difference in production technology or marketing behaviour by these peasants.

The other point is (b) that usury is an on-going process. The households which have to pay between 30 per cent (Jamira) and almost 45 per cent (Bajua) of their income (col.6) towards repayment of their loans are likely to have to borrow again. What we do not know is whether the process terminates at some stage with the land or some of the land belonging to the borrower, passing into the hands of the money lender or whether it perpetuates itself. The latter seems rather improbable because then it would represent a net transfer of funds from the money lender to the poor or subsistence farmer, but this is something on which I do not have data.

It can be argued that there are times when the availability of money even at very high rates of interest keeps the peasant economy going in the sense that if the peasant were not able to get a loan he would have to dissolve his economy much faster. He might have, for instance, to sell off his land, or at least a part of his land or he might have to just abandon cultivation because he cannot reproduce his own labour or replace his cattle without a loan.

So the effect of usury on the peasant economy, I would argue, is contradictory. On the one hand, it dissolves and on the other, it preserves the peasant mode of production. The net result probably varies from area to area and could only be seen in a particular area by collecting data over a period of time.¹

The next table (5.5.6) as indicated earlier, broadly explains the production and marketing behaviour of indebted households and how this compares with that of unindebted ones. The columns relate to the marketing behaviour of indebted versus unindebted households and here we simply have the extent of their participation in the market in terms of the number and the percentage of households.

The table shows that in Bajua whereas 31.3 per cent of the indebted households do some marketing (col.2)

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1. Lenin thought that usury tended to preserve the old patriarchal forms of production and to slow down the advent of capitalism in the country side and that it did so precisely by keeping the peasant going at a point where he would otherwise have been ready to give up. (Lenin: The Development of Capitalism in Russia, Progress Publishers, Moscow, 1964:186-189).

Table 5.5.6

INDEBTEDNESS AND MARKETING (PADDY)

	(1)	(2)	(3)	(4)	(5)	(6)
	Indebted Households			Unindebted Households		
	Total indebted HH*	Indebted market-ing HH as % of all indebted HH	Indebted market-ing HH as % of all market-ing HH	Total un-indebted market-ing HH	Unindebted market-ing HH as % of all unindebted HH	Unindebted market-ing HH as % of all market-ing HH
BAVUA						
Landless	2	9.5	22.2	7	11.3	77.8
Poor	6	13.2	27.3	16	55.2	72.7
Subsistence	6	54.5	21.4	22	81.5	78.6
Self-sufficient	5	55.5	38.5	8	80.0	61.5
Surplus	6	75.0	66.6	3	100.0	33.3
Rich	1	100.0	20.0	4	100.0	80.0
All forms	26	31.3	30.2	60	69.8	44.4
BIDDYA						
Landless	-	-	-	2	11.1	100.0
Poor	2	18.2	25.0	6	28.6	75.0
Subsistence	2	33.3	33.3	4	100.0	66.6
Self-sufficient	1	100.0	14.3	6	75.0	85.7
Surplus	-	-	-	7	87.5	100.0
Rich	-	-	-	2	100.0	100.0
All forms	5	26.3	15.6	27	44.3	84.4
JAMIRA						
Landless	-	-	-	2	5.0	100.0
Poor	2	14.3	40.0	3	8.3	60.0
Subsistence	4	57.1	26.7	11	42.3	73.3
Self-sufficient	2	100.0	10.5	17	80.9	89.5
Surplus	3	100.0	21.4	11	100.0	78.6
Rich	1	100.0	20.0	4	100.0	80.0
All forms	12	36.4	20.0	48	34.8	80.0

HH* - Households

Source : Field Work 1976-77

69.8 per cent of the unindebted households are involved in marketing (col.5) at an aggregate village level. The pattern holds for Bidhya. In Jamira, although it is reversed in that the percentage of indebted marketing households exceeds that of the unindebted marketing households, the two figures are fairly similar at 36.4 per cent for indebted marketing and 34.8 per cent for unindebted marketing households.

As far as class variation is concerned, it seems that the unindebted poorer classes, especially the unindebted poor, the subsistence and the self-sufficient strata in Bajua and the unindebted poor and the subsistence strata in Bidhya market significantly more than their indebted counterparts. Therefore, at least in terms of numbers, the relation between marketing and indebtedness seems to indicate that marketing is not, even for poorer classes, something which is forced by indebtedness.

In Jamira, on the other hand, it appears that the indebted households are numerically more involved in the market. However, it has already been established that most of these loans are taken for business purposes (Table 5.5.3). Therefore, I would suggest that these do not constitute usury capital in the form of consumption loans. We have also tentatively suggested that Jamira, because it markets proportionately more paddy (Table 5.3.1) as well as non-agricultural products (Table 5.3.2) and pays a substantially higher percentage of labour costs in cash rather than in kind compared to the other two villages, is more capitalist. So although the indebted households appear to market more in Jamira, it is important to point out that marketing is caused not only by indebtedness but also by the availability of surplus produce itself. Therefore just by

looking at these figures it is difficult to say anything definite about the importance of indebtedness as such.

In the context of Bhaduri's hypothesis, as elaborated earlier (Table 5.5.4), in comparing self-managed and share-cropper debtors, it was seen that numerically in the first two villages at least, Bhaduri's hypothesis holds, but in terms of average loan taken, in none of the villages does the data indicate share-croppers as being more deeply indebted. The second part of his hypothesis was that tenants borrowed more from their landlords.

This is tested in Table 5.5.7 which elaborates the sources of loans for share-croppers. The table shows that at least in the two villages, Bajua and Biddya, tenants borrow quite substantially from their landlords but not overwhelmingly so. In Bajua, for instance, at the aggregate level, only 23.4 per cent of loans are taken from landowners (col.7) and the average size of loan is Tk.336 (col.8). Corresponding figures against other loan sources are much higher (cols. 9-14). In Biddya, on the other hand, both in terms of percentage of loans taken and average loan size (col.7 and 8) tenants appear to borrow predominantly from their landowners, but then the incidence of borrowing is very low in Biddya. Finally, in Jamira, none of the share-cropping households appear to borrow from their landowners.

So this also corroborates the impression that if borrowing from one's own landlord is a sign of 'semi-feudalism' then Jamira is not semi-feudal. Biddya, on the other hand, and in this sense, is 'semi-feudal'. As regards

Table 5.5.7

SOURCES OF INDEBTEDNESS AND DEBT SIZE

	No. of house-holds	%	No. of Loans	%	Source and Average Size of Loan													
					Rich Peasant/ Money Lender		Land Owner		Business/ Shop Keeper		Friends/ Relatives		Institutions					
					% of Loans	Av. debt size (Tk)	% of Loans	Av. debt size (Tk)	% of Loans	Av. debt size (Tk)	% of Loans	Av. debt size (Tk)	% of Loans	Av. debt size (Tk)				
<u>SAJUA</u>																		
Landless	15	71.4	29	72.5	-	-	3.4	300	10.0	450	87.5	105	-	-				
Poor	15	45.4	17	35.4	-	-	23.5	240	5.9	700	64.7	80	5.9	450				
Subsistence	5	45.4	7	26.9	-	-	85.7	310	14.3	200	-	-	-	-				
Self-sufficient	4	80.0	5	35.7	-	-	80.0	480	20.0	200	-	-	-	-				
Surplus	2	-	-	-	-	-	-	-	-	-	33.3	200	67.0	517				
Rich	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
All forms	41	49.4	64	44.4	-	-	23.4	336	9.4	408	59.4	102.8	7.8	504				
<u>BIDDYA</u>																		
Landless	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Poor	4	36.4	4	36.4	-	-	75.0	200	-	-	25.0	125	-	-				
Subsistence	2	33.3	2	28.6	-	-	100.0	250	-	-	-	-	-	-				
Self-sufficient	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Surplus	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Rich	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
All forms	6	31.6	6	28.6	-	-	83.3	220	-	-	16.6	125	-	-				
<u>JAMIRA</u>																		
Landless	4	66.7	7	77.8	-	-	-	-	28.6	82	71.4	30	-	-				
Poor	4	28.6	5	21.7	-	-	-	-	60.0	240	40.0	80	-	-				
Subsistence	1	14.3	2	40.4	-	-	-	-	-	-	100.0	125	-	-				
Self-sufficient	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Surplus	1	33.3	2	50.0	-	-	-	-	-	-	-	-	100.0	1100				
Rich	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
All forms	10	30.3	16	28.1	-	-	-	-	31.2	177	56.2	62	12.5	1100				

Source : Field Work 1976-77

Bajua, indebtedness is fairly evenly distributed between different sources, except for the self-sufficient whose average debt size is Tk.480 from landowners as against Tk.200 from other sources and subsistence farmers with Tk.310 from landowners as against Tk.200 from other sources. Therefore, the indebted households in the self-sufficient class and to a lesser extent in the subsistence class could be said to meet Bhaduri's criteria of semi-feudalism.

Table 5.5.8 is an attempt to see to what extent households are compelled to sell their produce immediately after the harvest when prices are low because they are indebted. This has been done by classifying households in terms of their total debt-burden as a percentage of income, into nine groups (cols. 4-12) broken down into strata, for example, landless, poor etc. In each group the percentage of sales made in the first post-harvest period at the lowest price are presented. This has been called 'forced sale'.

The table shows that in every village, the households marketing in the two poorest classes i.e. the landless and the poor, sell whatever they have to sell in the period immediately following the harvest when the price is lowest irrespective of their debt burden. In Bajua of course, this is also true for the subsistence class where out of the 27 households who are debt-free (col.4) 22 market and whatever they market is sold immediately after the harvest. This has been indentified as 'forced sale'. Of the indebted households in this category, 1 household has a debt burden of between 30 and 40 per cent of its income (col.9) but markets none of its produce;

Table 5.5.8

DEBT BURDEN* AS PERCENTAGE OF INCOME/FORCED SALE**

	(1) Debt burden as % of income	(2) Forced Sale As % of value of early-marketed paddy	(3) As % of value of disposable paddy	(4) C				(5) Total Debt burden as percentage of Income				(6) 5.1-10.0				(7) 10.1-20.0			
				Total HH	HH marketing	% of forced sale	Total HH	HH marketing	% of forced sale	Total HH	HH marketing	% of forced sale	Total HH	HH marketing	% of forced sale	Total HH	HH marketing	% of forced sale	
<u>EADVA</u>																			
Landless	22.3	100.0	4.5	62	7	100.0	-	-	-	2	-	-	4	-	-	4	-	-	
Poor	12.4	100.0	8.8	29	16	100.0	-	-	-	7	-	-	13	-	-	5	-	-	
Subsistence	57.7	100.0	14.4	27	22	100.0	-	-	-	-	-	-	1	-	-	-	-	-	
Self-sufficient	37.1	100.0	14.7	10	8	73.7	-	-	-	1	-	-	4	-	-	4	-	-	
Surplus	20.3	33.9	5.5	3	3	66.6	-	-	-	-	-	-	-	-	-	-	-	-	
Rich	4.2	34.8	21.4	4	4	8.7	1	1	34.8	-	-	-	-	-	-	-	-	-	
All forms	19.4	55.5	11.8	135	60	42.9	8	1	34.8	10	1	100.0	22	9	53.8	-	-	-	
<u>EIDDYA</u>																			
Landless	3.3	-	-	18	2	100.0	1	-	-	-	-	-	-	-	-	-	-	-	
Poor	12.1	100.0	11.6	21	4	100.0	-	-	-	2	-	-	8	-	-	2	-	-	
Subsistence	13.6	100.0	9.6	4	4	57.1	-	-	-	1	-	-	4	-	-	2	-	-	
Self-sufficient	41.7	100.0	20.5	8	6	25.3	-	-	-	-	-	-	-	-	-	-	-	-	
Surplus	-	-	-	2	2	16.8	-	-	-	-	-	-	-	-	-	-	-	-	
Rich	-	-	-	8	7	6.8	-	-	-	-	-	-	-	-	-	-	-	-	
All forms	15.0	100.0	11.8	61	25	32.8	1	-	-	3	-	-	12	4	100.0	-	-	-	
<u>JAMIRA</u>																			
Landless	5.2	-	-	40	2	100.0	2	-	-	4	-	-	-	-	-	-	-	-	
Poor	20.4	100.0	2.8	36	3	100.0	-	-	-	3	-	-	7	-	-	-	-	-	
Subsistence	33.0	100.0	11.3	26	11	65.9	-	-	-	-	-	-	-	-	-	-	-	-	
Self-sufficient	18.0	100.0	30.2	21	17	26.9	-	-	-	1	-	-	2	-	-	2	-	-	
Surplus	10.3	54.0	23.7	11	11	28.6	-	-	-	-	-	-	1	-	-	2	-	-	
Rich	12.1	43.2	13.3	4	4	23.4	-	-	-	-	-	-	1	-	-	1	-	-	
All forms	12.8	61.8	15.4	138	48	31.5	2	-	-	10	1	64.0	12	5	58.5	-	-	-	

* - Principal + Interest (paid and unpaid)
 ** - At Taka 70.0 per maund
 + - Households

Source : Field Work 1976-77

Table 5.5.8 (Contd..) DEBT BURDEN* AS PERCENTAGE OF INCOME/FORCED SALE**

	Total Debt Burden as Percentage of Income														
	20.1-30.0			30.1-40.0			40.1-50.0			50.1-60.0			60.1-70.0		
	Total HH	HH marketing	% of forced sale	Total HH	HH marketing	% of forced sale	Total HH	HH marketing	% of forced sale	Total HH	HH marketing	% of forced sale	Total HH	HH marketing	% of forced sale
<u>FAJUA</u>															
Landless	14	2	100.0	1	-	-	-	-	-	-	-	-	-	-	-
Poor	3	-	-	2	-	-	1	1	100.0	5	4	100.0	3	1	100.0
Subsistence	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Self-sufficient	1	-	-	6	-	-	-	-	-	-	-	-	-	-	-
Surplus	3	2	41.5	-	-	-	-	-	-	-	-	-	-	-	-
Rich	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All forms	21	4	64.2	10	5	100.0	4	1	100.0	5	4	100.0	3	1	100.0
<u>EIDDYA</u>															
Landless	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Poor	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subsistence	1	-	-	-	-	-	1	1	100.0	-	-	-	-	-	-
Self-sufficient	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Surplus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rich	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All forms	2	-	-	-	-	-	1	1	100.0	-	-	-	-	-	-
<u>JAMIRA</u>															
Landless	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Poor	3	2	100.0	1	-	-	-	-	-	-	-	-	-	-	-
Subsistence	1	1	100.0	6	3	100.0	-	-	-	-	-	-	-	-	-
Self-sufficient	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Surplus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rich	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All forms	4	3	100.0	7	3	100.0	-	-	-	-	-	-	-	-	-

* - Principal + Interest (Paid and Unpaid)
 ** - At taka 70.0 per maund
 + - Households

Source : Field Work 1976-77

2 have debt burdens of between 40 and 50 percent of their income, 1 of which carries out all his sales at this time (col.10); 5 with debt burdens between 50 and 60 per cent of income , 4 of which market in this period and in fact, sell all they have to sell (col.11); and 3 households with a debt burden of between 60 and 70 per cent of income of which 1 is forced to sell his 'depressed surplus' at the lowest price (col.12). So it seems that for the really poor it does not matter at all whether they are indebted or not. They sell whatever they have to sell in the period immediately following the harvest.

For the classes who are a little better off than the landless, poor and subsistence, there seems to be some relation between the degree of indebtedness and the extent to which they sell at the lowest price. But even here it is not as clear a relation as expected. For instance, in Bajua, all of the three surplus farmers who are debt free, market surplus, 66.6 per cent of which is marketed in the period immediately following the harvest (col.4). This has been called 'forced sale' except that in this instance the farmers are not indebted and being surplus farmers, not poor either. Column 7 shows that 4 of these surplus households with a debt burden of between 10 and 20 per cent of their income sell a much smaller proportion - 29.2 per cent - in this period. Finally, there are 2 households marketing who are indebted to the extent of between 20 and 30 percent of their income and sell 41.5 per cent of their marketed surplus in this period. So it is difficult to establish any discernible pattern on the basis of this data.

But in this instance, the surplus farmers appear to be the exception to the rule since it can be seen that for both the class below i.e. the self-sufficient class, and the class above i.e. the rich farmers, the indebted marketing households market proportionately a much higher percentage of their marketed produce in the period immediately following the harvest, than the unindebted households. And in so far as these classes are concerned, the correlation between the degree of indebtedness and the extent to which farmers are forced to sell at the lowest price holds for the two remaining villages as well.

However, the point to note, as already explained, is that the poorest classes are forced to sell whatever they have to sell in the period when market prices are lowest and it makes very little difference whether or not they are indebted. This may be partly because they have very little to sell and so naturally there is less point in holding on to it. Of course they have cash needs but these are probably not significantly related to indebtedness; they have cash needs anyway.

With regard to the better-off classes, i.e. the self-sufficient and the classes above, where some relation does seem to exist between the degree of indebtedness and the extent to which surplus is marketed at the lowest price, it is difficult to argue that this marketing is forced by debt burden. Thus on the basis of this data it is difficult to confirm a hypothesis such as Bhaduri's especially in such strong terms.¹

1. See earlier discussion on p.47 ; also see Bhaduri, A. "A Study in Agricultural Backwardness Under Semi-feudalism", Economic and Political Weekly, Vol.83 (March 1973).

One important point so far not considered is usury as a factor in the process of differentiation. In other words, the extent of loss of land as a result of indebtedness. This is attempted in Table 5.5.9. Clearly, one year is too short a time from which to draw any conclusions about the long term results of indebtedness but we can still see whether the data indicates a positive or a negative correlation with differentiation.

This table shows that in each village there is some land which has been lost and mostly this has been due to mortgaging rather than direct sales. So clearly at least for the period of this study mortgaging, that is losing land through not being able to pay off a debt, was more important as a mechanism of differentiation than sale (cols. 3 and 4). This of course, in itself does not tell us very much because we do not know how important sales are over a length of time compared to, say, demographic differentiation leading to families splitting land holdings until they become so small that it is no longer worthwhile keeping them.

It is clear in any case, that not many people lost their land in the year of this survey. The figures are 10 out of 218 households or 4.6 per cent for Bajua; 4 out of 80 or 5 per cent for Biddya and 3 out of 171 or 1.7 per cent for Jamira (col.1). However, in point of fact these percentages are misleading. In order to obtain the real picture it is necessary to base these percentages not on the entire number of households in the village but only on the vulnerable landowning groups. Thus, if these percentages are revised on the basis of the subsistence and the poor households only, without taking account of the landless who do not own any land or the self-sufficient

Table 5.5.9

LAND TRANSFER AS A RESULT OF INDEBTEDNESS

	Land Lost			Reason				Land Gained			Reason				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)		
	No. of HH*	%	Area in acres	As % of owned area	Sale Acres	%	Mortgage Acres	%	No. of HH*	%	Area in acres	As % of owned area	Sale Acres	Mortgage Acres	%
<u>EAJUA</u>															
Landless	2**	2.4	1.33	100.0	-	-	1.33	100.0	-	-	-	-	-	-	-
Poor	5	8.1	2.80	42.4	0.52	18.6	2.28	81.4	-	-	-	-	-	-	-
Subsistence	3	7.9	1.56	18.0	-	-	1.56	100.0	-	-	-	-	-	-	-
Self-sufficient	-	-	-	-	-	-	-	-	2	18.2	3.30	12.7	3.30	100.0	-
Surplus	-	-	-	-	-	-	-	-	2	40.0	2.00	3.1	2.00	100.0	-
Rich	-	-	-	-	-	-	-	-	-	1.8	5.30	5.9	5.30	100.0	-
All forms	10	4.6	5.69	34.3	0.52	18.6	5.17	90.8	4	1.8	5.30	5.9	5.30	100.0	-
+(10.0)															
<u>BIDDYA</u>															
Landless	3	9.4	1.26	42.3	-	-	0.26	100.0	-	-	-	-	-	-	-
Poor	1	11.1	0.33	7.6	-	-	0.33	100.0	-	-	-	-	-	-	-
Subsistence	-	-	-	-	-	-	-	-	1	50.0	1.56	9.2	1.56	100.0	-
Self-sufficient	-	-	-	-	-	-	-	-	1	1.2	1.56	9.2	1.56	100.0	-
Surplus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rich	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All forms	4	5.0	1.59	22.1	-	-	0.59	100.0	1	1.2	1.56	9.2	1.56	100.0	-
+(9.5)															
<u>JAMIRA</u>															
Landless	2	4.0	0.21	26.0	-	-	0.21	100.0	-	-	-	-	-	-	-
Poor	1	3.0	0.07	4.6	-	-	0.70	100.0	-	-	-	-	-	-	-
Subsistence	-	-	-	-	-	-	-	-	3	21.4	0.27	1.3	0.27	100.0	-
Self-sufficient	-	-	-	-	-	-	-	-	1	20.0	0.13	1.2	0.13	100.0	-
Surplus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rich	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All forms	3	1.7	0.28	12.0	-	-	0.28	100.0	4	2.3	0.40	1.3	0.40	100.0	-
+(3.6)															

HH* - Households
 ** - Having sold their land these peasants were reduced to landless peasants
 + - figures in brackets represent revised percentages based on poor and subsistence households only.

Source : Field Work 1976-77

and the classes upwards who are in fact, net buyers as can be seen from the table (cols. 5 and 6), we find that the percentage of households losing land stands at 10 per cent, 9.5 per cent and 3.6 per cent respectively for Bajua, Bidhya and Jamira.

Although these figures do not seem to be very high, the percentage of their land lost as reported by the losers seems to be quite high in Bajua at 34.3 per cent, and moderately high at 22.1 per cent in Bidhya. It is only 12 per cent in Jamira (col.2).

Clearly land is being transferred from the poor to the rich and an important mechanism for this transfer is mortgaging, in other words, indebtedness. How important it is can only be seen when this is compared with other mechanisms accomplishing the same result i.e. differentiation. In a way an act of sale is always involved since even when sale of land is not due to debt but simply because the holding is too small, the most likely person to buy it is a richer farmer.

It would be interesting to establish how many sales are due to fragmentation caused by inheritance and how many to indebtedness etc. but in the absence of such data it is only possible to see that indebtedness causes some land transfer but not how significant this is in relation to other processes of differentiation

To summarize the findings from this analysis of the various aspects of rural indebtedness in the context of these three villages, we see that Bhaduri's somewhat neat and inter-locked system of semi-feudalism in which 'share-cropping' and the 'perpetual indebtedness of the

small peasants' as manifestations of the 'concentration of two modes of exploitation, namely usury and landownership in the hands of the same economic class' (Bhaduri:1973: 120-121) persists, does not seem to hold for these villages. Except, of course that share-croppers numerically if not by average loan size, are more indebted in two of the villages (Table 5.5.4); but otherwise they are not overwhelmingly dependent on their landlords for loans (Table 5.5.7). In terms of marketing, again numerically, unindebted households seem to be more involved in the market than indebted ones (Table 5.5.6) at least in two villages. In terms of forced sales it appears that no systematic relation exists between the degree of indebtedness and the extent of sale in the period immediately following the harvest when market prices are lowest. In fact such a relation if it exists, seems to hold for the richer classes (Table 5.5.8).

That indebtedness is an important phenomenon in the life of the rural people is, admittedly, undeniable and it is quite possible that some of the poorer households especially the subsistence and the poor may be pushed down below subsistence through the mechanism of usury. But on the other hand, as argued earlier, usury also maintains certain people at subsistence level who would otherwise have permanently lost their land immediately. It may be that although usury works more slowly in the beginning, it ends up by transferring more land for a smaller amount of money than an outright sale would have involved.

This data, however, does not permit, and no data referring only to a specific point in time would permit any definite conclusions on this. As far as calling usury a relation of production is concerned, I think that by most definitions it cannot be identified as such.

Conclusion

On the basis of my analysis of the various structures of relations of production in the three villages, I would submit that the southern village, Bajua and the northern village, Jamira are respectively characterized by an articulation of a capitalist mode and a peasant mode of production. So far as these villages are concerned I do not think there is any justification for considering share-cropping as a relation of production with specific effects at either the economic, the political or the ideological level as distinct from those of a peasant economy.¹

In Bidya, on the other hand, some signs of feudal dependence are noted in the sense that a number of poor peasants are critically dependent on share-cropping as a means of livelihood and to that extent share-cropping plays an important role in the reproduction of their domestic economy.

In the context of a capitalist mode there are two principal classes, the capitalists and the wage labourers; in a dependent 'feudal' mode - landlords and share-croppers; and in the peasant mode - a differentiated peasantry. On the basis of this analysis I have in the next chapter constructed a table showing the relative sizes of the different classes in the three different villages. In this, however, I have amalgamated the capitalist farmers and the landlords into one class as there is no clear division between the two classes in terms of their wage-labour use and land renting (out). And then I have tried to tie this new breakdown into classes to the ecological factors.

1. I have in any case presented data on the breakdown of landlords and share-croppers, although I consider this as more of a relation within a peasant mode than a relation that is in any sense feudal.

CHAPTER 6

ECOLOGY AND RELATIONS OF PRODUCTION

Section I

The Class Structure of the Three Villages

On the basis of the analysis in the last chapter of the indicators of different modes of production, it is now possible to work out a table of comparative class structure using data from the three villages.

In Table 6.1.1 therefore, four classes are identified¹:

- (i) the rich peasants, which includes both landlords and capitalist farmers; (ii) the share-croppers who are

1. I have earlier suggested, while expounding the theoretical basis of class structure, a five class model separating the landlords and the capitalist classes (Chapter 4, p. 249 and later in broadening the framework, advanced a structure of as many as seven classes including merchants and money lenders (p. 255). However, it is now clear that the rich peasants do not fall into well defined categories of landlord farmers or capitalist farmers. Almost all of them in the three villages rent out much of their land and at the same time use wage labour on their self-managed land and market most of their produce. I have, therefore, decided to lump the two categories together and have called them capitalist or feudal, depending on the overall structure.

With reference to the merchants and the money lenders, the two additional classes identified in the theoretical exposition (p. 253) I should point out that although in none of the villages do the money lenders form a class distinct from the class of capitalist farmers or the landlords, at least in two of them - in Jamira and to a lesser extent in Bajua - the merchants can be identified as a separate class. There are some households who live off trading and in so far as the means of reproduction of the peasant household is dependent on the market, they do in a broader sense, control this means of production. However, the data does not permit an intensive analysis of this class independent of the four classes identified.

Table 6.1.1

CLASS STRUCTURE AND RELATIONS OF PRODUCTION

	(1)	(2)	(3)	(4)	(5)	(6)	(7)		(8)
							As % of dispo- sable paddy	% share of sales	
Number of HH*	% share of HH	% share of area owned	Wage Labour		FL** As % of total labour	SHC ⁺ Net share (+) or paid (-) as % of dispo- sable paddy	Production Marketing		
			As % of total labour	% share employed					
<u>BAJUA</u>									
Rich farmers	8	3.7	37.7	97.4	40.7	2.6	9.2	48.8	60.1
Share-croppers	63	28.9	16.9	47.4	27.3	52.6	-35.6	12.0	17.9
Wage labourers	108	49.5	5.3	26.6	7.8	73.4	10.2	-	-
Peasants	39	17.9	40.1	50.0	24.1	50.0	1.31	18.9	21.9
All classes	218	100.0	100.0	56.4	100.0	43.6	-9.5	24.6	100.0
<u>BIDDYA</u>									
Rich farmers	5	6.2	29.3	84.1	28.9	15.9	25.9	58.6	39.5
Share-croppers	41	51.2	25.0	47.2	27.5	52.8	-22.8	20.0	22.0
Wage labourers	15	18.7	3.9	27.0	4.0	73.0	4.9	-	-
Peasants	19	23.7	41.8	46.4	39.5	53.6	-5.1	19.9	38.5
All classes	80	100.0	100.0	51.9	100.0	48.1	-4.1	25.1	100.0
<u>JAMIRA</u>									
Rich farmers	8	4.7	26.6	78.6	44.4	21.4	5.6	53.3	42.3
Share-croppers	46	26.9	17.8	23.9	12.4	76.1	-19.7	19.2	12.5
Wage labourers	30	17.5	8.7	5.3	1.8	94.7	2.8	-	-
Peasants	87	50.9	46.9	33.9	41.3	66.1	2.3	27.9	45.2
All classes	171	100.0	100.0	37.7	100.0	62.3	-1.3	30.7	100.0

Source : Field Work 1976-77

HH* - Households
 FL** - Family Labour
 SHC⁺ - Share-cropping

critically dependent for their subsistence on rented-in land; (iii) the wage-labourers who must depend on selling their labour in order to subsist; and finally, (iv) the peasants who are predominantly owner farmers producing primarily with family labour and for consumption rather than for the market.

Originally, the population of the sample villages was divided into six groups according to their differential access to the means of production, translated into production per head of population.¹ In Table 6.1.1 the six preliminary categories have been readjusted on the basis of the class analysis in the two preceding chapters, as follows :

Rich peasants includes all 'rich peasants' plus those 'surplus' peasants who depend predominantly on wage labour for production and market more than they consume;

Share-croppers includes all the 'subsistence' and 'below subsistence' classes ('poor' and 'landless') who share-crop; Wage labourers are those 'subsistence' and 'below subsistence' classes doing wage labour but not share-cropping; and finally Peasants incorporates those 'poor' and 'subsistence' classes not doing wage labour or share-cropping, plus all 'self-sufficient' and those 'surplus' farmers neither predominantly employing wage labour nor marketing a greater portion of their produce.

On the basis of this four class model the data can now be re-allocated in order to see whether the dominant mode of production is the same in all three villages or whether it differs.

In order to do this I have, in Table 6.1.1, incorporated all the major indices of production relations i.e., wage labour, share-cropping and marketing. The following points

1. See methodology, p. 27 - 31

emerge from the table :

1. The three villages are characterised by the predominance of three different classes. In numerical terms, Bajua has a predominantly wage labour population at almost 50% of total households; in Bidhya, as much as 51.2% of households depend for their livelihood on share-cropping and finally, Jamira is dominated by a peasant population at just over 50% of total households in the village (col.1).
2. In terms of land ownership, it is clear that the rich farmers dominate all three villages. In Bajua 3.7% of the households own 37.7% of the land; in Bidhya 6.2% of these households own 29.3% of the land in Jamira, 4.7% of the rich households own 26.6% of the land (cols. 1 and 2). Thus, it is clear that in all three villages, social formation is dominated by a contradiction between those who have land and those who do not. As has been shown in Chapters 4 and 5, this domination characterises the ways in which the union of land and labour is accomplished in the production process.
3. On restructuring wage labour and rent relations on the basis of the re-allocation of data and the new class formation, in terms of wage labour as a percentage of total labour use in production (col.3), the rich peasants in Bajua show an overwhelming dependence on wage labour. At 97.4% this is much higher than the figures for Bidhya and Jamira where dependence on wage labour is also quite significant at 84.1% and 78.6% respectively.
4. In terms of net-share received (or paid) as a percentage of disposable paddy, the 'rich peasants' in Bidhya receive more than a quarter (col.6) of their gross

produce as share-rent compared to their counterparts in Bajua and Jamira who receive respectively 9.2% and 5.6% of gross produce as share-rent.

5. In terms of marketed surplus (col.7), the rich farmers in all the three villages market between just below 50% (Bajua) and about 60% (Bidhya). In point of fact marketed surplus dropped substantially¹ following the rapid fall in production in Bajua as a result of the construction of the embankment in 1972. This would indicate the existence of a small but strong capitalist class in Bajua. This is further substantiated by the figures for 'expenditure as a percentage of income' (Table 5.2.6; col.1). Here re-investment in production at 22.1% and 25.6% of income for the 'surplus' and the 'rich' class categories respectively, well exceed the figures for the corresponding classes in Bidhya and Jamira.² Although the rich landowners in Bidhya market well over 50% of their produce (Table 6.1.1; col.7), they lack the entrepreneurial spirit of the capitalist farmers of Bajua. This is indicated not only by the fact that they spend only between 11% and 14% of their income of production (Table 5.2.6; col.1) but also by the fact that, unlike their counterparts in Bajua or in Jamira, a very high proportion of the proceeds from their marketed surplus is spent on conspicuous consumption and festivities (Table 5.2.6; col.8).
6. Jamira, on the other hand, is a distinctly petty commodity production village. This is indicated not only by the

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1. Villagers suggest that production in Bajua fell by up to 60% after 1973 following the building of the embankment. The embankment has also affected production in Bidhya but to a lesser extent (see Chapter 3).
 2. These are not strictly re-investment figures since they include the cost of production for subsistence paddy.

preponderance of the peasant class at over 50% of the population (Table 6.1.1; col.1), but also by their greater dependence on self-exploitation rather than on wage labour use. 66.1% of the total labour use of these peasant farmers is family labour (col.5) as against their wage labour use of only 33.9% (col.3). As regards their market involvement, that they produce primarily for family consumption rather than for marketing is indicated by the low marketing figure at only 27.9% of their disposable produce (col.7).

Thus, having measured these findings against the various indices for different modes of production, broadly we may now call the modes; capitalist in Bajua,; in Biddya - feudal¹ and in Jamira - petty commodity production. The social formation, therefore in Bajua is characterised by a contradiction between the capitalist farmers and the wage labourers in which the latter is forced to sell their labour to the former. In Biddya, this contradiction is not so much between the capitalist farmers and their wage labourers as between the rich landowners and their tenants (share-croppers). In Jamira, the social formation is structured by the dominance of a peasant class who depend on self-exploitation; in other words, the exploitation of family labour.

It is important to point out, however, that rent-relation, which is the dominant mode in Biddya, is also the second most important production relation in both Bajua and Jamira. It should also be noted that in Bajua and Biddya these share-croppers not only rent-in land from the local landowners but also from absentee landowners. In fact, since absentee landowners own over 30% and 40% of the land

1. Not to be confused with European Feudalism nor is this a vestige of European Feudalism (see Chapter 4).

for Biddya and Bajua respectively (Table 3.1.4), we may conclude that the share-croppers are substantially dependent on these absentee owners for their land. In Jamira on the other hand, as shown in Chapter 3, absentee ownership is almost non-existent. The importance of absentee ownership has already been considered in the last chapter and will be further examined later in a summary of the empirical evidence in support of the hypotheses suggesting the influence of ecology on the way class relations are structured.

Section II

The Interrelation : some a priori assumptions

Now that the three villages have been identified in terms of their modes of production, in this section these modes will be linked to ecology. In other words, I shall examine the extent to which these differences in production modes are due to differences in the ecology of the three villages, the indices of which have been explained earlier (Chapter 3). These four indices, or ecological variables, are related to a set of five class relation variables, which may be called the social variables, in order to see if, and how the ecological variables explain the difference in overall class structure between the three villages.

Initially, I have attempted to depict graphically the interrelation between the variables of interest. In all there are nine variables, four independent and five dependent. The independent variables are the ecological variables and my objective is to explore their influence on the dependent variables.

The ecological variables are (1) Land per Household in Efficiency Units (LEU); (2) Labour Productivity (LRP); (3) Accessibility to the market (ACC); and (4) Ecologically Based Diversity (EBD). The dependent social variables are (i) the degree of Differentiation (DIF); (ii) the degree of Share-cropping (SHC); (iii) Wage Labour use (WL); (iv) the degree of Market involvement (MKT); and (v) the extent of Usury (USY).

The ecological variables have been explained earlier, As regards the dependent variables, these are self-

explanatory but I should perhaps make it clear that by differentiation I do not mean a dynamic process of differentiation but a degree of differentiation at a given moment in time. This is important since it determines the nature of some of the causal connections that are being established.

It is now possible to proceed to formulate certain a priori assumptions based on existing literature, intuition and logic, that might be expected to hold, first of all between the dependent variables themselves, i.e. differentiation, share-cropping, wage labour, market and usury. Although no hypotheses will be formulated on the relationship between the dependent variables themselves, in order to understand how these variables interact or effect one another corresponding to the impact of a given independent variable on any of these variables, it is necessary to explain and demonstrate the postulated relationships between the dependent variables.

In the next step I would like to explore a similar set of postulated relationships by drawing directed or undirected arrows between the independent variables taken one at a time, and the dependent variables.¹

1. To help in deducing the signs of some of these paths between variables I have drawn some very elementary demand and supply curves. In Figure 6.2.1 for instance,

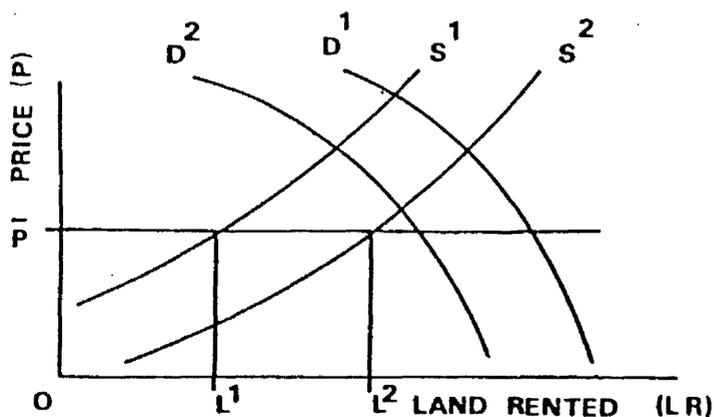


Figure 6.2.1.

It is assumed here that the independent variables are not themselves inter-connected and that, in principal, land in efficiency units, labour productivity and accessibility

1. Continued from previous page.

I am trying to predict the direction of change corresponding to variation in what I have called Land in Efficiency Units (LEU). Other things being equal, if in a village land in efficiency units is high then would one expect more or less share-cropping? I have therefore drawn a demand schedule and a supply schedule for land to rent. Here the price is taken as the crop share, and it is assumed, as is usual, that the higher the price, that is the higher the crop-share which the landlord can get, the greater the amount of land he is willing to give out on a share-cropping basis whereas the less will be the demand to take in land on a share-cropping basis. So we have the conventional demand and supply schedules which intersect at a certain point determining an equilibrium price (crop-share) and an equilibrium value for the amount of land that will be share-cropped. Here we may, however, make one supplementary assumption which is that, in the context of Bangladesh the crop-share is usually, in fact invariably fixed by custom. There is some scope for variation by using other methods such as charging an extra sum of money - a deposit or salami - from the share-cropper, or the landlord sharing some of the input costs which could cause the actual effective rate to deviate from the apparent customary rate but these are usually not significant so that for all practical purposes we can say that the crop-share is, in fact, conventionally fixed.

I have made a second assumption which is that, within the realistic range of availability of land in efficiency units and the existing crop-share there is always an excess demand for land to rent-in on the part of the poor farmers so that our demand and supply curves intersect above the equilibrium price line which is marked \bar{p} . From this it follows, in fact, that demand has virtually no effect on determining how much land will be share-cropped. In effect since there is always an excess demand, if the landlords want to give out more land for share-cropping they can always do so at the going price. So that in situation 1 with the supply curve being S_1 and demand curve being D_1 , the

can differ with no necessary connections between them.¹
It will then be possible to work out the total effect
of a postulated change in any of these independent

1. The independent variables, although not strictly independent, are sufficiently independent to make independent analysis possible. For instance, although there may be a strong relationship between Accessibility and Land in Efficiency Units in that more Land in Efficiency Units may not necessarily lead to higher production if market Accessibility is poor, areas with uniform Accessibility may have varied Land in Efficiency Units.

1. Continued from previous page.

actual amount of land share-cropped is L_1 . Whereas in situation 2, where there is more Land¹ in Efficiency Units available, other things being equal (the degree of differentiation and so on) every household in the village has a little more Land in Efficiency Units. This will mean that the rich farmers have more land to give out on a share-cropping basis at any given price. So the supply curve will shift to the right to S_2 . At the same time, the poor farmers will also have a little more Land in Efficiency Units and therefore will need more of their domestic labour to work on their own land. Consequently they will have less labour to allocate to other users and therefore, less need for land to share-crop. In this situation, the demand curve for land to share-crop will shift to the left from D_1 to D_2 . So that if it were in fact a completely free market with prices being competitively determined, then the net result would be an unambiguous drop in the crop-share (price) but with the direction of change in the amount of land being share-cropped, that is, whether it will be more or less than the previous amount, not being determinate. However, since we have assumed that there is always an excess demand, we can in fact look at the intersection of the conventional price line with the supply curve and we see that in this case because the supply curve has shifted to the right, unless the demand curve has in fact shifted so far that the new intersection will be below the conventional price line, which we assume is not the case, the new amount of land rented-in (LR) will be larger than the old amount and will go up to L_2 . Therefore,

variables taking each of them in turn and tracing all possible paths from the independent to the dependent variables. The objective is to establish unambiguous predictions as to the direction of the net impact. I

1. Continued from previous page.

in the flow chart a positive relationship has been indicated between LEU and SHC.

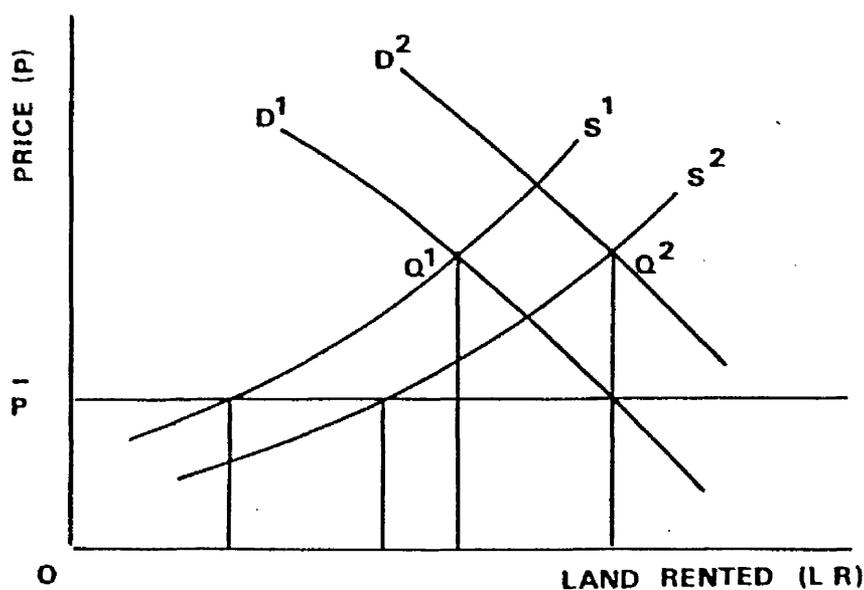


Figure 6.2.2.

Figure 6.2.2 predicts the variation in share-cropping if, other things being equal, the amount of differentiation in land increases. Again I have drawn the traditional demand and supply curves.

Here in situation 1, S_1 and D_1 are respectively the supply and the demand curves and \bar{P} , as before, is the conventionally fixed price level, that is, crop-share. In situation 2, the degree of differentiation increases. With a rise in the degree of differentiation, at any given price, more land will be demanded by the poor households because they will then have less land than

shall of course, explain the reasoning for the signs put on the arrows which embody the partial hypotheses. In other words, the network of lines connecting all the variables indicates the direction and the kind of causality involved.

The Dependent Variables

Let us start with the dependent variables and within them let us begin by considering the influence of differentiation on each of the variables in turn.¹

(i) DIF, SHC and WL

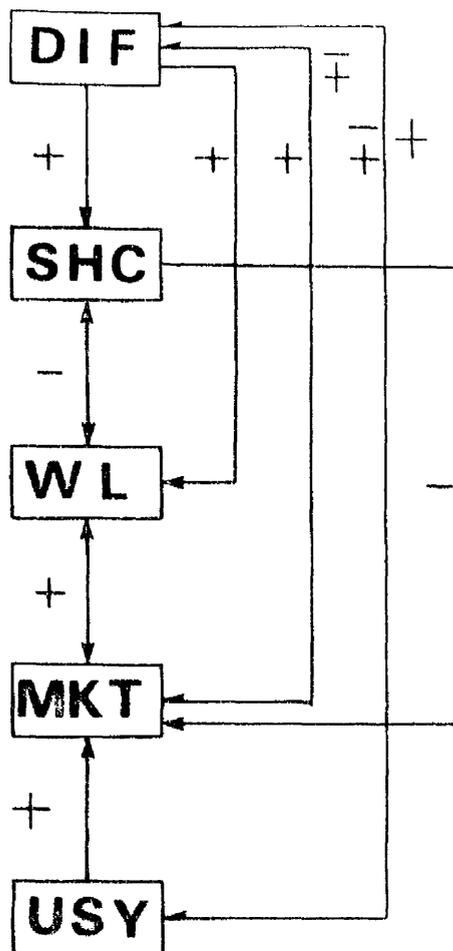
If there is for instance, more differentiation, can we expect more or less share-cropping; or neither? By more differentiation I mean that the richer peasants have more surplus land which they cannot cultivate

1. It must be noted that this is a partial analysis.

1. Continued from previous page.

before; since it will have been transferred to the richer people. So the poor people will have a greater excess of family labour, less land for themselves, and naturally they will need land to cultivate on some terms. They could, of course, cultivate as wage labourers or on other terms, but we are assuming every thing else is the same, therefore they will in fact, demand more land at any given price. So the demand curve shifts to the right to D_2 .

At the same time, because the rich people now have more land than before, they will also be willing to rent out at any given price and therefore, the supply curve will also shift to the right to S_2 . Therefore, in situation 2 the only difference from the previous situation is that, even if there was not a conventionally fixed price (\bar{P}), there would be an unambiguous increase in the amount of land being cultivated under the share-cropping arrangement. Since both curves have shifted to the right, the new intersection point will surely lie to the right of the old one at Q_2 .



DIF - Differentiation
 SHC - Share-cropping
 WL - Wage Labour
 MKT - Market
 USY - Usury

Fig. 6.2.3 POSTULATED RELATIONSHIPS
 BETWEEN SOCIAL VARIABLES.

with their family labour while the poorer peasants have surplus labour. Therefore, there is both a greater demand for, and a greater supply of, non-family labour which can be utilized either through a share-cropping arrangement or through a wage labour arrangement. The choice between these two will be decided by factors other than the fact of differentiation as such. So in a partial analysis, it is safe to say that the direct impact of differentiation on both share-cropping and wage labour would be positive and in Figure 6.2.3 is marked as such.

Both share-cropping and wage labour, on the other hand, presuppose a certain degree of differentiation although neither of them actually causes differentiation except that indirectly, share-cropping could, through a different mechanism, usury for instance (Bhaduri:1973), accelerate the process of differentiation. It is in fact the degree of differentiation that largely determines the level of share-cropping and/or wage labour. Therefore, neither SHC nor WL, other things being equal, necessarily has any effect on DIF.

(ii) DIF and MKT

The impact of differentiation on market is marked as positive mainly because, in a more differentiated situation, more of the surplus will accrue to the rich peasants who will have hardly any use for it except to market it. Some ceremonial distribution within the village is possible if the rich peasants give feasts on festive or religious occasions, or they may lend part of it but still, by

and large, they can be expected to market most of it. This relation, of course, can work both ways. While marketing is one of the factors working towards greater differentiation, it can also work towards greater equity when market penetration leads to what has earlier been termed 'blanket commercialisation'.

(iii) DIF and USY

This is one of the more complex of the interrelationships and therefore it is harder to make assumptions. Ordinarily it would seem that more differentiation means a greater demand for loans. But, of course, in a situation where there is no differentiation whatsoever, all peasants are in fact equal and there will be no usury. Then if some differentiation is introduced i.e. there are marginal and poor peasants as well as landless and rich farmers, then we will see that differentiation is indeed associated positively with usury. So in a way, it is partly a question of where we begin. One might even say that there is a curvilinear relationship between usury and differentiation. Starting with low differentiation, as it increases, usury also increases but there may come a point where the dependent peasantry - the poor and the subsistence farmers - have been so expropriated that it is no longer in the interests of the rich peasants to lend them money. Beyond this point, therefore, the greater the differentiation, the less usury there will be. Thus, if for instance, differentiation is plotted on the horizontal axis and usury on the vertical axis, then there may be a degree of differentiation at which usury is at a maximum and past

which usury declines. The question is therefore, whether the level of existing differentiation in Bangladesh is to the left or right of that maximum. In view of this, this relationship is marked as both positive and negative.

The effect of USY on DIF on the other hand, must be positive. Although it has been argued earlier that usury may in fact have a decelerating effect on the process of differentiation in that it may prevent the borrower from selling his land immediately, it does not actually prevent the process. In other words, usury does not provide the same opportunity, for instance to go into business or some other enterprise which may ultimately help the borrower to stave off the pauperisation process, as an outright gift of capital might.

The second dependent variable i.e. share-cropping is examined below in relation to the other variables.

(iv) SHC and DIF

Share-cropping presupposes a degree of differentiation, but share-cropping itself does not cause differentiation although it could, through different mechanisms, usury for instance (Bhaduri:1973), accelerate the process of differentiation. It is in fact the degree of differentiation that determines the level of share-cropping. Therefore, we could say that SHC does not, other things being equal, necessarily have any effect on DIF.

(v) SHC and WL

Other things being equal, by definition if one increases, the other decreases. A surplus landowner who has more land than he can cultivate using family labour must choose between two forms of external labour. He can either cultivate his land by directly hiring labour or he can have cultivated indirectly with share-crop labour. Naturally the more of one form will imply the less of

the other form. This interrelation is therefore marked as negative.

(vi) SHC and MKT

Other things being equal, the more share-cropping the less involvement there will be in the market at least by the direct producers. Firstly, because they will get a great deal of what they need in kind and secondly, on the one hand, the landowner will have less surplus in terms of produce than he would have otherwise i.e. if he cultivated with hired labour and on the other, the share-cropper, having been exploited of his surplus labour will not normally be left with any surplus to market. Therefore, here there is a negative relationship.

The effect of MKT on SHC, on the other hand, in accordance with the general trend in the literature (Lenin:1964; Shanin:1972),¹ is likely to be accompanied by increased wage labour use rather than share-cropping and is therefore negative.

(vii) SHC and USY

Even though in the literature (Bhaduri:1973) there does seem to be a presumption that share-cropping is associated with more usury, as I have indicated earlier (see p.343) there is no compelling argument for this. One of the standard arguments is that, because the share-cropper is more likely to have some land, he is a better credit risk and therefore he has greater access to credit. The problem with this argument is that there is nothing that says that the wage labourer also cannot have a little land. In fact, it has been found that in Bangladesh, a great deal of wage labour does come

1. See footnote 3, p.423. (405)

from poor peasant households.¹ The other argument is that the landlord employs usury to further tie down his share-cropper.² However, as I have argued before, there is no reason why in a labour surplus economy it is at all necessary to tie labour down and therefore, I would argue that there really is no necessary connection between share-cropping and usury. Following the same argument, it is logical to suggest that there is no necessary relation between usury and wage labour either.

The third dependent variable (WL) is now examined in relation to the other variables.

(viii) WL and MKT

As wage labourers are predominantly paid in cash, it is reasonable to assume that the more money there is in the village, the more involvement there will be in the market as the wage labourers will use their money not only to buy rice but also other industrial products. In addition, the more involvement there is in the market, the more money there will be in the village and the more convenient it will be to pay labourers in money rather than in kind (Lenin:1964; Shanin:1972).³ Therefore, wage labour and market in fact have a two way positive relationship.

(ix) MKT and USY

I am sceptical of the existence of any necessary relationship between the two, but Bhaduri has suggested that there is a relationship and his

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1. Bardhan, K.:1973; Rudra and Biswas:1973; Muktada:1975; Rudra and Mukhopdhyaya:1976.
 2. Bhaduri, A.:1973.
 3. Lenin:1964:175-382; 542-606; Shanin:1972:chapters 5-7.

hypothesis is that for the relatively poor peasants a great deal of marketing is in fact, forced marketing caused by usury. I have, however, tested his hypothesis¹ and found that the poorest classes are forced to sell whatever they have to sell in the period immediately after the harvest when market prices are lowest and it makes very little difference whether or not they are indebted. However, a correlation has been seen to exist between the degree of indebtedness and the amount marketed in the case of the better off farmers. So on balance the relationship between market and usury seems to be positive.

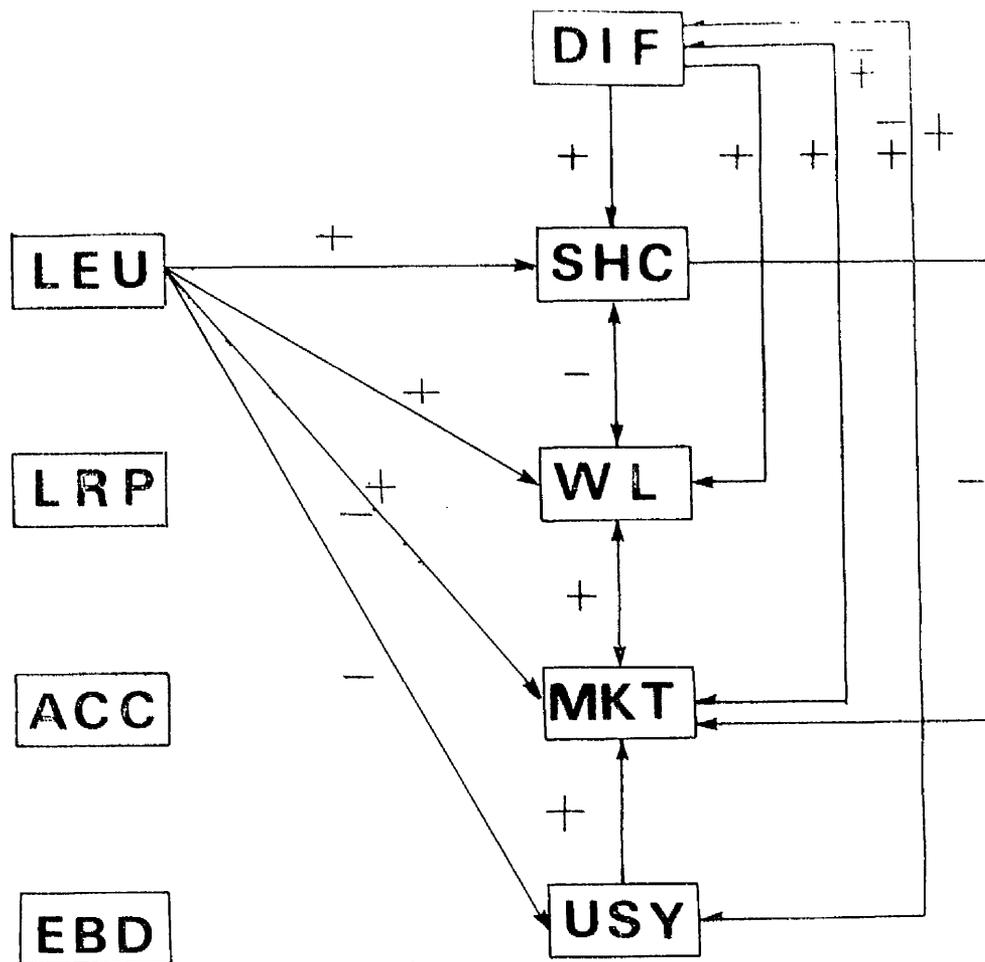
Now that the a priori connections between the dependent variables have been established, what remains is to justify the directions (positive or negative) assigned to the lines connecting the independent variables with the dependent variables.

1. See Chapter 5, pp.359-362.

Postulated Relationships between the Independent and the Dependent Variables

(i) LEU and DIF : On the one hand, it could be argued that if there is more land in efficiency units per head, the rich will be richer and therefore, they may be able to get even richer over time because they will have more of a surplus. So other things being equal, say for instance, the penetration of market being equal, the rich in a village with more land in efficiency units may have a chance to get rich faster compared with the poor. Whereas a village with less land in efficiency units is likely to stagnate and differentiation is likely to be arrested.

The problem is, however, that differentiation can be seen either as a static or a continuous process. While more land in efficiency units might indeed lead to greater differentiation over time, it is difficult to apply the same argument to the study of a static situation and say that at any given point in time one is likely to find that areas with more land in efficiency units are more differentiated. More land in efficiency units in itself cannot mean that there must be a differentiated class structure. It seems in fact that to explain a process of differentiation over time one needs at least two pieces of information, land in efficiency units as well as the extent of differentiation at time zero. If there was differentiation to begin with, then it will increase with time. On the other hand, if there was no differentiation to begin with, then of course there is no obvious reason why this should increase over time just because there is more land in efficiency units in the village. Therefore, it is difficult to postulate a particular relationship between Land in Efficiency Units and Differentiation.



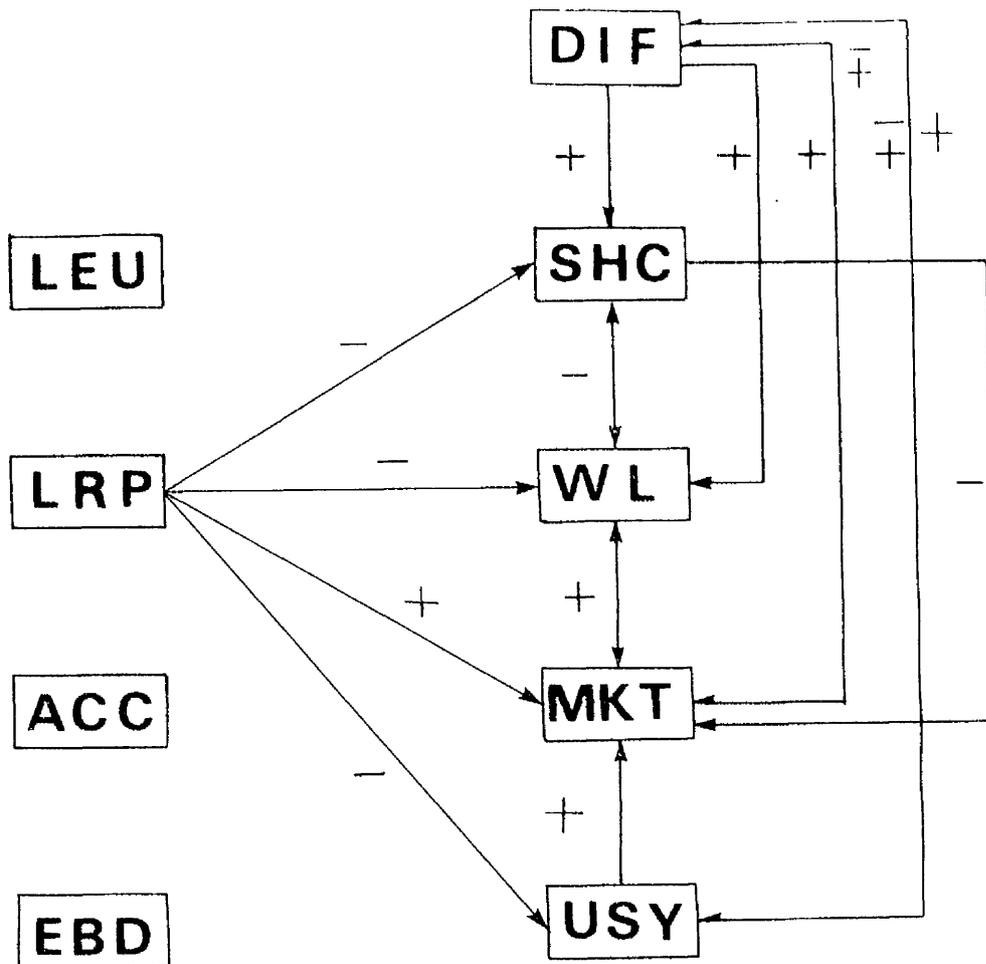
DIF - Differentiation
 SHC - Share-cropping
 WL - Wage Labour
 MKT - Market
 USY - Usury

LEU - Land in Efficiency Units
 LRP - Labour Productivity
 ACC - Accessibility
 EBD - Ecologically Based Diversification

Fig. 6.2.4 POSTULATED RELATIONSHIPS BETWEEN LEU AND THE SOCIAL VARIABLES.

(ii) LEU and WL, SHC

In Figure 6.2.4 the assumption, based on partial analysis is that the relationship between this independent variable (land in efficiency units) and the two dependent variables - share-cropping and wage labour - is a positive one. The more land in efficiency units there is available per head of the population (although here it is calculated according to farm size), other things being equal, the more will be the extent of share-cropping. This is because, if there is more land with the richer farmers then they will need extra labour to cultivate it either through share-cropping or through wage-labour, although at the same time the poorer peasants, because they would also have more land the distribution being the same, would have a lower demand for share-cropped land. The latter point is not significant since we are assuming that, in the context of Bangladesh, the demand for land is never the binding constraint, that in effect in all villages there is, at the existing price or share-rate, an excess demand for land so that the amount of land rented out depends essentially on the supply and not on the demand. Therefore, I am arguing that other things being equal, more land available per head will mean more share-cropping. Actually it will mean more share-cropping, or more wage-labour or both. As has been argued in the case of differentiation, which predominates will depend not on the amount of land available but on other factors, such as market for instance. But this will be an indirect influence and will be traced later. The direct influence on both wage labour and share-cropping, however, is expected to be positive.



DIF - Differentiation
 SHC - Share-cropping
 WL - Wage Labour
 MKT - Market
 USY - Usury

LEU - Land in Efficiency Units
 LRP - Labour Productivity
 ACC - Accessibility
 EBD - Ecologically Based Diversification

**Fig. 6.2.5 POSTULATED RELATIONSHIPS
 BETWEEN LRP AND THE SOCIAL VARIABLES.**

(iii) LEU and MKT

If there is more land per head or household, other things being equal, then there will be more produce available for marketing and one presumes that much of the surplus produce will in fact be marketed. Therefore, the relation between LEU and MKT is shown in Figure 6.2.4 as a positive one.

(iv) LEU and USY

The relation between land in efficiency units and usury is shown as negative. This is because the number of loans given or taken is by and large, demand determined, and if there is more land per head available, then fewer people will need to resort to usersers.

Labour Productivity and the Dependent Variables

In Figure 6.2.5 labour productivity is related to the dependent variables.

(i) LRP and DIF

For reasons explained earlier (see LEU and DIF) no definite relationship can be postulated between labour productivity and differentiation.

(ii) LRP and WL, SHC

The relationship between labour productivity and share-cropping, and labour productivity and wage labour is fairly straight forward. If labour is more productive in a certain area, then this means, other things being equal, that less labour is needed for a given level of production. For the rich farmers (a) whatever family

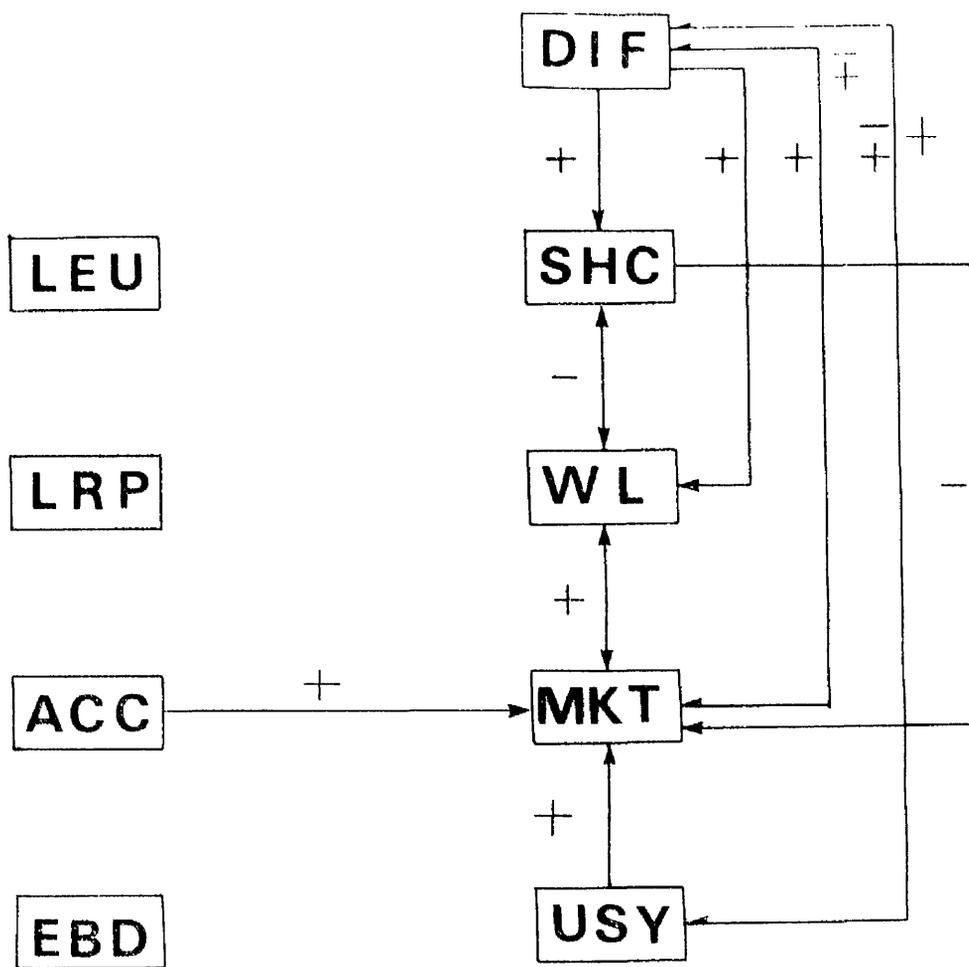
labour they are willing to use, a more productive area will enable them to cultivate more of their land than in a low labour productive economy; and (b) even if they do not want to work and instead want either to hire wage labour or rent-out their land to share-croppers, they would need, in either case, fewer people. In Bangladesh, by and large, the number of families who supply no family labour at all is rather low. Even most of the rich farmers work in the fields occasionally. Therefore, it can be reasonably argued that where labour productivity is higher, more land will be cultivated by family labour so that there will be less share-cropping and similarly less wage labour.

(iii) LRP and MKT

As regards the relationship between labour productivity and market, I have postulated a positive relationship. If nothing differs between two villages except that in one, labour is more productive, then this village is likely to market more. The extra productivity could, of course, be taken in the form of leisure and therefore less work would be done, but the chances are that the increase will be used to enjoy a little more leisure but also more income and this can be done by marketing. So on the whole, it is legitimate to postulate a positive relation between labour productivity and marketing.

(iv) LRP and USY

Between labour productivity and usury, however, I have postulated a negative relationship. Other things remaining the same, the more labour productive a village, the better off will be the poor and the less they will have to borrow.



DIF - Differentiation
 SHC - Share-cropping
 WL - Wage Labour
 MKT - Market
 USY - Usury

LEU - Land in Efficiency Units
 LRP - Labour Productivity
 ACC - Accessibility
 EBD - Ecologically Based Diversification

**Fig. 6.2.6 POSTULATED RELATIONSHIPS
 BETWEEN ACC AND THE SOCIAL VARIABLES.**

Accessibility and the Dependent Variables

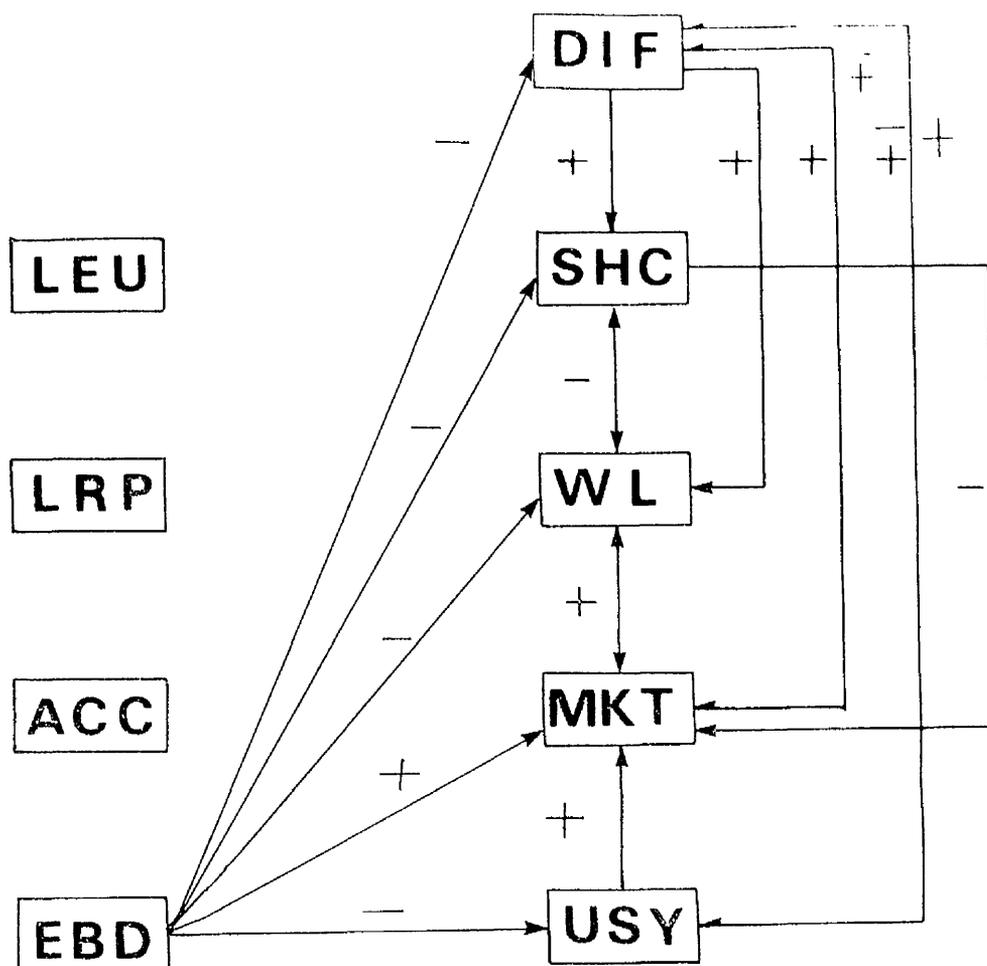
In Figure 6.2.6 accessibility is related to the dependent variables - perhaps the simplest relation of all. By definition accessibility can only be referred to in terms of the market. Thus, the labour market and the commodity market are two important dimensions of accessibility. In the case of labour mobility, however, it is very unlikely that the kinds of differences that can be observed in Bangladesh will make a significant difference to the degree of labour mobility in itself or that distances or difficulties will prove insurmountable. If people want to travel and if they have a place and a job to go to, then by and large, the inaccessibility of the village itself is unlikely to prevent them from travelling. However, what percentage of goods are marketed and how, will be determined by accessibility to the market measured in terms of speed, cost and partly by convenience.

Therefore the only direct link between accessibility and any of the dependent variables is in fact the one between accessibility and the market. Here a positive relation is postulated because if a village is more accessible, it must lead to more involvement in the market.

In Bangladesh, however, market forces are powerful enough so that accessibility determines not so much the degree, as the kind of commercialization. If a village is close to a market small direct producers have direct access to the market and there is less opportunity for merchant capital to reap a profit. Hence this may eliminate one of the sources of accumulation for the richer strata of the peasants and provide some stability to the small (petty commodity producing) peasants.

Diversification and the Dependent Variables

Finally, in Figure 6.2.7 ecologically based diversification (EBD) is linked to the dependent variables. By diversification is meant, as explained earlier, agriculture-related non-agricultural activities which may be affected by ecological factors.



- DIF - Differentiation
- SHC - Share-cropping
- WL - Wage Labour
- MKT - Market
- USY - Usury

- LEU - Land in Efficiency Units
- LRP - Labour Productivity
- ACC - Accessibility
- EBD - Ecologically Based Diversification

**Fig. 6.2.7 POSTULATED RELATIONSHIPS
BETWEEN EBD AND THE SOCIAL VARIABLES.**

It may be argued that the more diversified the non-agricultural activities are, the more the poorer sections of the community are likely to benefit, as they are likely to respond more readily to diversified work opportunities especially during the off-peak periods when there is a surplus of labour and it is very difficult to find fixed employment. Thus, other things being equal, diversification is likely to cause reduced differentiation. In other words, here there is a negative relationship.

The relationship to both the share-cropping and wage labour variables will also be negative. Although there is a constant demand for share-cropping land in Bangladesh, other things remaining the same, the greater the extent of diversification the less will be this demand. Similarly, although the effect on wage labour will depend on the relative rates of return, given some degree of diversification the effect on wage labour is likely to be negative.

The relationship with market, will however, obviously be positive. Diversification will not only involve selling whatever produce they may want to sell in the market, but also buying certain of the raw materials needed for these products in addition to the peasants' subsistence needs. This will not only mean greater market involvement on their part but also, generally, greater market penetration.

Finally, as regards usury, in the sense that diversification reduces differentiation and brings stability to peasant societies, it will make them less dependent on usury. Thus, in its relationship to the four dependent variables, ecologically based diversification will have a negative effect on differentiation, share-cropping, wage labour and usury but a positive one on market.

The above diagrams (Figures 6.2.3 - 6.2.7), based on a priori assumptions derived from existing literature, are an attempt to illustrate the sort of relationship which can be expected between the set of four, independent, ecological variables and a set of five dependent variables. I have described above, however, only the one to one relationships between variables. It is obvious from the diagrams that indirect relationships also exist (i.e. one variable may affect another through any one of a number of pathways via other variables) and that the whole system of linkages is extremely complex. It is important to note this, but if indirect linkages were to be included in the process of postulating the impact of one variable on another, then the results would be uniformly indeterminate unless the positive impact significantly outweighed the negative ones or vice versa. This however, would depend on how sharply defined the ecological variables were from village to village.

I do not believe therefore, that it is necessary or, indeed, possible at this stage to investigate indirect relationships since the existence of a direct relationship must be proved before an indirect relationship can be postulated. Once direct relationships have been established, and perhaps expressed in quantitative terms it may be possible to test indirect relationships, but at this stage the one to one impact of one variable on another has still to be proved. This is what has been attempted in the next section.

Section III

Testing the Hypotheses

In this section I have summarized the hypotheses which have been suggested in the preceding chapters as well as those that have emerged from the a priori assumptions based on logic and existing literature indicating the effects ecological variables have on the relations of production (the social variables). Table 6.3.2 is a tabular representation of these hypotheses.

The Hypotheses

- A. The more land in efficiency units there is other things being equal, the more reliance on share-cropping; the more family labour use on owned and/or share-cropped land compared to hired labour; the less wage labour and possibly the more marketing there will be. Finally, to the extent that share-cropping leads to greater indebtedness, this will also increase indebtedness.

- B. More labour productivity, other things being equal, should mean less need for outside labour and therefore more reliance on family labour. This will provide opportunity for surplus and will lead to more marketing. Greater labour productivity will mean less share-cropping and therefore, less usury and less differentiation.

- C. In a village with easy and cheap accessibility to the market allowing small producers to sell their goods directly in the market without having to go through trading intermediaries, we expect less

differentiation (both as a state and a process), less wage labour and therefore more family labour, less share-cropping and therefore less usury. This has earlier been termed 'blanket commercialization' i.e. where market penetration is made without the mediation of merchant capital. Thus, in this, the traditional hypothesis has been inverted.

- D. The higher the level of ecologically based diversification, the greater should be the income especially of the poorer sections of the village, and therefore the lower the level of differentiation. Other things being equal, this will also mean less need for share-cropping as well as wage labour, and therefore more family labour. In addition greater diversification will inevitably mean greater involvement in the market. Finally, in the sense that it will reduce the vulnerability of the weaker classes it will make them less dependent on usury.

The point is, do any of these sets of hypotheses indicate a particular mode of production? In other words, is it possible to predict on the basis of these hypotheses that more or less of any of the ecological variables - land in efficiency units (LEU), labour productivity (LRP), accessibility (ACC) or ecologically based diversification (EBD) - will lead to any particular mode of production and if so, what these are.

Let us examine the various patterns that have emerged from the four sets of hypotheses :

- (i) From LEU it is hypothesized that (a) more of LEU means more SHC, FL, MKT and USY; on the other

hand (b) less LEU means more WL.

- (ii) From LRP it is hypothesized that (a) more LRP means more FL and MKT; and (b) less LRP means more WL, SHC and USY.
- (iii) From ACC it is predicted that (a) more ACC will mean more FL and MKT and (b) less ACC will mean more WL, SHC and USY; and finally
- (iv) From EBD it is hypothesized that (a) the more EBD there is, the more FL and MKT there will be; and on the other hand (b) the less EBD there is, the more WL, SHC and USY there will be.

Is it now possible, on the basis of these various patterns to say, for instance that '(a)' represents one mode of production and '(b)' another?

The critical indicators of the various modes of production, as has been explained in some detail earlier, are wage labour (WL) and marketing (MKT) for capitalist mode of production; rent relations or share-cropping (SHC) often accompanied by usury (USY) for feudal mode of production; family labour (FL) for peasant mode of production; and finally family labour (FL) and marketing (MKT) for petty commodity production.

On the basis of this neither of the alternatives in the first set of hypotheses can be said to fall clearly into any mode of production. In the second set however, '(a)' indicates a petty commodity mode (PCP) whereas '(b)' could mean either a capitalist mode (CMP) or a feudal mode

(FMP) depending on the dominance of wage labour relation or share-cropping relation and this is likely to be determined by other factors which may include other ecological factors. In the third set of hypotheses '(a)' indicates more of a petty commodity mode (PCP) with dominance of family labour use and marketing and '(b)' represents more of a feudal mode of production (FMP). Lastly, in set four, '(a)' again represents a petty commodity mode whereas '(b)' a feudal mode.

Our purpose therefore, is now two fold. Firstly, to test the four sets of hypotheses that we have summarized on the basis of our earlier formulations in this study, against our actual findings in the three villages; and secondly, to see how far the various modes of production indicated by these hypotheses corresponding to the different ecological variables, hold for the villages.

Table 6.3.1 gives an ecological ranking for the three villages. For our purposes at the moment, however the most important columns are 3, 5, 6 and 7 showing respectively labour productivity, accessibility, land in efficiency units and ecologically based diversification. In terms of labour productivity, Bidhya appears to be more productive. In terms of land in efficiency units, however, although there seems to be more land in efficiency units per household in Bidhya compared to the other two villages, the difference between Bidhya and Jamira is not statistically significant.¹ Similarly, in terms of accessibility and diversification although Jamira ranks first, both Bidhya and Bajua are more or less equally accessible from the national market² and ecologically equally diversified.

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1. For details of the statistical significance of ecological ranking see Table 6.3.1 and Appendix IV.
 2. By national market is meant the market centre which is directly connected to and from which goods are directly transported to different parts of the country.

Table : 6.3.1 ECOLOGICAL RANKING OF THE THREE VILLAGES
 (1) (2) (3) (4) (5) (6) (7)

Pop. ¹ Density	Average ² Farm Size*	Labour ³ Product- ivity*	Land ⁴ Product- ivity*	Accessi- bility ⁵	Land in Efficiency Units*	Extent of Diversifi- cation				
							ER**	ER	ER	ER
BAJUA 1159	2 2.36	1 .31	3 3	10.20	3 low	2 2	2.36	2 2	low	2
BIDDYA 897	3 2.30	1 .76	1 1	14.96	2 low	2 2	3.37	1 1	low	2
JAMIRA 3850	1 1.54	2 2	2 .37	22.30	1 high	1 1	3.36	1 1	high	1

* Where villages are ranked separately, the difference between them is significant at the 95% level of confidence. For statistical details, see Appendix

** Ecological Ranking.

1. Population density per square mile based on 100% census.
2. In acres.

3. Labour productivity is the average production of rice in maunds per man-day.
4. Land productivity is the average production of rice in maunds per acre of land.
5. See Table 3.5.1

For Land in Efficiency Units and Extent of Diversification see pp. 202 - 203
 N.B. This table appears earlier as Table 3.5.2 and is shown here to facilitate use of the following two tables (6.3.2 and 6.3.3)

Source Field Work 1976-77

Thus in Table 6.3.2, following the hypotheses, the three villages are ranked in accordance with expectations in terms of the various social variables i.e., market (MKT), share-cropping (SHC), wage labour (WL), family labour (FL), usury (USY) and differentiation (DIF).

Here it is predicted that Biddya and Jamira, which have slightly more land in efficiency units will demonstrate more share-cropping, more family labour use, less wage labour, more marketing and more indebtedness and therefore greater differentiation. The positive predictions are indicated in Table 6.3.2 by the figure 1 (from Table 6.3.1. Col.6) for LEU and the negative prediction (WL) by 2.

The ranking of the three villages in terms of labour productivity is, however, more clearly defined and is indicated by the figures 1, 2, and 3 respectively for Biddya, Jamira and Bajua (Table 6.3.1; col.3). In the predictions, however, following Hypothesis B, it is suggested that the greater the labour productivity the lower the level of wage labour, share-cropping (and therefore usury) and in turn differentiation there will be. Thus here we have indicated these negative predictions by reversing the LRP (Labour Productivity) rankings for the three villages. However the positive relationship in the case of family labour (less wage labour must mean more family labour) is indicated by maintaining the LRP ranking of the villages.

In terms of accessibility, on the other hand, the three villages fall into two categories - Jamira having high accessibility and Bajua and Biddya low accessibility (Table 6.3.1; col.5). This has in fact, been more clearly demonstrated in Table 3.5.1. Therefore, following

Table 6.3.2

ECOLOGY AND RELATIONS OF PRODUCTION : PREDICTIONS

	MKT			SHC			WL			FL			USY			DIF		
	LEU	LRP	ACC EBD															
BAJUA	2	3	2(F)	2	1	1	1	1	1	1	1	2	3	2	2	1	1	1
BIDDYA	1	1	2(F)	1	3	1	2	3	1	1	1	1	1	2	1	3	1	1
JAMIRA	1	2	1(B)	1	2	2	2	2	2	1	2	1	2	1	2	2	2	2

Table 6.3.3

RANK ORDER BASED ON RELATIONS OF PRODUCTION*

	MKT		SHC		WL		FL		USY		DIF	
	Value ¹	Rank	Value ²	Rank	Value ³	Rank	Value ⁴	Rank	Value ⁵	Rank	Value ⁶	Rank
BAJUA	24.6	2	-9.6	1	56.4	1	43.6	2	38.1	1	0.71	1
BIDDYA	25.1	2	-4.1	2	51.9	1	48.1	2	23.7	2	0.59	3
JAMIRA	30.7	1	-1.3	3	37.7	2	62.3	1	19.3	3	0.61	2

1. Percentage of gross produce.
 2. Net share paid
 3. Percentage of total labour.
 4. Percentage of total labour.
 5. Percentage of indebted households.
 6. Gini concentration ratio.
- * For statistical details, see Appendix IV

the hypothesis C, Jamira would be expected to have less wage labour, more family labour, less share-cropping and less usury. Here again, the positive predictions (more MKT and more FL use) are indicated by maintaining the ACC (Accessibility) ranking of the three villages and the negative predictions (less WL, less SHC and less USY) are indicated by reversing the accessibility rank order (from Table 6.3.1). In market (MKT) predictions, however, in addition to the ranking indicated by 1 and 2 (indicating high and low accessibility), the kind of commercialisation - whether 'blanket' or 'funnel' - is also predicted as expected in the three villages, and these are indicated respectively by 'B' and 'F'.

Similarly in the predictions from ecologically based diversification (EBD), the villages are grouped into two categories, Jamira being ecologically more diversified and Bajua and Biddya relatively less diversified. Hypothesis 'D' predicts that the higher the level of EBD the lower will be the level of differentiation, share-cropping as well as wage labour and therefore the higher the level of family labour. Higher EBD will also mean greater involvement in the market and less usury. Once again, in Table 6.3.2 the positive predictions have been indicated by maintaining the EBD ranking from Table 6.3.1 and the negative ones by reversing them.

Thus, Table 6.3.2 represents my hypotheses in terms of a series of predictions based on the relationships between four major ecological variables - land in efficiency units (LEU), labour productivity (LRP), accessibility (ACC) and ecologically based diversification (EBD) - and the social variables such as market, wage

labour, family labour, share-cropping, usury and differentiation.

In order to test these hypotheses, in other words, to see how far the predictions are valid, it is necessary to compare these predictions with the data for the above social variables.

Table 6.3.3 gives the actual figures for the different social variables and their ranking in the three villages.¹ If these are compared with the predictions in Table 6.3.2 we find that the predictions for land in efficiency units (LEU) on market (MKT) are borne out by the actual finding in that both Bidhya and Jamira market more than Bajua as predicted. However, the actual difference in marketing between Bidhya and Jamira could not be predicted as the LEU ranking (Table 6.3.1; the LEU ranking between Bidhya and Jamira being insignificant) did not allow such predictions.

The predictions for LEU on wage labour also hold. Strictly speaking the predictions here are partially borne out by the actual ranking between the three villages in that although Jamira clearly demonstrates less wage labour use than Bajua as predicted the difference in the predicted ranking between Bajua and Bidhya could not be substantiated as statistically (Table 6.3.3) this difference is insignificant. This, however, does not mean that Bidhya does not in fact use less wage labour than Bajua as can be seen from the actual figures. So it can be concluded that the predictions for LEU on wage labour are largely, but not fully substantiated.

On share-cropping (SHC), usury (USY) and differentiation

1. Although these figures, which are based on aggregate data, show differences between the villages for each variable, the differences are not necessarily reflected in the ranking. The ranking is based on the statistical significance of these differences. Where the differences are not statistically significant, no difference in ranking has been made between the villages.

(DIF), on the other hand, the predictions for land in efficiency units do not seem to hold.

The predictions for labour productivity (LRP) hold for Bajua in the case of share-cropping (SHC), wage labour (WL), and usury (USY). In the cases of share-cropping and usury although the predicted rank order between the other two villages is not maintained in the actual findings, that both Bidhya and Jamira have less share-cropping and less usury compared to Bajua is clearly recorded in the actual position. The predicted difference between Jamira and Bajua in wage as well as family labour use is also substantiated. The predictions can also be said to be partly valid on market (MKT) in that, although the order is not the same, the point that both Bidhya and Jamira market more than Bajua seems to hold when compared with actual findings in Table 6.3.3. The predictions for labour productivity on differentiation (DIF) hold for all the three villages.

In the case of accessibility (ACC) - where we have one highly accessible (Jamira) and two less accessible villages (Bajua and Bidhya) the latter two villages cannot be separated on the basis of accessibility and therefore cannot be ranked individually as regards predictions for share-cropping. Although the actual findings show that Bidhya and Bajua have significantly different levels of share-cropping, since the individual values for both are more than that for Jamira, the predictions are valid. For the same reason the predictions for usury (USY) are valid when compared with the actual findings.

Thus we find that all the predictions relating accessibility and the social variables (MKT, SHC, WL, FL and USY) hold with the exception of differentiation (DIF). However, even here, although the position of Bidhya has been reversed in the actual finding the predictions ranking Bajua and Jamira hold.

Similarly, in the case of the last of the ecological variables, ecologically based diversification (EBD) - where again there are only two categories of villages, Jamira being more and Bajua and Bidhya being less diversified - all the predictions relating EBD and the social variables hold with the exception of differentiation (DIF) where we observe only partial validity in that predictions for only two of the three villages (Bajua and Jamira) hold.

Thus it can be concluded that, so far as these villages are concerned, of the four ecological variables, accessibility to market and ecologically based diversification directly affect relations of production.

In the case of accessibility, the predictions of Hypothesis 'C' are borne out by the findings. In other words, it can be said, on the basis of this study that in a country where market forces are strong, the accessibility of a region to market determines not so much the degree, as the kind, of commercialization. High accessibility in terms of time and cost which allows petty commodity producers to sell whatever agricultural or non-agricultural goods they may produce directly in the market without having to go through any trading intermediaries, will reduce opportunities for merchant capital and the result is likely to demonstrate more of a petty commodity mode

of production with mostly family labour based farms and therefore less wage labour, less share-cropping and less usury.

Similarly, with respect to ecologically based diversification, on the basis of the findings in these three villages, it can be concluded that the higher the level of diversification, the greater will be the degree of family labour use, market involvement and commercialization and the lower will be the level of share-cropping, wage labour, usury and perhaps differentiation.

On the other hand, Hypotheses 'A' and 'B' cannot be said to have been so clearly substantiated by the actual findings. Although the predictions hold in the case of Bajua, they are not borne out by the findings in the other two villages. Therefore, the results with regard to these two hypotheses, to my mind, are at best indeterminate.

As regards the second point of my analysis, that is to see how far the various modes of production indicated by the hypotheses, correspond to actual modes of production in the villages; this has been seen to hold for at least two of the three villages and with respect to two of the four sets of hypotheses. In the third and the fourth sets of hypotheses it was predicted that (a) the more accessible the market is from the village (ACC) and ecologically the more diversified it is (EBD), the greater will be family labour use (FL) and market involvement (MKT) which will demonstrate a petty commodity mode. This holds for the northern village Jamira. It was further hypothesized that (b) the less accessible (ACC) and the less ecologically diversified the village,

the more wage labour use, share-cropping and usury there would be and the village structure would be dominated by a feudal mode of production (FMP). This is seen to hold for Bidhya.

Thus, it can be said that high accessibility and/or high diversity demonstrates a petty commodity mode of production whereas low accessibility and/or low diversity demonstrates a feudal mode of production (Table 6.3.4).

Table 6.3.4. Ecology and Mode of Production

ACC	EBD	
	High	Low
High	PCM	?
Low	?	FMP

The other two sets of hypotheses linking the two ecological variables - land in efficiency units (LEU) and labour productivity (LRP) - and the dependent social variables and indicating a peasant mode, a capitalist mode or a feudal mode¹ do not seem to hold in the case of these villages at least. However, this is not to suggest that there is no relationship between land in efficiency units, labour productivity and production relations such as wage labour, share-cropping or market. Empirically many instances were observed in which such ecological factors have affected production relations, and this is summarized in the conclusion to this study. It can, in fact, also be seen from the figures drawing postulated relationship between the ecological variables and the social variables, that a one to one correspondence exists but because of the very complex nature of the

1. See pp. 325-327

interrelationships it is difficult to derive any unambiguous predictions concerning the effect of these two ecological variables on the social variables when taken in the total context of a given social formation unless of course the (ecological) differences between the villages are much more sharply defined.

CHAPTER 7

CONCLUSION

The principal hypothesis of this study is that ecology has an effect on the way in which rural class relations are structured and evolve. As is explained in the introduction to this study, the problem has been approached broadly in two stages. In the first stage the empirical findings in the selected villages are described and their relationship to ecology discussed. In the second stage, a theoretical formulation is offered with regard to some aspects of ecology and rural class relations. The results are both positive and negative.

In the first stage I have described how the ecology of the three villages has influenced some of the characteristics of these villages for example cropping pattern, demographic structure, land distribution, rent relations and local occupations such as fishing and coir making and seems to have influenced other developments like the labour market and the structure of the politics of power. These are, however, merely logical assumptions based on observation and participation and not conclusions. In other words, they have neither been reached by reasoning from general laws nor has their validity been tested.

I have described for example, how the proximity of the two southern villages to the sea causing high salinity has limited their cropping potential and made them monocrop areas producing only transplanted aman in the monsoon months when the local rivers and canals are influenced by the Padma river flow, local rainfall and runoff. It was also noted how in a shallowly flooded, tidal area, water pressure and over-sedimentation can reduce crop yields, how during the dry season, when salinity is

pronounced, artificial field bunds are necessary to protect crops and how this in turn affects the fishing rights in the enclosed area especially of the poorer sections of the people. Thus, one ecological constraint, salinity, reduces access to a different ecological advantage, fishing potential. This I have called ecologically based diversification. As a result of this salinity, the poorer sections of the population are unable to benefit from the fishing potential and thus to strengthen their position and the process of differentiation remains unabated.

Whereas in Bidhya salinity has off-set the potential benefits of ecological diversification, in Jamira, the northern village, a different ecological factor, accessibility to the market has strengthened the advantages of diversification. Coconut and coconut products especially coir, chewing nuts, and date-palm products such as molasses are sold directly in the market by the producers themselves without having to go through middlemen. This not only prevents surplus drain from the village, but also stabilizes the position of the poorer sections of the peasantry and checks the process of polarisation. Thus, in this instance, accessibility to the market and ecologically based diversification are mutually reinforcing. I have called this situation in Jamira 'blanket commercialisation' as opposed to the situation in the south where, due to poor accessibility to the market, the poorer peasants are dependent on intermediary traders for marketing their produce. This process of 'funnelled commercialisation' not only deprives the weaker peasants of much of their surplus labour making them more vulnerable in the various unequal relations such as wage labour, share-cropping

and usury they enter into and broadly, to the process of differentiation but also makes the village as a whole poorer in that the village is slowly drained of its surplus by traders who may be outsiders.

In terms of labour productivity it has been shown that the natural flooding and silting in Biddya, the village in the south, makes it almost twice as productive as the other villages. This is reflected in a lower labour use and therefore in lower production costs. This also affects the wage rates in that field work is less strenuous and therefore the wage rate is lower in Biddya compared to Bajua. However, the overall wage rate rises rapidly as the peak period approaches. Therefore it is partly determined by ecology, in that it is determined by the nature of agriculture, and partly by the laws of demand and supply. But then the labour supply itself is again largely determined by ecological factors. As we have seen, the peak period demand is met by the influx of immigrant labourers from the northern regions which is made possible by the difference between the northern and the southern regions, in the timing of peak periods at different phases of production such as transplanting, weeding and harvesting. I have argued that traditional monsoon rice technology is dependent mainly on timing, depth and distribution of rainfall which in turn determine such operations of cultivation as sowing, transplanting, weeding and finally harvesting.

This is also the reason why it is quite common to find small farmers who would normally hire out, hiring in labour at peak periods. This explains why it is almost impossible to identify pure peasant or pure petty commodity producing families in the rural areas. Thus,

it would seem that in a predominantly agrarian structure, the whole spectrum of labour use especially wage labour relation is influenced if not determined by ecological factors.

With regard to rent relations, it has been shown that, while the inaccessibility of plots is in itself, often reason enough to want to rent them out, the extent of absentee ownership - which in the case of the two southern villages is due to ecology - also determines the conditions of access to land. In other words, it determines to a large extent how much land is share-cropped, how much owner-cultivated, and how much cultivated by wage labour.

As regards politics and power structure in the three villages, I have argued that, of the possible sources of power at least two - (a) land-based power and (b) state power - are directly affected by ecology. The big farmers, through the instruments of either land renting or wage labour use and also through a separate function of landownership, i.e., money-lending relation, make the poorer classes especially the share-croppers and the wage labourers dependent on them for their livelihood and thereby wield political power. As for state power, to the extent that this power base helps the big farmers to control the local council and with the help of other organs of power such as the police, command the order of the State, their authority can be said to be a direct function of their access to land.

The point is, however, that although differentiation has increased over the years, the basis of the differentiated structure of the peasantry in the southern

villages is to be found in the history of land reclamation and settlement in the Sundarbans which was itself characterized by inequality. While the decision of the Government to reclaim land and encourage settlement was augmented by the interests of the empire, the schemes themselves and their terms and conditions were dictated to a large extent by the ecology of the Sundarbans. These schemes and the terms and conditions of reclamation pre-supposed differential access to land. To that extent the land-based power structure and therefore state-power may be explained ecologically.

Thus, empirically there is enough evidence to suggest that there is a clear correspondence between ecology and the way in which rural societies are structured. These relationships however, are not well defined and therefore it is difficult to come to any clear conclusions on the basis of these observations. They do tell us that ecological variables such as salinity, flooding, labour productivity, accessibility and ecological diversification affect such social variables as occupation, labour use, income, poverty and differentiation but they do not indicate a great deal about the precise nature of the relationship the various ecological variables may have with the social variables.

In order to clarify this, a set of four ecological variables were selected and the households in the villages were re-ordered along class lines according to the concept of relations of production. Based on the principal contradiction in the relations of production, the three villages were identified as capitalist, feudal, and peasant. On the basis of a priori reasoning, intuition and literature, I then formulated a series of hypotheses

which in turn formed the basis of predictions as to how the ecological variables would affect the various indicators of class relations such as wage labour, family labour, share-cropping, market, usury and differentiation. These predictions were then tested against the actual findings in the villages. Lastly, on the basis of these tests I have offered a framework identifying the possible linkages between some of the ecological variables and the class relation variables which I have called the social variables. This, in brief formed the outline of the theoretical framework of this study.

In the final analysis the two southern villages Bajua and Bidhya are identified as capitalist and feudal respectively and the northern village, Jamira as a petty commodity producing village. The dominant 'contradictions' in the three villages are seen as those between the capitalist farmers and their wage labourers in Bajua and between the landlords and their share-croppers in Bidhya. In Jamira, on the other hand, the two conflicting classes, the labourer and the non-labouring owners of the means of production, merge into one class when identified on the basis of self-exploitation and therefore there is no dominant 'contradiction' as such. This, however, is not to suggest that there is no 'contradiction' in Jamira. To the extent that there are conflicting classes such as landlords and share-croppers, wage labourers and capitalist farmers, contradictions exist.

The source of these contradictions is the unequal relations which the direct producers and the owners of the means of production enter into in the process of production.

By predicting the locus of these unequal relationships corresponding to the four ecological variables we have not only observed the complexity of such a relationship but also determined that the direction and the kind of relationship between an ecological variable and a given social variable seen in the total context of a social formation must depend on the magnitude of the relationship between the variables. In other words, it might be difficult to deduce any definite relationship between the class structure of a village and its ecology unless the ecological settings are sharply defined from village to village.

Two positive results, however, emerged from the theoretical framework as the hypotheses were tested. The first relates to accessibility to the market and the second, to ecologically based diversification. The predictions made on the basis of these two ecological variables as to the extent and kind of social relations are borne out by the findings in the three villages.

It is usually assumed or claimed in the literature that the greater the degree of market penetration, the greater the degree of differentiation among the peasantry (Lenin:1956; Shanin:1972).¹ This study suggests, however, that commercialisation does not necessarily mean greater differentiation and in fact it could well lead to the opposite. The kind and degree of differentiation depends on the type of accessibility leading to what I have called a funnelled or a blanket type of commercialisation.

1. Lenin, V.I.: The Development of Capitalism in Russia; especially chapters II, III and IV.

Shanin, T : The Awkward Class, Political Sociology of Peasantry in A Developing Society: Russia 1910-1925; especially chapters 5 and 7.

This study concludes that, in a country such as Bangladesh where market forces are strong, accessibility of a region to market determines not so much the degree as the kind of commercialisation. If accessibility is such in terms of time and cost, that it allows small producers to sell their home grown produce or commodities directly in the market without having to go through any trading intermediaries then this will restrict opportunities for merchant capital. This I have called 'blanket commercialisation'. Under this form, the accessibility confers income earning abilities on the poor and the landless by not only enabling them to sell their commodities but also to diversify their income-earning activities. In this situation the market in fact serves not to further polarisation but to reduce the degree of differentiation as the reverse cash flow comes not only to the rich farmers, but also to the poor peasants.

Thus, under blanket commercialisation we are likely to observe not market penetration followed by capitalist forms of production but a strengthening of simple commodity production in that it is likely to vitalise the whole small commodity sector. This will help to stabilize the household economies of the small peasantry. In so far as it enables more producers to maintain their independence, this will make them less vulnerable to exploitation both through wage labour and through share-cropping. It would in turn also tend to reduce usury.

As regards ecological diversification, we can say that if the ecology of a region is so diversified as to allow employment or income sources of some kind, especially to the poorer sections of the population, for most of the year, then this will not only benefit them directly

in terms of greater income, it will also improve their bargaining power in the course of selling their labour. Diversification into different activities and petty commodity production will substantially reduce their critical dependence on wage labour or share-cropping relations, for example, for the reproduction of their labour. In so far as this reduces the extent of these production relations, it will mean more family labour based farms in the village. Diversification will tend to protect the purity of a petty commodity mode of production in that it will tend to stabilize the incomes of the poorer peasantry and the process of differentiation will be delayed.

In a way therefore, the effects of accessibility to market and ecological diversification are similar. Thus, I have further argued that a region with high accessibility as well as being ecologically highly diversified will clearly demonstrate a petty commodity mode of production.

Conversely, if the accessibility of a region to the market is such that it only allows 'funnelled commercialisation', in that the small producers are dependent on a class of traders in order to market their produce and therefore the conditions exist for merchant capital to reap a profit, then the market will serve as an agent for further polarization. In a less accessible village where the richer peasants may entirely or at least to a large extent, give up agricultural production and become full-time traders, the polarization between the peasantry and the rest is likely to increase and the small peasants are likely to be doubly dependent; firstly as tenants and secondly, as sellers of small quantities of produce.

This is likely to demonstrate a feudal mode of production. Which, however, is not to suggest that there may not be significant wage labour use but that the social formation is dominated by share-cropping and usury relations.

Similarly, if the region is not sufficiently diversified as to allow the poorer peasants income generating employment for the major part of the year then this is also likely to demonstrate a feudal mode with a predominance of share-cropping relations and usury and a higher level of differentiation.

These are the positive findings of this study since they are seen to hold in the case of the three villages of this study. On the two remaining selected ecological variables, however, it was impossible to derive any unambiguous conclusion as to their effect on given social variables when seen in the total context of a social formation, although it is quite clear from the empirical data that broadly such relationships exist.

The findings are as important in the discipline of ecological studies as they are in the study of rural class relations. However, further research into the precise nature of relationships involving more ecological variables and social variables will contribute towards better understanding of both areas within the broader discipline of man-nature relationship.

APPENDIX I

Generalized Soil Classification

Bangladesh Soil Surveys Research Department have worked out a generalized soil classification termed as 'general soil types' which are given below :

Floodplain soils:

1. Non-calcareous alluvium
2. Calcareous alluvium
3. Acid sulphate soils
4. Peat soils
5. Grey floodplain soils
6. Grey Piedmont soils
7. Acid basin clays
8. Non-calcareous dark grey floodplain soils
9. Calcareous floodplain soils
10. Calcareous brown floodplain soils
11. Non-calcerous brown floodplain soils
12. Black terai soils

Hill Soils

13. Brown hill soils

Terrace Soils

14. Shallow red-brown soils
15. Deep red-brown soils
16. Brown mottled terrece soils
17. Grey terrace and valley soils

APPENDIX II

Cropping Pattern Based on Different Agro-Ecological Determinants in Various Parts of Bangladesh

Based on the different characters of determinants in different areas the following cropping pattern has evolved in Bangladesh. However, particular cropping sequences could be changed and are being changed in areas where the determinants have been altered through technology i.e. agricultural development work or soil management practices.

The major cropping patterns are :

1. Dryland crops throughout the year: sugarcane, banana etc.
2. Broadcast aus - early rabi crops (tobacco, potato, mustard, raddish).
3. Broadcast aus or jute - long term rabi crops (wheat, potatoes, water melon, chillies).
4. Broadcast aus or jute - short term rabi crops (mustard, legumes, millet, sesamum).
5. Broadcast aus or jute, followed by transplanted aman, followed by short term rabi crops
6. Broadcast aus or jute followed by transplanted aman followed by fallow.
7. Mixed broadcast aus and deepwater aman - rabi crops
8. Broadcast deepwater aman followed by rabi crops
9. Broadcast deepwater aman followed by fallow
10. Transplanted aman followed by fallow
11. Boro followed by fallow
12. Irrigated boro or aus (HYV) - transplanted aman
13. Irrigated boro or aus followed by fallow

APPENDIX III

THE MARXIST ANALYTICAL FRAMEWORK

In order to ensure the propagation of life man produces and this entails from the start a dual relationship : with nature and with other men. For Marx the dialectic of development started with nature and from man as initially an integrated part of nature. Human labour power and the resources of nature such as; soil fertility water power and day light which are used for production in conjunction with scientific and technical knowledge are identified in Marxist terms as the forces of production. In other words, this refers to the mode of appropriation of 'nature' that is, to the labour process in which a determinate raw material is transformed into a specific product. The elementary factors of the labour process are (1) work itself, (2) the subject of the work, and (3) the instruments (Capital I:178). Forces of production differ according to the manner in which the forms of cooperation and coordination of the labour of several individuals, the forms of the articulation of the means (land, inputs, machines) and the object of labour take place (Hindness and Hirst:1977:11).

The relations of production are those socially structured relationships between men into which they must enter as a result of their participation in the process of social production such as relationships between master and slave, serf and lord, or proletariat and bourgeois. They produce only by cooperating in a certain way and mutually exchanging their activities which gives rise to division of labour. But to speak of an individual doing only one kind of work is already to assume a society where man's activity is not his own. Thus

ownership of the means of production reflected in the relations of production form the basis of social division into classes with conflicting interests, such as slave-owners and slaves, landlords and serfs, or bourgeois and proletariat (Melotti:1977:3). Relations of production

define a specific mode of appropriation of surplus labour and the specific form of social distribution of the means of production corresponding to that mode of appropriation of surplus labour (Hindness and Hirst:1977:3)

Capitalist relations of production are a mode of appropriation of surplus labour in the form of surplus value, and the social distribution of the means of production where these are owned by the non-labourers (capitalists) where the labour power takes the form of a commodity which the class of labourers are forced to sell to the class of non-labourers (Ibid).¹

Surplus labour is a necessary element in all possible modes of production differing not in its existence but only in the mode in which it is appropriated. It may be appropriated collectively as in the primitive communist and advanced communist socialist modes of production, or by a class of non-labourers as in capitalism or feudalism. In the second case the mode of appropriation constitutes antagonistic relations of production and a social division of labour between the class of peasants and workers on the one hand and feudal lords and capitalists on the other.

The mode of appropriation of surplus labour governs the mode in which the social product is distributed among the agents of production (Ibid:10)².

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1. See Hindness and Hirst:1975:45-69 and 1977:63-75; Cutler, Hindness and Hussain:1977:135-153; Althusser:1977:174-181, 227-233 and 244-262.
 2. Also see Hindness and Hirst:1977:23-44 and Balibar: 1977:209-224.

The forces of production and relations of production as a whole, constitute the mode of production, for instance the Asiatic, the Classical, the Feudal, the Capitalist, and other modes of production. The concept of a particular mode of production is one of a determinate articulated combination of relations and forces of production.

This means that there can be no definition of the relations or of the forces of production independently of the mode of production which they are combined (Hindness and Hirst:1977:11)

Each mode of production has, with two exceptions (primitive society with no private property and socialist society), a characteristic form of exploitation - so called general slavery in the Asiatic mode, slavery in the Classical mode, serfdom in the Feudal mode and wage-labour in the Capitalist mode - based on specific forms of appropriation by a class of non-labourers of the labour of others. For instance, the appropriation of the labour of the village community via the tributary system and the collective corvee under the Asiatic mode of production; the appropriation of the slave's actual body and thus of his labour, under the Classical mode; the private appropriation of the serf's surplus product under the Feudal mode; and finally the private appropriation of surplus value under the Capitalist mode (see Melotti:1977:3-5).

The Marxist concept of social formation which corresponds to society as it is generally understood, has been left until last because to understand it involves the comprehension of the concepts analysed in the preceding paragraphs.

The Marxist concept of social formation is not that of a civil society.

The social formation is the site of a first 'contradiction' between the classes which Marx describes in terms of struggle, war and opposition, a 'contradiction' which can be 'now hidden, now open', and whose terms are 'in a word, oppressor and oppressed'. Marx calls it 'an antagonism', 'not in the sense of individual antagonism', i.e., not a struggle between men but an antagonistic structure; it is inside the economic base, typical of a determinate mode of production and its terms are called 'the level of productive forces' and 'the relations of production'. The antagonism between the productive forces and the relations of production has the effect of a revolutionary rupture, and it is this effect which determines the transition from one mode of production to another ('progressive epochs in the economic formation of society'), and thereby the transformation of the whole social formation (Althusser and Balibar:1977:203).

The usually accepted notion of social formation is that a concrete society never displays one mode of production in its pure form, it is usually a combination of different modes of production with one being the dominant mode of production. It is a structure, the mode of production being itself a structure, whose elements are different modes of production of which as Althusserians would put it, it is the most dominant mode. In this the subsidiary modes are rudimentary and their laws of motion are governed by the laws of motion of the dominant one. Some of these rudimentary modes may be survivors of earlier modes of production and others may be precursors of later modes of production. Basically this is what is meant by a social formation. This corresponds most closely to the bourgeoisie concept of society which is made up of individual men acting together in certain ways; here the elements are men. In the Marxist conception the elements are modes of production, not individuals. So it is an entirely different structure. It is in some ways, an entirely new way of grasping the same reality but in some respect it is an entirely different reality.

APPENDIX IV

STATISTICS

In Table 5.2.5 the difference between those marketing more or less paddy in terms of wage labour use is highly significant using standard chi-square test.

In Table 6.3.1 the ecological variables are ranked according to magnitude except where the difference in magnitude is insignificant.

For all tests;

Bajua is taken as x_1 , $n=135$

Biddya is taken as x_2 , $n=61$

Jamira is taken as x_3 , $n=158$

The results are as follows :

Average Farm Size

$$S.D.x_1 = 1.27$$

$$S.D.x_2 = 2.89$$

$$S.D.x_3 = 0.97$$

$$2 (\bar{x}_1 - \bar{x}_2) = 0.77$$

$$\bar{x}_1 - \bar{x}_2 = 0.06$$

$$2\sigma(\bar{x}_1 - \bar{x}_3) = 0.27$$

$$\bar{x}_1 - \bar{x}_3 = 0.82$$

$$2\sigma(\bar{x}_2 - \bar{x}_3) = 0.72$$

$$\bar{x}_2 - \bar{x}_3 = 0.76$$

Therefore the difference between the average farm sizes of Bajua and Biddya are not significant but between both these villages and Jamira they are significant at the 95% level of confidence.

Labour Productivity

$$S.D.x_1 = 0.17$$

$$S.D.x_2 = 0.34$$

$$S.D.x_3 = 0.31$$

$$2\sigma(\bar{x}_2 - \bar{x}_3) = 0.11$$

$$\bar{x}_2 - \bar{x}_3 = 0.39$$

$$2\sigma(\bar{x}_3 - \bar{x}_1) = 0.057$$

$$\bar{x}_3 - \bar{x}_1 = 0.06$$

$$2\sigma(\bar{x}_2 - \bar{x}_1) = 0.09$$

$$\bar{x}_2 - \bar{x}_1 = 0.45$$

Therefore the difference between mean values for labour productivity for all three villages are significant at the 95% level of confidence.

Land Productivity

$$S.D.x_1 = 16.73$$

$$S.D.x_2 = 13.62$$

$$S.D.x_3 = 22.12$$

$$2\sqrt{(\bar{x}_3 - \bar{x}_2)} = 4.96$$

$$\bar{x}_3 - \bar{x}_2 = 7.34$$

$$2\sqrt{(\bar{x}_2 - \bar{x}_1)} = 4.52$$

$$\bar{x}_2 - \bar{x}_1 = 4.76$$

$$2\sqrt{(\bar{x}_3 - \bar{x}_1)} = 4.55$$

$$\bar{x}_3 - \bar{x}_1 = 12.1$$

Therefore the difference between the mean values for land productivity for all three villages is significant at the 95% level of confidence.

Land in Efficiency Units

$$S.D.x_1 = 2.87$$

$$S.D.x_2 = 3.12$$

$$S.D.x_3 = 4.50$$

$$2\sqrt{(\bar{x}_2 - \bar{x}_3)} = 1.07$$

$$\bar{x}_2 - \bar{x}_3 = 0.01$$

$$2\sqrt{(\bar{x}_3 - \bar{x}_1)} = 0.87$$

$$\bar{x}_3 - \bar{x}_1 = 1.00$$

$$2\sqrt{(\bar{x}_2 - \bar{x}_1)} = 0.94$$

$$\bar{x}_2 - \bar{x}_1 = 1.01$$

Therefore the difference between mean values for land in efficiency units for Bidhya and Jamira is not significant, but between both these villages and Bajua the difference is significant.

In Table 6.2.3 the difference in magnitude of the social variables has been tested for statistical significant (except the Gini concentration ratio).

For all tests :

Bajua is taken as x_1

Biddya is taken as x_2

Jamira is taken as x_3

The results are as follows :

Market (MKT)

$$S.D.x_1 = 25.91$$

$$n_1 = 135$$

$$S.D.x_2 = 11.95$$

$$n_2 = 61$$

$$S.D.x_3 = 19.73$$

$$n_3 = 158$$

$$2\sigma(\bar{x}_3 - \bar{x}_2) = 4.38$$

$$\bar{x}_3 - \bar{x}_2 = 5.60$$

$$2\sigma(\bar{x}_3 - \bar{x}_1) = 5.46$$

$$\bar{x}_3 - \bar{x}_1 = 6.10$$

$$2\sigma(\bar{x}_2 - \bar{x}_1) = 5.46$$

$$\bar{x}_2 - \bar{x}_1 = 0.50$$

The difference between mean values for marketed produce as a percentage of gross produce for Bajua and Biddya is not significant but between both these villages and Jamira the difference is significant at the 95% level of confidence.

Share-Cropping (SHC)

$$S.D.x_1 = 13.90$$

$$n_1 = 87$$

$$S.D.x_2 = 7.52$$

$$n_2 = 34$$

$$S.D.x_3 = 3.61$$

$$n_3 = 50$$

$$2\sigma(\bar{x}_1 - \bar{x}_2) = 3.95$$

$$\bar{x}_1 - \bar{x}_2 = 5.5$$

$$2\sigma(\bar{x}_2 - \bar{x}_3) = 2.78$$

$$\bar{x}_2 - \bar{x}_3 = 2.80$$

$$2\sigma(\bar{x}_1 - \bar{x}_3) = 3.16$$

$$\bar{x}_1 - \bar{x}_3 = 8.3$$

The difference between mean values for net share of share-crop paid for all three villages is significant at the 95% level of confidence

Wage Labour (WL)

$$S.D.x_1 = 14.52$$

$$n_1 = 122$$

$$S.D.x_2 = 16.04$$

$$n_2 = 34$$

$$S.D.x_3 = 13.30$$

$$n_3 = 45$$

$$2\sigma(\bar{x}_2 - \bar{x}_3) = 6.77$$

$$\bar{x}_2 - \bar{x}_3 = 14.2$$

$$2\sigma(\bar{x}_1 - \bar{x}_3) = 4.76$$

$$\bar{x}_1 - \bar{x}_3 = 18.70$$

$$2\sigma(\bar{x}_1 - \bar{x}_2) = 6.09$$

$$\bar{x}_1 - \bar{x}_2 = 4.5$$

The difference between mean values for wage labour use as a percentage of total labour use for Bajua and Biddya is not significant but between both these villages and Jamira the difference is significant at the 95% level of confidence.

Family Labour (FL)

$$S.D.x_1 = 14.52$$

$$n_1 = 135$$

$$S.D.x_2 = 16.04$$

$$n_2 = 61$$

$$S.D.x_3 = 13.30$$

$$n_3 = 158$$

$$2\sigma(\bar{x}_3 - \bar{x}_2) = 4.62$$

$$\bar{x}_3 - \bar{x}_2 = 14.2$$

$$2\sigma(\bar{x}_2 - \bar{x}_1) = 4.81$$

$$\bar{x}_2 - \bar{x}_1 = 4.5$$

$$2\sigma(\bar{x}_3 - \bar{x}_1) = 3.27$$

$$\bar{x}_3 - \bar{x}_1 = 18.7$$

The difference between mean values for family labour use as a percentage of total labour use for Bajua and Biddya is not significant but between both these villages and Jamira the difference is significant at the 95% level of confidence.

Usury (USY)

$$\sigma \text{ difference between proportions} = .057$$

$$p_1 - p_2 = 14.4$$

$$\sigma \text{ difference between proportions} = .056$$

$$p_2 - p_3 = 4.4$$

$$\sigma \text{ difference between proportions} = .04$$

$$p_1 - p_3 = 18.8$$

The difference between the percentage of indebted households in each village is significant at the 95% level of confidence.

APPENDIX V

QUESTIONNAIRE (Translation)

Q. 1.01 Information on the Family

Name of respondent and other family members
Relationship of each of the other member to the head
of the family
Age
Sex
Level of education
Marital status
Main occupation
Religion

Q. 1.02 Information on those who are part of the family
but do not live in the village

Names
Marital status
If married, whether his/her family lives with him/her or
in the village
Year in which left the village
Place of Present Residence
Distance from the village
Reason for leaving village
Present occupation
Occupation when living in the village
Present monthly income
Property in the village (in acres)
Frequency of visits to the village
Whether living at the present place of residence alone
or with any relative.
If anyone helped him/her to find a job there
How much money is remitted to the village annually
How much money it taken from the village annually
How much crop is taken from the village annually.

Q. 1.03

How frequently does the correspondent or any other member of the family go to town/city.

Q. 1.04

For what reasons normally

Q. 1.05 Respondent and his family's property and assets

Names of the owners and each owner's property and assets

Land (in acres)

homestead

approximate value (in taka)

orchard

approximate value

fallow land

approximate value

cultivating land

approximate value

No. of ponds

approximate value

No. of cattle

approximate value

No. of ploughs

approximate value

No. of grain stores

approximate value

No. of fruit trees

approximate value

No. of any other valuable

approximate value

No. of rickshaws/vans owned

approximate value

No. of bicycles owned

approximate value

No. of shops owned

approximate value

No. of coir making units owned

approximate value

Radios, if any and value
watches/clocks : value
jewellery if any, value
Any other valuables : value
Total value of property and assets :

Q. 2.01 Account of Respondent's landed property

Have you (respondent) or any member of your family lost any land ? If so, how ?

Name of the owner

Amount of land lost

Homestead

cultivating

Name of the recipient

Amount of land lost by sale

approximate date

if sold to local resident

if sold to absentee owner

total price received

cause of sale

economic condition of the buyer

Amount of land lost through mortgage

year of mortgage

year the land was lost

amount of original loan

amount received at the time land was handed over to the debtor

Amount of land lost in the river

Amount of land lost through charity

Amount of land taken by force

Amount taken by the Government

Compensation paid by the Government

Amount lost in any other way

Q. 2.02 Account of cultivating land (owned)

Names of the owners

No. of plots

relationship of the owner to the head of the family
(respondent)

amount of land in each plot

distance of each plot from homestead

How owned

amount inherited

amount bought

amount received from the Government

amount taken by force

If purchased

amount purchased directly

year purchased

price paid

amount purchased directly

amount purchased by way of mortgage

seller's economic situation

Out of all cultivating land, how much is self-managed

how much is rented-out.

If rented-out (applicable to those who rent-out any land)
on what basis are the different plots cultivated

Share-cropping

No. of plots

distance of each plot from homestead

area of each plot

how long has each of these plots been share-cropped

time basis: crop season; yearly; two-yearly; for
indefinite period

Lease/Ekrat

Area of each plot

distance of plots from homestead

year in which leased-out
time basis : crop season; /yearly, /two yearly, for indefinite
period
advance received (in taka)
type of contract (written/verbal/other)

Mortgaged

Area of each plot
distance of plots from homestead
year in which mortgaged-out
loan received (in taka)
how much has been repaid (in taka)
the year by which the debt must be paid
type of contract (written/verbal/other)
any other arrangement

Q. 2.04

Land rented-in the year before and the basis of the rent

Share-cropping

No. of plots
distance of the plots from homestead
area of each plot
how long have you been renting-in
time basis; crop season, /yearly, /two-yearly, for indefinite
period
per cent of crop to be given to the landlord
amount of 'salami' paid, if any
amount of 'deposit' paid, if any
free labour supplied for the landlord
type of contract (written/Verbal/other)

Lease/Ekrat

No of plots
distance of the plots from homestead
area in each plot

how long have you been leasing-in
advance given in taka
type of contract (written/verbal/other)

Mortgage

No of plots
distance of the plots from homestead
area in each plot
year loan given
amount given
the year by which the loan must be repaid
type of contract (written/verbal/other)

Q. 2.05

Information on the Landlords whose land you cultivated last year.

Names of the landlords
Relationship with the respondent, if any
Residence of the landlord - local/absentee
Approximate land owned by the landlord
Area rented-in by the respondent
Basis on which rented-in (Sharecropping/lease/ekrat/mortgage/other)
How long have you been renting-in these plot(s)
Is the type of crop dictated by the landlord
Cash advance given by the landlord for cultivation, if any.
Any other help given by the landlord.
From share-cropper's point of view, who is preferred out of a local or absentee owner.

Q. 3.01 Production, Labour and Cost

Type of crops grown :
on self-managed land
total area under each crop
total production of each crop
on share-cropped in land
total area under each crop
total production of each crop

on land rented-in on any other basis

total area under each crop

total production

on rented-out land

total area under each crop

total production

Cultivation and Labour

cost of ploughing hired, if any

cost of mechanical ploughing hired, if any

No. of family labour used

No. of days used

No. of hired labour used

No. of days used

Cost of hired labour

Seed

total local seed used (in maunds)

total cost (in taka)

total HYV seed used

total cost

reason for not using HYV seed

Labour used for transplanting

No. of family labour

No. of days used

No. of hired

No. of days used

total cost

Fertilizer

quantity of local fertilizer (in maunds)

total cost

quantity of imported fertilizer (in maunds)

total cost

Irrigation

renting cost of pump, if used

fuel cost

renting cost of tubewell, if used

cost of conventional (indigenous) irrigation, if used

basis of irrigation : cooperative/individual

If no irrigation has been used, why not

cost of insecticides, if used

labour used for weeding

No. of family labour

No. of days used

No. of hired labour

No. of days used

total cost

Labour used for harvesting

No. of family labour

No. of days used

No. of hired labour

No. of days used

total cost

Labour used for threshing

No. of family labour

No. of days used

No. of hired labour

No. of days used

total cost

Of total wages paid, how much is paid in cash and how much in crop

Q. 4.01 Account of Family Labour

Names of working members

relationship of each member to respondent

No. of days worked at home or on own land

No. of days worked as wage-labourer

wages received (in taka)

No. of days worked as contract labour

wages received cash/crop annually
No. of days work spent on coir-making
profit made
No. of days spent fishing
profit made
No. of days spent on petty business
type of business
profit made
No. of days in salaried work
type of work
annual salary received
No. of days spent in other work
annual earnings
No. of days unemployed
if unemployed, reason
would you have worked had job been available

Q. 5.01 Account of Paddy

Paddy Paid (in maunds)

paddy loan paid
interest (in paddy) of paddy loan
paddy paid in wages
paddy paid in repayment of cash debt
paddy paid for any other purpose
total paddy paid

Paddy Received (in maunds)

from borrower
paddy interest on above
from doing wage labour
production
surplus left over from the year before
total paddy

Annual Surplus/deficit

If surplus, how much is loaned out
if surplus, how much is sold
if deficit, how do you meet this.

Q. 6.01 Market

Crops marketed

amount of crop marketed at different times of the year:
immediately after harvest/later in the year/immediately
before harvest

Sold to and rate

amount sold at the farm door to local traders
rate

amount sold in the market
rate

amount sold to the village money-lender
rate

amount sold to the Government procurement agents
rate

if not sold to the Government procurement agent, why not
if sold either in the market or to the Government agents,
how is the produce carried.

Q. 7.01 Income (for the preceding year)

Sources and Income

paddy sold

other crops sold

gur sold

chewing nuts sold

coconut/coconut husks/oil/other crops sold

coir/bamboo/cane and other products sold

vegetables sold

fish sold

poultry/pets/cattle sold

profit made from shop-keeping
profit made from other petty business
salary
income from wage labour
cash received from borrowers
loan taken
remittance, if any
any other source
total income

Expenditure

paddy deficit
shopping (food)
cigarette, tobacco etc.
clothes/shoes etc
household goods
transport
medical expenses
children's education
entertainment/ceremonial occasions
wage payments
other input costs
home repairs
cost of raw materials
litigation
debt paid
loan paid
wedding etc
purchase of cattle
others
total surplus/deficit

Q. 7.02

If deficit how is this made up

Q. 7.03

If surplus, where is this money kept home/post office/
bank/other

Q. 8.01

Have you or any member of your family sued anybody in
the past 5 years

If yes, how many times

reasons : land/cash/other

against whom : money lender/landlord/share-cropper/other

defendent's economic condition

result of the judgement

appriximate cost incurred in the litigation

Q. 8.02

Has anybody sued you or any member of your family in
the past 5 years.

If yes, how many times

Is plaintiff the ; moneylender/landlord/share-cropper/other

reasons : land/cash/other

plaintiff's economic eondition

result of the judgement

approximate cost incurred

Q. 9.01 Usury

Names of the borrowers

relationship with the respondent

borrowed from money-lenders

amount

year borrowed

year to be repaid

amount to be repaid

collateral if any.

interest rate : haat baar/week/month

borrowed from a business man

amount

year borrowed

year to be repaid

amount to be repaid

collateral, if any

interest rate : haat baar/week/month

Borrowed from a landowner

amount

year borrowed

amount to be repaid

collateral, if any

interest rate : haat baar/week/month

Borrowed from friends/relatives

amount

year borrowed

amount to be repaid

collateral, if any

interest rate : week/month/any other arrangement

Borrowed from Agricultural Bank

amount

year borrowed

amount to be repaid

collateral, if any

interest rate :

Borrowed from I.R.D.P./Agricultural co-operative

amount

year borrowed

amount to be repaid

collateral, if any

interest rate :

Borrowed from any other Bank

amount

year borrowed

amount to be repaid

collateral, if any

interest rate :

Reason for borrowing (against each loan)

Present position of the loan : paid/partly paid/unpaid

Q. 9.02

Money owed to the respondent or any member of his family by others.

Name of borrower

relationship with the respondent

sum loaned

year loaned

Terms of interest

in crop (maunds)

in cash (rate of interest)

year when the loan is expected to be repaid

why did the borrower borrow

borrower's economic condition

collateral

type of contract : written/verbal

any other terms or conditions

Q. 10.01

Is the respondent a member of any cooperative, agricultural society, pump group, I.R.D.P. or any other society or association.

Q. 10.02

If there is such an organisation and respondent is not a member, why not.

Q. 10.03

If respondent is a member, what sort of benefit does he derive.

APPENDIX V (continued)

Original Questionnaire (in Bengali)

১০০

স্বাস্থ্য সার্ভিস
বাংলাদেশ

(১৪)

১০/১০/১০
১০/১০/১০
১০/১০/১০

ক্র.সং.	নাম	পরিবারের প্রধানের সংস্পর্শে	বয়স	শিক্ষা/পেশা	বিশ্বাসযোগ্যতা	বিশ্বাসযোগ্যতা	বিশ্বাসযোগ্যতা	বিশ্বাসযোগ্যতা	বিশ্বাসযোগ্যতা
১	শ্রীমতী সায়মা কামাল	০১	৬১	১	০৫	৬	০১	১	১
২	শ্রীমতী কুমারী " "	০২	৬৫	১	০৫	২	০১	২	১
৩	শ্রীমতী " "	০৫	৪	২	০৫	৫	০৫	২	১
৪	শ্রীমতী " "	০৪	২২	২	৬	২	১৫	২	১
৫	শ্রীমতী সায়মা কামাল	২২	৬৪	২	৪০	১	১৫	১	১
৬	শ্রীমতী " "	০৭	১৬	১	০৫	৫	১৫	২	১
৭	শ্রীমতী সায়মা	০২	১৫	১	০৫	৫	১৫	২	১
৮	শ্রীমতী সায়মা কামাল	১২							

১০/১০/১০

ଓ: ୧୦୧ N.A.
 ପରିସାର ପରିଚିତି :
 ଏହି ପରିସାରେର ସମସ୍ତ ଭାଗ ଓ ଗ୍ରାମେ ନମ୍ବ : ଡା'ହନ

୧	୨	୩	୪	୫	୬	୭	୮	୯	୧୦	୧୧	୧୨	୧୩	୧୪	୧୫	୧୬	୧୭	୧୮	୧୯	୨୦	
ନାମ	ମିଳାନ୍ତିକି ହେ, କି ନା	କେ, କି-ମର ଚନ୍ଦ୍ରା																		

ଓ: ୧୦୪
 ଦାମ୍ଭାସି ବା ପରିସାରେର ସମସ୍ତ ଭାଗ ଓ ଗ୍ରାମେ ନମ୍ବ ୧
 ଓ: ୧୦୪
 ଦାମ୍ଭାସି ଗ୍ରାମ ?

প্রঃ ২'০৯ N.A.

চরিত্র পঢ়িয়ান :

আপনি/আপনারদের কি কোন কৃতি সাহস্যতা হয়েছে ? যদ্যে থাকবেল সিদ্ধান্ত তার এটাটা সিদ্ধান্ত দিন :
(জন্মের পরিবার প্রতিপাতের সিদ্ধান্তে এরূপে পেনেছে সিদ্ধান্ত করবে হবে)

১	২	৩	৪	৫	৬	৭	৮
নাম	পিতার নাম	পিতার নাম	পিতার নাম	পিতার নাম	পিতার নাম	পিতার নাম	পিতার নাম
জন্ম তারিখ							
জন্ম স্থান							
পিতার নাম							
পিতার নাম							
পিতার নাম							
পিতার নাম							
পিতার নাম							
পিতার নাম							
পিতার নাম							

3: 2.00 N.A

চাষের সময় প্রতিদিন :

অন্য কৃষকে, আশ্রয়স্থলে, মোট জমি, নিত্যকর্ম, মাগুনী, আবে, তার, বিয়রণ দিন।

১	২	৩	৪	৫
কাজের নাম	কাজের সময়	কাজের স্থান	কাজের কারণ	কাজের ফল
কাজের নাম	কাজের সময়	কাজের স্থান	কাজের কারণ	কাজের ফল
কাজের নাম	কাজের সময়	কাজের স্থান	কাজের কারণ	কাজের ফল
কাজের নাম	কাজের সময়	কাজের স্থান	কাজের কারণ	কাজের ফল
কাজের নাম	কাজের সময়	কাজের স্থান	কাজের কারণ	কাজের ফল
কাজের নাম	কাজের সময়	কাজের স্থান	কাজের কারণ	কাজের ফল
কাজের নাম	কাজের সময়	কাজের স্থান	কাজের কারণ	কাজের ফল
কাজের নাম	কাজের সময়	কাজের স্থান	কাজের কারণ	কাজের ফল
কাজের নাম	কাজের সময়	কাজের স্থান	কাজের কারণ	কাজের ফল
কাজের নাম	কাজের সময়	কাজের স্থান	কাজের কারণ	কাজের ফল
কাজের নাম	কাজের সময়	কাজের স্থান	কাজের কারণ	কাজের ফল

১৯ অম জ্যৈষ্ঠ ১৩৩৫ সন ১৩ অক্টোবর ১৯০৮ খ্রিঃ

৩২
৩৩

(১৯০)

১৯০৮ সন ১৩ অক্টোবর ১৯০৮ খ্রিঃ
 হাজির হইয়াছে :
 ১৯০৮ সন ১৩ অক্টোবর ১৯০৮ খ্রিঃ

ক্র.সং.	নাম	১	২	৩	৪	৫	৬	৭	৮	৯	১০	১১	১২	১৩	১৪	১৫	১৬	১৭	১৮	১৯	২০	২১	২২	২৩	২৪	২৫	
১	হাজিরা																										
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১৫	হাজিরা																										
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১৮	হাজিরা																										
১৯	হাজিরা																										
২০	হাজিরা																										
২১	হাজিরা																										
২২	হাজিরা																										
২৩	হাজিরা																										
২৪	হাজিরা																										
২৫	হাজিরা																										

১৯ অক্টোবর ১৯০৮ খ্রিঃ
 হাজিরা
 ১৯০৮ সন ১৩ অক্টোবর ১৯০৮ খ্রিঃ

श्री गणेशाय नमः

दिनांक

क्र.सं.	विवरण	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
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১: ৪'০৯

বহুতর ভবনের বিবরণ

বহুতর ভবনের ৪৩৭ নম্বরের ভবনের ভাড়াদারের তালিকাভুক্তি হতে বিবরণিত তথ্য সংগ্রহ করা হয়েছে এবং তথ্য হল।

ক্র.সং.	স্বত্বাধিকারীর নাম	১		২		৩		৪		৫		৬		৭		৮		মোট	টাকার	সংখ্যা	তারিখ
		স্বত্ব	ভাড়া																		
১	মিস্টার সান্টন	০২	৬০	-	-	-	-	০২	২০	-	-	-	-	-	-	-	-	০০২৪	০২	২০	২০২
২	মিস্টার সান্টন	০১	২০০	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	২০০

১: ৪'০৯
বহুতর ভবনের ভাড়াদারের বিবরণ ১ ০-৪
২-৪

১: ৪'০০
২ মাসের ভাড়াদারের বিবরণ ১ ০-২
২-২

পৃঃ ৭*০৯

ব্যয় - ব্যয় :

পত ১৩ বর্ষের ব্যয়াদেশের ব্যয় - বছরের ১৩টা মোটামুটি হিসাব দিন -

ব্যয়ের মূল

টাকার পরিমাণ

ধান বিক্রি (০*০৯ গ্রন্থ মেসুর)	২০০০.০০
ফসল বিক্রি (০*০৯ গ্রন্থ মেসুর)	-
পুত্র বিক্রি	-
মুগাঙ্গি বিক্রি	-
বাহিরেকেন/বাগি বেরেনর খোলা/ডেল/অন্যান্য কনসুম বিক্রি	-
মসুরী বিক্রি	-
মাস বিক্রি	-
হাঁস/মুরগী/রাগন/গরু বিক্রি	১০০.০০
মোটামুটিতে লাভ	-
টোটামুটি ব্যয়/ব্যয়	৪৫০০.০০
মাসুরী	-
বেল/বাগ/মড়ি/মাস ইত্যাদি দৈনিক ক্রয় বিক্রি	-
ফেল মসুরী (মেসুর)	-
বেউ অণু মোদে তর খাতন	৪৫০.০০
ব্যয়বি মোদে অণু দিয়ে খাতন	১০০০.০০
বেউ টোনা গারিয়ে খাতন	-
অন্যান্য	-

বেউ মোট -

৬-৬-৫০.০০ টাকা

বছরের ব্যয়

টাকার পরিমাণ

ধান/চাল মোদে	-
প্রতি মসুরের মাস/মসুরি মসুর (বছরে)	১১৫০.০০
মিগাঙ্গি বিক্রি	২০০.০০
মুগা/মাসা মসুর	৭০০.০০
মসুরি/মসুরি/মসুরি মসুর	২৫.০০
মসুরি	৫০০.০০
ক্রিয়াম/উৎপাদন	১০০.০০
মসুরি মসুরি মসুরি/মসুরি	২৫০.০০
মসুরি মসুরি মসুরি/মসুরি	-
মসুরি মসুরি মসুরি (১৩*০৯ গ্রন্থ মেসুর)	২০০.০০ ১১৫২.০০
মসুরি মসুরি মসুরি (১৩ গ্রন্থ মেসুর)	-
মসুরি মসুরি মসুরি মসুরি মসুরি, মসুরি/মসুরি/মসুরি মোদে	-
মসুরি মসুরি মসুরি মসুরি মসুরি/মসুরি/মসুরি মোদে	-
মসুরি মসুরি	২০০.০০ ২০০০.০০
মসুরি মসুরি (১৩*০৯)	১১২০.০০

→ মোট Output খাতন

ফসল

প্রঃ ১০.০১
আগনি কি কোনো সমাজ বা শ্রেণীতে এর অনুষ্ঠান ? ১

প্রঃ ১০.০২
না হলে কারণ কি ? ৫০

প্রঃ ১০.০৩
আগনি কি কোনো সমাজ, কৃষি সংস্থা, শাস্ত্র শূণ, পাই, পার, ডি, মি বা অন্য
কোনো সংস্থা বা সংস্থার সদস্য ? ১

প্রঃ ১০.০৪
এখানে যদি কেউ মৎস্য বা কৃষি সংস্থা থাকে এবং আগনি যদি তার সদস্য না হলে, তবে,
তার কারণ কি ? ৫০

প্রঃ ১০.০৫
আগনি হলে থাকলে এ থেকে কি ধরনের সুবিধা-
আগনি লেখা হত ? ১

প্রঃ ১০.০৬
আগনি কি এখন কোন কোন পরিষ্কার জায়গা বা
কোন কোন জায়গায় আছে ? চাইলে কোন ? ১

GLOSSARY

abad	jungle (Sundarbans) clearing
abwabs	illegal (rent or tax) exactions
aman	one of the two main rice-crops; usually transplanted
aratdar	trader who hoards for super profits
aus	one of the two main rice-crops; usually broadcast
baegar kishen	the practice of swopping family labour
bagan	orchard
baid	narrow, winding valley
Baisakh	approximately April 15 - May 15
bali-mati	sandy soils
banya	Hindu money lender/trader
bazaar	shopping centre
beel	flat, low-lying (paddy) fields or marshy land
bepari	dealers in paddy, rice or other crops
bete	a kind of long grass
bigħa	approximately 1/3 of an acre
bundh	traditional embankment
bodly	the practice of swopping family labour
boro	the winter rice crop
Chaitra	approximately March 15 - April 15
chala	plateaulike hillocks
char	sandy, flat island or beach
crore	ten million
daab	green coconut
dafadar	assistant to the Tehsildar
dawal	reapers
dhani	where the rice crop is grown

doash	loams
ekrat	a form of fixed renting in which use of land is enjoyed by the creditor until the loan is paid back.
faria	intermediary traders
Gajari	a kind of tree grown in the Sundarbans
ganti	lease of property directly under independent talukdars
gantidar	lessee of the above
Garan	kind of wood grown in the Sundarbans
goal-pata	thatching leaves
gur	date-palm molasses
haat	village market centre, sitting weekly or bi-weekly
haat-bar	the day(s) the haat sits
haoladari	lease of property with the power to sublet to cultivators though not to create under-tenures.
haolardar	lessee of the above
haor	major low-lying depressions
Jaistha	approximately May 15 - June 15
jungalhuri abadkari	reclamation tenures granted for jungle clearance
kabla dalil	written, official deed of transaction
kalboyishakhi	early summer storm
kalo-mati	muck soils
khal	canals or creeks

khas	Government owned land
khesari	low value lentils
lal-mati	red and yellow soils
mahajan	money-lender
marwari	non-Bengali, Indian, Hindu businessman
matial	clays
maund	approximately 82 pounds
Mukti Bahini	freedom fighters during Bangladesh war of Independence
munchi	cane worker; (but normally refers to shoe-menders)
narkel	coconut
nona-mati	alkaline or saline soils
paan/pan	betel-leaf
paisa	one hundredth of a taka
palimati	silt loams
Parisad	(elected) assembly
patitabadi	reclamation tenures granted for jungle clearance
patnidar	one form of lease under independent talukdars
rabi	winter crops
ryot	cultivating tenant with no power to sublet
ryotwari	land tenure system characterized by direct settlement between the Government and the cultivators without the intervention of the zamindars
salami	money paid in gratitude
seer	approximately 2 lbs.

seths	non-Bengali, Indian, Hindu businessmen
shaheb	gentleman or 'sir' (refers to white foreigner)
Sundarbans	mangrove swamp forests in the south of the district of Khulna
Sundari	a kind of wood grown in the Sundarbans
taka	Bangladesh currency; approximately 40 taka to the pound sterling
taluk	grants of land directly under zamindars
talukdar	lessee of taluks
tehsildar	collector of rents or taxes
thana	administrative area under a police station
til	lentil
tila	small hills
van	a kind of flat-board cycle/rickshaw
zamindar	intermediate collector of land revenue, commonly the landlord, during the British Period.

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