

**BANGLADESH AGRICULTURAL RESEARCH PROJECT PHASE-II**

**FARMING SYSTEMS AND THE EXTENDED COMMUNITY**

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**BANGLADESH AGRICULTURAL RESEARCH COUNCIL**  
**WINROCK INTERNATIONAL INSTITUTE FOR AGRICULTURAL DEVELOPMENT**  
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## MEASUREMENTS

Decimal: 100 decimals = 1 acre

Maund: 1 maund = 37.32 kilograms

Seer: 40 seer = 1 maund

Taka: Approximately 30.0 taka = 1 U.S. Dollar (1985)

## CHAPTER ONE

### SCOPE OF THE STUDY

In recent decades agricultural scientists have been hard at work to create better-yielding varieties of food and cash crops, population experts have been struggling to develop schemes for modifying high rates of demographic growth, and social scientists of many disciplines have been conducting field research and survey studies to understand agricultural and population problems in their appropriate social and economic contexts. Nevertheless, many problems in the rural regions of developing nations remain to be solved. One lesson is clear: for development programs to be most effective, the human dimension of the problems being tackled must be included in all phases of research and subsequent action schemes.

Thus, in the domain of agricultural development, earlier experiments with cropping systems have been replaced by farming systems approaches within which social and economic issues receive considerable attention. Although debates still rage among social and agricultural scientists regarding the most effective theoretical and practical frameworks for "Farming Systems" research (cf. CGIAR 1978; IADS 1980; Norman, Gilbert, and Winch 1979; DeWalt 1985; Rhoades 1985; and Jones and Wallace 1986), it is generally agreed that the most effective research will involve an ecological approach in which agriculture is viewed as a sub-system within the broader system of human-land

relations. Moreover, the approach requires an awareness that agriculture is an "open" system in "dynamic equilibrium."

A farming system (or farm system or whole-farm system) is not simply a collection of crops and animals to which one can apply this input or that that and expect immediate results. Rather, it is a complicated interwoven mesh of soils, plants, animals, implements, workers, other inputs, and environmental influences with the strands held and manipulated by a person called the farmer who, given his preference and aspirations, attempts to produce output from the inputs and technology available to him. It is the farmer's unique understanding of his immediate environment, both natural and socio-economic, that results in his farming system (TAC Farming Systems Report 1978).

We believe that the notion of the farmer's "immediate environment" should be understood broadly. Rural agriculturalists in developing countries do not live isolated in their villages. Rather, they operate in a "system" that includes homestead and fields in the context of relations with friends, neighbors, and kinspersons in the local community as well as in settlements spread over many hundreds of square miles and perhaps even into foreign countries. They are aware of market forces and participate as wisely as their resources permit in regional, national, and even international markets. Finally, they are exposed to diverse development programs brought to their farms by representatives of government institutes, international agencies, and private-sector organizations.

In this context, the analysis of agriculture in Bangladesh presented in this report extends the focus of "Farming Systems" approaches to encompass not just the farmer (i.e., usually the male household head) but also the relevant life experiences of all members of farming families. This brings a broader spatial framework as well as a longer time perspective to research on agriculture.

Thus, the present study is not concerned with farming systems narrowly defined, but deals with what we call farming systems and the "extended community." This community is extended both in time and space, not only through the farmer's life but beyond --to encompass generations before and after -- as well as across the geographical areas within which the farmer and members of his family live. We shall hope to demonstrate that the temporal and spatial dimensions of farming systems are best understood in this "extended" context. Farmers' decisions about working the land depend on such characteristics as household composition, inheritance, and migration -- none of which are usually part of farming systems approaches to agricultural development. For example, a farmer's decision to plant a specific IRRI variety rice in the early Kharif season may appear to an agricultural extension agent as a matter of an individual's knowledge and resources, but much more may be involved. The family's social obligations, such as those involving arrangements for a daughter's wedding, can influence whether they would choose to spend limited resources at that specific moment.

#### AGRICULTURE AND FARM HOUSEHOLDS

In a developing country like Bangladesh, agriculture depends

on the availability of human labor more than on high technology. Thus, millions of farmers and their families represent the basis for the success or failure of national agricultural development programs. They work the land to feed their families and to get some cash for other needs.

Just as a careful analysis of agricultural fields shows seasonal and yearly cycles in crops planted, tended, and harvested, so too with farming families. The labor resources represented by a farmer and his family depend on the composition of the household at a given moment. Children in school, sons working in the city, daughters married and living in another village -- all represent lost labor to the farmer working his fields. If the depletion of the familial labor pool is too great, or if the family members are unable to work in agricultural activities, then the farmer must hire in laborers at additional cost. On the other hand, absent family members do not represent as big a burden as do those living at home.

This leads to a consideration of the "developmental cycle of the domestic group" as a principal focus of study, although most agricultural researchers have tended to treat the family as a relatively static social unit. One effective way to deal with the temporal dimension of farming families is to carry out longitudinal research among a specific population. Unfortunately, this is expensive and requires a long-term commitment of resources and personnel beyond what is normally available in agricultural research programs. An alternative approach -- which we adopted in the study reported on here -- involves a cross-sectional survey of sample populations. Such

a survey must be designed so that the farming family's past, present, and future can be analyzed.

#### FARM HOUSEHOLDS: MIGRATION, INHERITANCE, AND LAND USE

In the present study, a particular emphasis has been placed on the problem of migration. Since migration involves the movement of people in space and in time, it provides the investigator interested in agricultural issues with a convenient and sensitive mechanism for examining the transformations of rural households. Furthermore, analysis of domestic development cycles in the context of migration brings into play the problem of inheritance and land use for the present and the future generation of farmers in Bangladesh. The farming system in rural communities consists not only of people working the land in the present, but reflects the consequences of actions in the past and limits options for the future.

Migration has its most direct connections to agriculture in two domains: first, and most important, is the continuing transformation of the village populations in Bangladesh because of the patterns of exogamy (out-marriage) by which women tend to leave their natal communities and move to the villages in which their husbands reside; second, migrants may influence agricultural activities in the farming households through the so-called "demonstration effect" that other options exist beyond the communities of origin. For example, some young people attend school in the countryside and then continue their higher educational training elsewhere. They represent a "cost" to their families of origin during their training period, but offer the prospect of higher earnings at a later time. Some of these

earnings may be returned home as remittances to assist the family members to survive in the rural setting. Or, the migrants --through their occasional visits home --may carry new ideas with them that might influence the farmers' uses of technology, seed, fertilizers, or other agricultural products.

Inheritance is closely tied to migration since women who marry out and others who migrate for educational or work purposes must deal with their share (actual or potential) of the inheritance from their parents. Because land fragmentation can result from observance of Islamic and governmental laws, agriculturalists are faced with serious decisions regarding disposition of their property among sons and daughters. In this context, the problem of land "management" becomes important in order to keep family plots productive. Some families may become landless while others gain lands from generation to generation in village situations where no new lands are available for cultivation.

Thus, land use in the rural sector can be seen as resulting from certain combinations of agricultural practices, economic constraints and opportunities, and social customs such as inheritance and migration. Who has how much land, where it is located, and how it is used depends on familial history and resources as well as the quality of seed, availability of fertilizers and irrigation, and the general environmental conditions such as drought or flood.

#### CATEGORIES OF FARM HOUSEHOLDS

Rural communities are not homogeneous places. Aside from the

distinction between farmers and non-farmers (such as storekeepers, tradespeople, etc.), one can differentiate the farming population based on a variety of measures. For instance, one might examine the total amount of land owned by a farmer, the amount of land under cultivation (including leased, rented, sharecropped, and mortgaged lands), the total number of plots owned, the total yields from all crops, the total income from farming, or even the net profits realized from agricultural activities. Whatever measure or combination of measures is used, the reality of agricultural life in rural Bangladesh reveals different "classes" of farmers whose economic levels range from very poor to reasonably prosperous (cf. Howes 1985:45-51).

In the present study we have followed common practice (Wallace 1984) by dividing agriculturalists into "classes" according to the total amount of agricultural land owned. For our purposes we divide farming households into three classes: Marginal, Small, and Large. Households with little or no agricultural land (i.e., between 0 and 49 decimals or 0.0 and 0.49 acres) are labeled "Marginal"; those with more substantial holdings (i.e., between 50 and 249 decimals or 0.5 and 2.49 acres) are called "Small," and those with even greater holdings (i.e., over 250 decimals or 2.5 acres) are called "Large."

## A GENERAL FRAMEWORK FOR ANALYSIS OF FARMING SYSTEMS

So far we have discussed several of the central components of a general framework for the analysis of farming systems in rural Bangladesh. To complete the picture, it is necessary to introduce more complexity. The major components of a more comprehensive framework include are listed in Figure 1. The major components are: Population, Households, Migration, Land Acquisition, Land Ownership and Tenancy, Agriculture, and Farm Class.

In general, we suggest that the Population component is the point with which to begin analysis. Data on individuals can then be merged into a higher level of analysis associated with the Households component. The Migration component influences the composition of the population and households. The Land Acquisition component deals with who obtains how much land through what mechanisms. The Land Ownership and Tenancy component involves the control over land by individuals as manifested throughout their families and households. The Agriculture component combines the environmental, technological, and human labor inputs with production outputs. Finally, the Farm Class component divides the agriculturalists into three categories --Marginal, Small, and Large -- on the basis of the total amount of agricultural land owned.

FIGURE 1. COMPONENTS OF A GENERAL FRAMEWORK  
FOR ANALYSIS OF FARMING SYSTEMS IN BANGLADESH

POPULATION

-- Demographic Characteristics

-- sex

-- age

-- Social Characteristics

-- marital status

-- familial dependency status

-- Educational Characteristics

-- schooling level

-- Occupational Characteristics

-- type of employment

-- number of jobs

-- income

HOUSEHOLDS

-- Membership Characteristics

-- age composition

-- sex composition

-- Residential Characteristics

-- nuclear families

-- extended families

-- Economic Characteristics

-- labor force participation

-- agricultural activities

FIGURE 1. COMPONENTS OF A GENERAL FRAMEWORK  
FOR ANALYSIS OF FARMING SYSTEMS IN BANGLADESH

(continued)

-- Developmental Cycle Characteristics

- relationship to head
- generational features
- marriage patterns

MIGRATION

-- Characteristics of Migrants

- age
- sex
- marital status

-- Origins of Migrants

- rural to rural
- urban to rural

-- Destinations of Migrants

- rural to rural
- rural to urban

-- Patterns of Movements

- direct
- multiple stages

-- Social Characteristics

- origin households
- destination households

-- Educational Characteristics

-- Occupational Characteristics

FIGURE 1. COMPONENTS OF A GENERAL FRAMEWORK  
FOR ANALYSIS OF FARMING SYSTEMS IN BANGLADESH

(continued)

LAND ACQUISITION

- Inheritance
  - males
  - females
  - locational issues
- Purchase
  - costs
  - mortgages
- Dowry
  - marriage costs
  - hypogamy and hypergamy

LAND OWNERSHIP AND TENANCY

- Ownership
  - total amount land
  - total agricultural land
  - total non-agricultural land
- Tenancy
  - leasing in and out
  - sharecropping in and out
  - renting in and out
  - mortgaging in and out
- Land Fragmentation
  - total plots owned
  - total plots farmed

FIGURE 1. COMPONENTS OF A GENERAL FRAMEWORK  
FOR ANALYSIS OF FARMING SYSTEMS IN BANGLADESH

(continued)

AGRICULTURE

-- Environmental Conditions

--- soils

--- water

--- Technological Inputs

-- irrigation

-- seeds

-- fertilizers

--- pesticides

-- Labor Investment

--- family labor

-- hired labor

-- animal power

-- Production

-- subsistence crops

-- cash crops

-- multiple cropping

--- homestead gardens

-- livestock

FARM CLASS

-- Marginal Agriculturalists

-- Small Agriculturalists

--- Large Agriculturalists

## THE RESEARCH PROJECT

The present project developed from a concern for a better understanding of the relationship between rural population movements and agricultural development. By building on previous research in two villages -- Choto Kalampur and Jalsha Boro Hissa -- in Dhamrai Upazilla under Dhaka District where previous farming systems and social anthropological research has been carried out, it was the aim of the current project to study in depth certain factors which had not received sufficient attention. In particular, we wished to examine the problems of land fragmentation and land inheritance as these were related to migration. An initial operating hypothesis of the research project focused on the linkage of marriage patterns (specifically, village exogamy and patrilocal residence) and the variability of land holdings between men and women. The approach to this problem has involved a detailed consideration of individual and household variables within a cross-sectional survey of sample households in the two villages. It is anticipated that the results of the research project, when combined with earlier research on the "Role of Rural Women in Technology Adoption" in these same communities, will contribute to a better understanding of the diversity and complexity of life chances for the inhabitants of the Bangladesh countryside.

Specific research objectives of the study were:

a) assessment of different types of migrants in rural Bangladesh, in terms of the patterns of rural-rural, rural-urban, and urban-rural movements;

b) assessment of social and demographic

characteristics of these migrants, with special attention to age, sex, marital status, education, occupation, etc.;

c) assessment of the spatial and temporal patterns of population movement involving the sample village households;

d) assessment of the impact of migration on the agricultural systems of the sample communities, with special attention to problems of land ownership, land use, inheritance, and fragmentation;

e) assessment of the relationship of the life cycle of migrants and the development of domestic groups involved in agricultural activities, with special attention to the prospects that migrant remittances influence changes in standard of living for rural households.

## RESEARCH PROCEDURES

### SELECTION OF FIELD RESEARCH SITES

At the outset, it was intended to examine agricultural communities directly rather than through analysis of secondary data. Although a review of the comparative literature on the social and economic dimensions of agriculture in Bangladesh was conducted (cf. Wallace and Kemper 1984; BARC 1985), it revealed that relatively few field-based studies had been conducted on relevant topics. Moreover, given resource and personnel limitations, it was decided to do intensive field research in a limited number of communities rather than to attempt to conduct a large-scale survey of numerous communities throughout the country.

In this context, it was decided to conduct field investigations in two communities -- Choto Kalampur and Jalsha Boro Hissa -- where previous research had been done by BARC and other organizations. In particular, the decision to choose these two communities was a consequence of the availability of a substantial amount of background information collected by the earlier project teams (see EJRI 1981, 1982, 1983, Wallace 1984, 1985, Wallace, Ahsan, Ahsan and Hussain in press). The selection of Kalampur as a research site by the earlier investigators was determined by three points: (1) the presence there of a EJRI cropping systems site; (2) its presumed representativeness of the region within Dhamrai Upazilla of Dhaka District; and (3) its convenient location along the Aricha highway about 90 minutes drive northwest of Dhaka (see Wallace 1984 for details). The selection of Jalsha as a second research site was related to its location in a more isolated rural area near Kalampur. It was expected to be less subject to the immediate impact of agricultural development programs and other urban-based influences and would likely reveal more traditional forms of social, economic, and agricultural organization than would Kalampur. Taken together, the two research communities would provide information about a broader range of rural agriculturalists than would research in a single village.

In these earlier field studies, 34 households were selected from each village. This represented approximately a 10% sample from Choto Kalampur and a 16% sample from Jalsha Borohissa. The sample from each village was selected on a random basis according to the relative proportions of households in four farm class

categories: Landless, Small, Medium, and Large. In the present study these four categories were reduced to three "farm class" categories by combining the categories of Landless and Marginal into the single class Marginal. The sample characteristics are given in Table 1.

Because of the confusion in the literature over classifying Bangladeshi farmers as tenant farmers and sharecroppers (see Jannuzi and Peach 1977) and because of the methodological problems such categories create, tenants and sharecroppers as classes of farmers were not used in these earlier studies. For example, a landless sharecropper is never a large land owner but a large land owner may be a sharecropper.

TABLE 1. SAMPLE HOUSEHOLDS BY FARM CLASS

FARM CLASS	KALAMPUR		JALSHA	
	ACTUAL HOUSEHOLDS	SAMPLE HOUSEHOLDS	ACTUAL HOUSEHOLDS	SAMPLE HOUSEHOLDS
Large	112	8	22	3
Small	179	13	110	18
Marginal	60	13	71	13
Total	351	34	203	34

These 68 households served as the primary basis for data about household composition, land use, and migration in Kalampur and Jalsha. But additional information was also collected from other villagers about these and related issues through standard ethnographic fieldwork methods (cf. Pelto and Pelto 1979).

## FIELD RESEARCH

Field research began in the summer 1984 and continued through 1985. It was determined that a series of survey questionnaires would be used to acquire the data needed for analysis of the relationships among the principal components of the framework described above. The research team designed, pre-tested, and administered three major survey questionnaires as part of this project: (a) Household Survey; (b) Migration Survey; and (c) Land Use Survey.

The Household Survey was administered to the household heads of 34 sample households in Kalampur and 34 sample households in Jalsha. These households were selected because they were the same as those used in the earlier project on "The Role of Rural Women in Technology Adoption." It was important to have an established rapport with the respondents because of the length and complexity of the questionnaire.

The Migration Survey was designed to be administered to both in-migrants and out-migrants from the sample households in the two communities. The potential migrant interviewees were initially identified from the persons listed on the population census section of the Household Survey. In Kalampur, a total of 46 in-migrants and 49 out-migrants were located and interviewed; in Jalsha, 44 in-migrants and 37 out-migrants were done. In all cases, the number of migrants interviewed was a reasonable proportion of those known to exist. For the Kalampur and Jalsha in-migrants, all were found and interviewed. The more difficult situation existed for finding and interviewing the out-migrants. For Kalampur, 49 of 55 migrants were done and for Jalsha 37 of 45

were done. In most cases, the migrants were living in villages in the same upazilla -- Dhamrai -- in which both Kalampur and Jalsha are located. However, in some instances, the researchers had to pursue the out-migrants to more distant villages and towns.

The Land Use Survey was administered to all 34 sample households in both Kalampur and in Jalsha. It was intended to provide plot-wise and season-wise data on crops, seeds, fertilizers, pesticides, and other aspects of agricultural inputs and production for the sample households.

#### DATA ANALYSIS

The results obtained from the three survey questionnaires were prepared for analysis through use of codebooks, data coding forms, and computer word processing programs. Thus, the responses to the items on the questionnaires were converted by a time-consuming process into a format compatible with the Statistical Package for the Social Sciences (SPSS/PC+), which was used to create statistical tables for the numerous variables analyzed (Norusis 1986). In addition, considerable manual tabulation and calculation of data was done. The bulk of the data analysis was done in the period from mid-1985 to mid-1986, beginning with the transferring of the item responses to the codesheets and the subsequent entry of the codesheets into the computer (IBM PC). During the Spring and Summer 1986, the actual statistical analysis was done on SPSS/PC+.

It is important to note here that, although all questionnaire item responses were transferred to the codesheets, not all were entered into the computer for SPSS/PC+ analysis because there

were too many non-responses or missing data to make the statistical procedures worthwhile. On the other hand, numerous new variables were created on the computer through transformation or aggregation of the original responses. For example, the variable for "Farm Class" was created by calculating the amount of agricultural land (which involved subtracting the non-agricultural land from the agricultural land) for each of the sample households in the two research communities. Subsequently, it was possible to add the "Farm Class" variable to the data sets derived from the Land Use Survey and the Migration Survey.

#### PRESENTATION OF RESEARCH RESULTS

In the following chapters we present the principal findings of the research conducted in Kalampur and Jalsha. In Chapter 2 we give some background information on the characteristics of the two communities, with emphasis on their environmental, demographic, and economic conditions. In Chapter 3 the agricultural practices of farmers in Kalampur and Jalsha will be described in light of tenancy arrangements and the cost of farming. In Chapter 4 we examine the characteristics of the sample households in Kalampur and Jalsha in detail, with special focus on their developmental cycle characteristics. In Chapter 5 the land acquisition and land inheritance strategies among the sample households in Kalampur and Jalsha will be analyzed. In Chapter 6 the characteristics of the migrants to and from Kalampur and Jalsha will be discussed in terms of the farm class categories of their households of destination or origin, respectively. Finally, in Chapter 7, we summarize the relationships among the principal components of the general

framework for analysis of farming systems in rural Bangladesh in the light of the research results from Kalampur and Jalsha.

CHAPTER TWO  
CHOTO KALAMPUR AND JALSHA BOROHISSA  
THE LAND AND THE PEOPLE

In this chapter, we describe the villages of Choto Kalampur and Jalsha Borohissa (cf. Wallace 1984, Wallace, Ahsan, Ahsan, and Hussain in press, BJRI 1981, 1982, 1983). To understand the relationships between the land and the people, we shall examine the general environmental, historical-economic, and demographic contexts for the rural agriculturalists in these two communities. To conclude the chapter, we shall discuss the general characteristics of land ownership in Kalampur and Jalsha.

ENVIRONMENT

The unique environmental setting of Bangladesh --- located in the delta region of the great Ganges, Brahmaputra, and Meghna river systems -- is a major limitation on human exploitation of the land. Most of the country is less than fifteen meters above sea level and is subject to flooding and silting during the peak of the monsoon floods. Another consequence of the annual flooding and silting is the shifting of river beds, the erosion of their banks, and the destruction of villagers' fields. Of the two communities studied, Kalampur has so far suffered more severely from flooding because of its location next to the river.

Bangladesh has a tropical monsoon climate, characterized by two distinct seasons, a cool season and a longer warm season (Islam et al. 1981, Rashid 1977). In the region of Kalampur and Jalsha, the mean January temperature is 60 F and the mean July temperature is 82 F. Mean temperature, however, does not reflect the range and variation in the regional microclimate. During the winter months, the temperature in Kalampur and Jalsha may drop as low as 49 F. A woman dressed in a sari or a man in his lungi can "feel" very cold during this time of the year. During the summer months, the temperature can reach 100 F, making work in the fields and around the house very fatiguing.

The monsoon climate, generally fertile soils, and the activities of the human population influence the type of vegetation that grows in Bangladesh. In Kalampur and Jalsha, situated about six meters above sea level, almost all the green vegetation exists because of human activity. Except for some grasses and a few shrubs and small trees, all the vegetation growing in the area is useful to the human population. Land is simply too valuable for agricultural purposes to allow a significant amount of unusable vegetation to flourish. For all practical purposes, the flora dimension of the environment in Kalampur and Jalsha is "human" made. This human intervention in the landscape has led the geographer Rashid (1977:129) to say of Bangladesh: "the rows of graceful palms, the deep green masses of mango trees, the light green splashes of the clumps of bananas and the feathery bamboo, all arranged neatly around the huts and water tanks, makes the countryside look like a garden."

The soils of Kalampur and Jalsha are in what is generally referred to as the Brahmaputra tract. Grey in color, without developed profiles, light loam to clay loam in character, the soils are well suited for growing traditional rice and jute crops. They are not deficient in nutrients for traditional, local variety crops (Alim 1981), but to grow successfully the newer high yielding crops, it is necessary for farmers to add nutrients to the soil. Often, because of economic and political forces beyond the control of local agriculturalists, the cost of the appropriate fertilizers is prohibitively high.

The amount and timing of the yearly rainfall is critical to the well being of the farmer and his family. If there is a drought during the dry season and the sparse rains do not come, the farmer can lose his whole crop. If the monsoon is early and heavy, there is too much water and the rice crop may be destroyed. If the monsoon is heavy and lasts into October, another rice crop and the jute crop may be destroyed.

In general, the rainfall, temperature, and soils of the region of Kalampur and Jalsha provide the basis for nearly all farm households to produce enough food to maintain at least a subsistence level of living. Unfortunately, rainfall, temperature, and soils are only three of the variables affecting agriculture. Land distribution, irrigation, technology, social organization, political factors, and even religion also influence the success or failure of local farming.

## HISTORICAL--ECONOMIC DEVELOPMENT

The region now called Bangladesh has been subject to colonial exploitation by nation-states whose decision-making centers have been far removed from the local scene. The delta region was formally incorporated into the Moghul empire in 1576. For the following two centuries, the regional economy was dominated by traditional rice cultivation, although the agricultural system was becoming more diversified and the local silk and cotton industry were the basis of a growing export trade. By the late 1700s, the British East India Company had gained effective control over the region, and formal British governmental control followed in 1857.

During this period, the traditional balanced agrarian economy was transformed into a production system for raw materials dedicated to serving the needs of British industry and colonial economic policies. Local textile manufacturing suffered in competition with machine-made goods imported from England. Cash crops such as indigo and safflower -- and later, jute and tea -- were emphasized at the expense of traditional food crops. Thus, the region became firmly tied to the world system of production, consumption, and distribution.

The situation remained relatively unchanged until the partition of India and the creation of East Pakistan in 1947 when the British retired from active colonial control of the region. The old colonial regime was transferred from London (and Delhi) to a new political system in Karachi. The anticipated post-colonial economic boom did not occur in the region called East Pakistan. Agriculture did not prosper in the 1950s even

though the population was beginning to expand dramatically. From being a net agricultural exporter, the region became a food importer by the late 1960s. Much of the economic surplus generated by the farmers of East Pakistan was transferred through national administrative policies to benefit industrial development in West Pakistan. The inequities in conditions between the two Pakistans grew worse during the late 1960s; the War of Liberation was the result.

In 1971 the new nation of Bangladesh was born in the wake of a conflict that had taken perhaps 500,000 lives, forced millions from their homes and villages, and destroyed much of the infrastructure for regional economic development in city and countryside. The legacy of centuries of colonial exploitation -- under the Moghuls, the British, and then West Pakistanis -- resulted in little that could serve as the basis of rapid economic development to meet the new nation's serious needs. As Arthur and McNicoll have said, "Bangladesh today retains essentially the same economic base that had been established by the 1850s: cultivation of rice, jute, and a few other crops, and export of agricultural goods, mainly raw jute and manufactured jute products. Even though total output is larger, so too is population, with the result that the important qualitative indexes -- crop yields, labor productivity, and real incomes -- have shown slight improvement or even have worsened over the years" (1978:26).

Unfortunately, we know relatively little of the economic history of the communities of Kalampur and Jalsha. It appears that the general picture given above also applies to their

inhabitants. Their populations have been expanding in recent decades while production has been unable to keep pace. The subsistence economy is now linked permanently to the regional, national, and international markets -- with the result that the villagers can do little more to control their fate in the late 1980s than they could in earlier times.

#### THE COMMUNITY SETTING

Kalampur and Jalsha are located approximately 35 and 42 miles respectively west-northwest of Dhaka, the national capital. Kalampur is easily accessible to Dhaka via the Aricha Highway but is sufficiently distant to be outside its immediate sphere of influence. Many of the residents of Kalampur, especially women, children and old people, have never been to Dhaka. Jalsha is less accessible to Dhaka because it is situated seven miles west from Kalampur along a narrow road which was frequently impassible by vehicle during the rainy season, until it was paved in early 1986.

Administratively, Kalampur and Jalsha are situated in Dhaka District, Dhaka Sadar North Subdivision, Dhamrai Upazilla, and Sutipara Union. There were approximately 15,895 people living in 2,526 households in Sutipara Union in 1974 (BBS 1974). Kalampur is bordered on the north by Depashy and Bhalum, on the east by Kashipur and Dautia, on the west by Bordatia and Sutipar, and on the south by Sreerampur, Nannar, Shidhulia, and Badhagaoil. Jalsha is bounded on the north by Kushtipur, Kaulipara and Durgapur, on the east by Bongkherkola, Durgapur, and Boro Amorpur, and on the west by Arunnalia and Gaborpara. Both

Kalampur and Jalsha villages are divided into two more or less equal sections. Kalampur is divided by the Aricha Highway into a north and south section and Jalsha is divided by the Kapalipara canal.

Kalampur is the economic and social center of the villages in the immediate region. There is a dirt and brick road, a little over a mile long, linking the bazaar with the Aricha Highway. There is a steady flow of people and rickshaws along this road daily. The primary school and high school for the area is located near the Kalampur bazaar. There are two mosques and two madrasah (religious training centers) in Kalampur. Also, there are government offices, a post office, and several government self-help programs in Kalampur. Electricity has reached parts of Kalampur, and in sections of the village irrigation facilities are well developed.

Jalsha has few of the modern facilities characterizing Choto Kalampur. The nearest market for the people of Jalsha is located about three miles along the road to Kalampur. If the villagers of Jalsha want to shop during haat (market) day, they must walk or ride a rickshaw to more distant towns, including Kalampur. There is only one school in Jalsha and it is for primary grades only. Electricity has not reached most of Jalsha and irrigation facilities are less well developed than in Kalampur. Although Jalsha has always been more isolated (the paving of the road from Kalampur cuts the travel time to the main highway to less than 20 minutes by car from the previous one hour or more), the villagers of Jalsha do not perceive themselves to be less sophisticated than the residents of Kalampur.

## POPULATION

According to a 1973 census, there were approximately 1800 individuals living in 351 households in Kalampur and about 1500 individuals in 203 households in Jalsha. It appears that the populations of both communities have continued to grow, but no complete enumeration has been carried out in the past decade.

Our sample survey of 34 households in each community suggests that the typical household in Kalampur contains 6.3 persons while that in Jalsha has 5.5. These figures seem reasonable in light of the 1973 census survey. Detailed data on population composition of the two villages at the level of household and farm class are given in Chapter 4.

The Household Survey data includes 215 persons for Kalampur and 186 for Jalsha. The average age for the two sample populations was almost identical -- 22.6 years old for the former and 22.9 for the latter. Of those surveyed in Kalampur, 117 (54.4%) are reported to be unmarried, 90 (41.9%) married, 7 (3.3%) widowed, and 1 (0.5%) divorced. The parallel figures for Jalsha are 93 (50.0%) unmarried, 84 (45.2%) married, and 9 (4.8%) widowed (and none divorced). Again, these data suggest that similar demographic processes are at work in both communities.

At this point it is worthwhile to mention that the population of Kalampur and Jalsha cannot be understood only in terms of the local community settings. The traditional pattern of patrilocal residence and village exogamy results in a steady movement of both villages' young females to other places in the region. Moreover, this rural-to-rural population movement is supplemented

by a certain flow of men and women to other destinations in the region and beyond for purposes of education, work, marriage, and even inheritance of property.

Thus, it is necessary to consider Kalampur and Jalsha as two focal points of a population distribution in the region rather than simply as two places on the map. Although the stereotype held by urban dwellers of their village counterparts is that agriculturalists are tied permanently to the land, it appears that perhaps half of the people in Kalampur and Jalsha have lived or will live some years outside of these villages.

On the basis of responses to the Household Survey, we find that only 163 (75.8%) of our Kalampur sample population was born there; for Jalsha the figure is 140 (75.3%). Indeed, the people surveyed in Kalampur and Jalsha represent more than 30 different villages within the Dhamrai Upazilla, as well as several located in nearby Upazillas. If we assume that the proportion of people surveyed who were born elsewhere -- in nearly all cases women who come or go because of marriage arrangements -- approximates the numbers who will in turn depart Kalampur and Jalsha, then about half of each population would reside outside the two sample communities during their lifetimes.

#### EDUCATION

Although we have no information about the overall educational levels of all persons in Kalampur and Jalsha, our Household Survey does shed some light on the situation. We find that the range of education is from illiterate to university graduate in Kalampur and from illiterate to Higher Secondary Certificate

Passed in Jalsha, with all the different levels of primary and high school in between. If we exclude children below age ten from our analysis, then the pattern of literacy and education suggests that men have received more education than women and that people in the large farm class households are more likely to have some formal schooling than are people in the Small and Marginal farm class households. Certainly, most of the functionally literate individuals are likely to be found in Large farm class households. Moreover, it is clear from an analysis of the educational characteristics of out-migrants that the Large farm class households are most likely to be the source of the few college-educated individuals from Kalampur and Jalsha.

While 74.0% of all adults in the Kalampur sample population were classified as illiterate, 21.3% had some formal schooling up through Primary (Level 8), and 4.7% had gone to high school or beyond. Analysis of the data according to farm class reveals that persons who belong to Large farm class households are underrepresented in the illiterate category, while those from Small farm class households are overrepresented in this category and those from Marginal farm class households are represented in about the expected proportion.

For Jalsha, 65.8% of the adult sample is reported to be illiterate, 25.8% had some formal schooling up through Primary (Level 8), and 8.3% had gone to High School or beyond. Here also the members of Large farm class households are underrepresented in the illiterate category. However, Small farm class individuals have about the expected proportion of illiterate, while Marginal farm class individuals are slightly

overrepresented in this category. In sum, there is not a linear relationship in the sample populations between level of education and farm class categories.

#### ECONOMIC ACTIVITIES

The primary occupation of 70% of the heads of household in Kalampur and 76% of the heads of household in Jalsha involves agriculture, i.e., they regularly farm land that they own, rent, and/or sharecrop. But many people work aside from household heads. Thus, we need to examine the overall profile of occupations for the sample population to reveal the total pattern of economic activities.

The largest single categories listed as primary occupations in Kalampur are housewife/household work/domestic (27.3%) and agricultural work (17.6%), followed by rickshaw driver/cart puller (4.1%), laborer (2.0%), professional (2.0%), trades (1.5%), and business (0.5%). Aside from these occupational specialties, 11.3% of the sample population was listed as student while 33.5% was reported to be not working (this last group includes primarily very small children). Only 15 persons were said to have a secondary occupation, and of these six were in agriculture, two were laborers, three were professionals, and four were in business.

In Jalsha, the leading primary occupations are also housewife/household work/domestic (26.9%) and agricultural work (19.9%), followed by trades (3.6%), laborer (1.8%), professional (1.2%), shopkeeper (0.6%), and rickshaw driver (0.6%). Students represented 10.5% of the sample population, and 35.1% were

unemployed at the time of the survey. In Jalsha, more people reported having a secondary occupation than was the case for Kalampur. Three were in agriculture, one cared for animals, three were laborers, two were sawyers, one worked in government, and nine were involved in businesses.

In general, it appears that Kalampur shows the expected greater economic diversity than Jalsha. About one-third of the sample population is not working or unemployed, although this figure includes small children and should probably be adjusted downward to nearer to 15% actual adult unemployment.

#### THE BAZAAR

As mentioned above, one measure of the different levels of economic development in the two communities is the presence or absence of local market facilities. Drawing on data gathered by Wallace during 1983, we offer a sketch of the market-related economic activities in Kalampur and Jalsha.

The village of Kalampur has a daily market, and in addition, a weekly haat every Thursday, which serves as the economic and social center for the nearby villages in the area.

There are fifty-six different types of shops, stalls, sheds, offices and activity centers in the Kalampur bazaar. These shops are itemized in Figure 2.1.

It is not necessary to list all the items for sale in the shops to gain an appreciation for the type of permanent market that exists in Kalampur. A listing of some of the items in some of the shops will suffice.

There are fourteen grocery shops in the Kalampur bazaar, the largest of which sell the following goods: onions, pulses, peppers, salt, spices, different varieties of rice, mustard and coconut oil, soybeans, eggs, sugar cane syrup, sugar, soft drinks, kerosene, crackers, cookies, soap, light bulbs, wire, drinking glasses, lamp chimneys, mirrors, tooth paste, pencils, batteries, ink, decorative paper, thread, shoe laces, shaving brushes, electric wire, rope, baby bottles, cigarettes, condensed milk, baby food, plates, candy, nail polish, perfume, flour, combs, chalk, envelopes, rose water, tea, mosquito coils, buttons, matches, potatoes, flashlights, pens, playing cards and razor blades. The stores, however, have only a very small stock of these items.

Figure 2.1  
Shops and Activity Centers in Kalampur Market

1. Grocery Store (14)
2. Goldsmith Repair Shop (4)
3. Radio Repair Shop (2)
4. Barbershop (3)
5. Cycle Repair Shop (3)
6. Fertilizer Shop (5)
7. Drug Store (6)
8. BJRI Office (1)
9. Sweet Shop (3)
10. Stationery Shop (2)
11. Tailoring Shop (4)
12. Book Store (2)
13. Rural Electrification (1)
14. Food Stall (4)
15. Cloth Store 2
16. Watch Repair Shop (1)
17. Homeopathic Med. Of. (2)
18. Bakery (1)
19. Rice Mill (8)
20. Cow Breeding Corner (1)
21. House (1)
22. Dist. Gov. Of. (1)
23. Closed Boy's Club (1)
24. Tea Stall (2)
25. Rickshaw Corner (2)
26. Rickshaw Garage (1)
27. Document Paralegals (21)
28. Warehouse (2)
29. Laundry (1)
30. Crockery Store (1)
31. Tin Shop (2)
32. Timber Shop (3)
33. Mosque (1)
34. Milk Selling Shop
35. Kerosene Shop (1)
36. Blacksmith (1)
37. Post Office (1)
38. Wholesale Dealer (1)
39. Market Shed (3)
40. Homeo-Aleo Med. Of. (1)
41. Kerosene Shop (1)
42. Haat day shed (8)
43. Basket Shop (1)
44. Ice Cream Shop (1)
45. Handloom Shop (1)
46. Oil/Flour Mill (1)
47. Firewood Shop (1)
48. Furniture Store (1)
49. Closed Cinema (1)
50. High School (1)
51. Madrasah (1)
52. Melon Market (1)
53. Wood Post Shop (1)
54. Bank (1)
55. Tobacco Office (1)
56. Primary School

One of the stationery shops sells the following items: pens, money bags, flashlights, razor blades, writing paper, playing cards, cigarettes, matches, buttons, batteries, soda drinks, cookies, soap, water glasses, tooth paste, baby powder, condensed milk, baby food, shaving brushes, candy, ink, nail polish, thread, decorative paper, combs, chalk, envelopes, and shoe brushes.

Gold cannot be purchased in the market but it is possible to get jewelry repaired. The jewelry repair shops specialize in repairing gold nose and ear rings as well as silver nose and ear rings, chains, bangles, and bracelets.

Various types of patent medicine, especially those recommended for respiratory and diarrhea problems, can be purchased in the local drug stores.

The local book stores sell text books for the primary and high school curricula, novels, exercise books, religious books, some foreign magazines, pens, and calendars.

The post office, in addition to handling the mail, sells envelopes, paper, revenue stamps, and money orders.

At a daily market during May 1983, vendors without permanent shops were selling the following items: several varieties of rice, wheat flour, lentils, onions, garlic, spices, peppers, chilies, potatoes, salt, mustard oil, betel leaf, betel nut, tobacco, eggplant, bitter gourd, fish, mango, lemon, watermelon, sweet potatoes, sugar cane syrup, bananas, and cucumbers.

Haat day in the Choto Kalampur market takes on many of the characteristics of a rural carnival. There is a steady flow of people and rickshaws moving up and down the roads leading to the

market. It is difficult to move about the bazaar on haat day. Men, women and children -- many more men and children than women -- are busy buying and selling goods. People laugh, joke, gossip, eat, and generally enjoy interacting with their friends and neighbors. The haggling and bartering over prices between buyer and seller reaches a fever pitch. Male transvestites, in their colorful clothing and makeup, are busy promoting cigarettes and other items. Cows and goats are paraded about the market. Haat day is as much a social occasion as an economic occasion.

On a haat day in May 1983, eighty-one vendors were identified. Some of the items they had for sale were ducks, chickens, eggs, ice cream, lemons, yoghurt, sweets, pottery, watermelons, bananas, used clothing, new clothing, rice, milk, fish nets, brass work, seeds, flour, drugs, ear rings, umbrellas, books, flashlights, salt, coconuts, tobacco, thread, betel nut and betel leaves, onions, beef, mutton, underwear, pigeons, paddy, cows, goats, baskets, fertilizers, and brooms.

The people of Jalsha, although they occasionally travel to the bazaar in Kalampur, generally go to market at Maishashi, a village located about three miles east along the road to Kalampur, or to a new market at Kausalipara, located about two miles west of Jalsha.

Although the bazaar at Maishashi is small, many of the same items are for sale that are found in the larger markets such as Choto Kalampur. The market, however, is much less "urban" in orientation and houses fewer government, developmental self-help programs, and educational facilities. The offices and shops in Maishashi are listed in Figure 2.2.

Kaulipara is a daily market and has two haat markets a week, on every Wednesday and Sunday. There are, however, about one hundred shops and stalls under construction -- which is likely to attract more Jalsha villagers in future years away from the Maishashi marketplace.

Figure 2.2  
Maishashi daily market

1. Stationary Shop (11)	11. Family Planning Of. (1)
2. Medical Office (4)	12. Charity Dispen. Of. (1)
3. Fertilizer Shop (2)	13. Gov. Godown (1)
4. Barber Shop (4)	14. Gov. Ration Of. (1)
5. Tailor Shop (5)	15. Fruit Stand (1)
6. Restaurant (4)	16. Blacksmith (1)
7. Rice/Flour Mill (3)	17. Jewelry Shop (1)
8. Bicycle Repair (3)	18. Mosque (1)
9. Other offices (3)	19. Hindu Temple (1)
10. Post Office (1)	20. Market Shed/Stalls (17)

#### LAND OWNERSHIP

One of the most striking characteristics of the landscape of Kalampur and Jalsha, and generally throughout Bangladesh, is how fragmented it has become over the years. Based on data obtained through the Household Survey, a typical farm household in Kalampur owns a total of 162 decimals of land spread among nearly nine plots in different parts of the village (and even beyond), with a largest plot of about 32 decimals and a smallest plot of about nine decimals. For the typical farm household, 145 decimals is devoted to agricultural purposes and the remaining 17 decimals to the homestead and other non-agricultural activities.

In Jalsha the typical farm household owns about 122 decimals of land spread among six plots, with the largest having about 33 decimals and the smallest seven. The typical Jalsha farm household devotes 110 decimals to agricultural purposes and the remaining twelve to the homestead and other purposes.

These averages, however, are misleading as a guide to understanding farming systems in the villages of Bangladesh. There is considerable heterogeneity among farming households with regard to total land owned, total plots owned, size of largest plot, size of smallest plot, amount of agricultural land, and even amount of non-agricultural land. For this reason, we pursue the analysis in terms of the three farm class categories.

On average, Marginal farm class households in Kalampur own 24.7 decimals of land, Small farm class households 170.8 decimals, and Large farm class households 370.4 decimals. Marginal farm class households have an average of 2.2 plots, with a range from one to ten plots, Small farm class households 8.4 plots, with a range from 5 to 17 plots, and Large farm class households 18.5 plots of land, with a range from 9 to 36 plots. The smallest single plot in Kalampur contains just a single decimal of land, while the largest is 98 decimals.

In Jalsha, Marginal farm class households own an average of 23 decimals of land, Small farm class households 141 decimals, and Large farm class households 437 decimals. Marginal farm class households have an average of 2.2 plots, with a range from one to four plots, Small farm class households 7.4 plots, with a range from two to fourteen, and Large farm class households 13 plots, with a range from eleven to fifteen. The smallest single

plot in Jalsha has just a single decimal of land, while the largest is 100 decimals.

Of equal importance, the plots of land owned by individual households in Kalampur and Jalsha are seldom contiguous. Rather, they are scattered throughout the countryside. Some of the land owned and farmed by the residents of these two villages is even located in different villages. One plot of a household's land may be two minutes walking from the homestead, while another is one hour and ten minutes from the house. On average, it takes a farmer ten minutes to walk to one of his plots. Thus, if a farmer has six plots, two of which are three minutes from the house, two of which are seven minutes from the house, and two of which are one hour from the house, the latter two plots are potential time and energy liabilities. The situation may be even worse for the large farm class households.

Another important feature of the land that must be considered by the farm household when planning the agricultural activities for the year is the relative elevation of the plots. Most of the land in Kalampur is "high", meaning that it seldom floods as a result of heavy rainstorms or the monsoon. Part of the land is "medium high", meaning that it will occasionally flood to thirty-five inches. In Jalsha, there is almost as much "medium high" land as "high" land so there is a greater opportunity for flooding in this village than in Kalampur. In both villages, there are some plots that are "medium low", often flooding to a depth of seventy inches. Because the household land is scattered around the community, there may be some plots that never flood and some plots that flood yearly. Plot susceptibility to

flooding is just one more environmental problem which farmers must deal with when making a cropping decision.

Without irrigation, drainage control, and protection from flooding, the farmer is limited to one or two crops a year (Hossain et al. 1982). With irrigation, the farmer may be able to get two or three crops a year. In Kalampur, about 58% of the households in the sample have access to water from a deep tube well. Most of the other households in the sample have access to either lowlift or shallow tube well water. In Jalsha, all of the sample households theoretically have access to water generated by a deep tube well, but access to irrigation does not necessarily mean that farmers are always able to use the water (see Wallace 1984:36-40). There are many technical, economic, and social factors that condition whether a household can use available irrigation facilities.

Partially because of land fragmentation and partially because of unequal distribution of wealth in Kalampur and Jalsha, land is frequently sharecropped, leased-in, leased-out or mortgaged.

A landless person or a Small farmer will often work another's land on a sharecropping basis known as barga. This is theoretically of mutual benefit to both parties since each receives 50% of the yield at harvest. The sharecropper provides all labor and capital inputs and the land owner provides the land. This type of arrangement is common throughout the world and usually the relationship is between a relatively large land owner and a landless person. But, in Kalampur and Jalsha, there are examples of Large farmers sharecropping on the land of another Large land owner, especially if the sharecropper's own

land is not irrigated, and therefore gives lower yields for the labor invested.

Leasing-in and leasing-out land are both common practices in Kalampur and Jalsha. If a household needs more land, the farmer may lease-in from another household for a specified yearly amount in cash or kind. A man may lease-out land when he needs more money or lacks the labor or capital resources to farm the land. Mortgaging land -- usually called bondhak -- follows the process in which the owner of the land allows another person to farm the land indefinitely for a fee which must be eventually repaid, usually with interest. There is some evidence to suggest that occasionally, a wealthy person may give a poor farmer more value for his land than it is actually worth. The net outcome of this transaction is that the poor farmer, who has mortgaged his land and its use, will never have enough cash to repay the rich farmer. Consequently, the rich farmer uses the poor farmer's land indefinitely.

Since agriculturalists from all farm classes may use land which they do not own -- through arrangements of sharecropping, leasing, renting, or mortgaging -- it is also important to consider the relationship between amount of agricultural land owned and the tenancy of land. In the Household Survey data were obtained on four "types" of agriculturalists: Owner, Owner cum Tenants, Landless Tenant, and Landless. Not surprisingly, this form of stratification of the sample households correlates well with that based on total amount of agricultural land owned alone -- the basis of our three-part farm class stratification scheme. In Kalampur 23 households are reported to be Owners, six are

Owner cum tenant, and five are Landless. In Jalsha 18 are Owners, nine are Owner cum tenant, three are Landless tenants, and four are Landless. A cross-tabulation of this "farmer type" scheme with the "farm class" stratification system is given in Table 2.1.

The comparison suggests that our farm class system is an effective way of examining economic stratification in both communities. As Arthur and McNicoll have argued, "Only ownership of land, or usage rights in it, provide a long-run sureness of access to the local social product. Not surprisingly, then, wealth and social standing in rural Bangladesh are measured in terms of landholding" (1978:35).

TABLE 2.1 "FARMER TYPE" BY FARM CLASS -- KALAMPUR AND JALSHA

KALAMPUR: FARM CLASS CATEGORIES

FARMER TYPE	MARGINAL		SMALL		LARGE		TOTAL	
	No.	%	No.	%	No.	%	No.	%
OWNER	8	61.5	9	69.2	6	75.0	23	67.6
OWNER CUM TENANT	0	0.0	4	66.7	2	25.0	6	17.6
LANDLESS TENANT	0	0.0	0	0.0	0	0.0	0	0.0
LANDLESS	5	38.5	0	0.0	0	0.0	5	14.7
TOTAL	13	100.0	13	100.0	8	100.0	34	100.0
%	38.3		38.3		23.4		100.0	

Chi-Square = 12.02508, with 4 degrees of freedom; Significance = .0172

JALSHA: FARM CLASS CATEGORIES

FARMER TYPE	MARGINAL		SMALL		LARGE		TOTAL	
	No.	%	No.	%	No.	%	No.	%
OWNER	3	23.1	12	66.7	3	100.0	18	52.9
OWNER CUM TENANT	3	23.1	6	33.3	0	0.0	9	26.5
LANDLESS TENANT	3	23.1	0	0.0	0	0.0	3	8.8
LANDLESS	4	30.8	0	0.0	0	0.0	4	11.8
TOTAL	13	100.0	18	100.0	3	100.0	34	100.0
%	38.3		52.9		8.8		100.0	

Chi-Square = 16.56410, with 6 degrees of freedom; Significance = .0110

## CHAPTER THREE

### AGRICULTURE

This chapter is devoted to an examination of agricultural practices in the villages of Choto Kalampur and Jalsha Borohissa. In the previous chapter we discussed the environmental conditions for agriculture. Here we turn our attention to the production dimension of agriculture; namely, the kinds of crops planted, tended, and harvested; the seasonal cycle of cropping; and the types of tenancy arrangements; and the costs of farming in the sample communities.

Although other dimensions of agriculture (e.g., technological inputs such as irrigation, seeds, fertilizers, and pesticides; homestead gardens; livestock; and certain forms of labor investments, such as hired labor and animal power) in the sample communities must be reserved for later discussion, the data derived from the Household Survey and the Land Use Survey still offer some important results regarding the farming systems in Kalampur and Jalsha.

#### AGRICULTURE: SEASONS AND MAJOR CROPS

Villagers in the region of Kalampur and Jalsha recognize two major seasons in the annual agricultural cycle: Rabi (winter) and Kharif (summer), with the latter further divided into Early

Kharif and Late Kharif. These seasons actually overlap in practice, depending on environmental circumstances and farming decisions such as when to plant or harvest crops. The Rabi season may run from as early as mid-October to as late as June, the Early Kharif from mid-March to mid-September, and the Late Kharif from mid-March to December, although the length of a specific season and the degree of overlap for specific plots depends on the crops involved.

The major Rabi season crops in Kalampur and Jalsha are Boro paddy (High Yield Variety), Boro paddy (local variety), mustard, pulses, potato, and wheat. Principal Early Kharif crops are Aus paddy (local variety), some IRRI paddy, and jute. The major crops of Late Kharif are mixed Aus and Broadcast Aman paddy (local variety) and Transplant Aman paddy (local variety). The major crops and seasons are summarized in Table 3.1.

Farmers and their families in Kalampur and Jalsha are busy throughout the year preparing the land and planting, harvesting, processing, and storing their various crops. Ideally, the family harvests three major crops a year. The family may harvest three crops a year, but unfortunately, the crops are usually not grown on the same plot of land. Instead, some plots may be triple-cropped, others double cropped, and still others single cropped. Some of the land may lay fallow for part of the year. Thus, even though a typical farmer in Kalampur owns 162 decimals of land spread among nine plots, it is unlikely that all of this land will be planted and harvested during each season of the annual agricultural cycle.

Analysis of data from the Land Use Survey of all plots farmed by the sample households in Kalampur and in Jalsha shows that the most common farming strategy is double-cropping --i.e., to let a particular plot lay fallow during one of the seasons and use it during the other two. The proportion of plots in the sample households farmed in this manner is nearly the same in both communities: 58% in Kalampur and 63% in Jalsha. The next most frequent strategy is to attempt to get three crops per year from a plot. This is the practice for 27% of all plots in Kalampur and 30% in Jalsha. The least popular strategy among the farmers in our sample populations was to use a plot only a year. Approximately 14% of the plots in Kalampur and 7% of those in Jalsha are single-cropped. Thus, it appears that farmers in both villages follow similar cropping patterns during the agricultural calendar.

(At this time, we have not analyzed the relationship between plot size and cropping pattern. So, we cannot state whether farmers try to keep their larger plots in production year round or whether some other strategy of utilization and fallowing is preferred. Moreover, it may be that the cropping patterns differ according to farm class category. Marginal, Small, and Large farmers face differ constraints and opportunities in making decisions about which plots to plant each season and which crop to place in each plot. We anticipate that additional data analysis will reveal some of these patterns.)

TABLE 3.1 MAJOR CROPS IN KALAMPUR AND JASLHA

CROPS	SOWING/TRANSPLANTING	HARVEST
Boro (LV)	Mid-January	Mid-June
Boro (HYV)	Mid-January	Mid-June
Mustard	Mid-November	Mid-February
Potato	Mid-November	March
Wheat	Mid-December	Mid-April
IRRI	Mid-February	Early May
Jute	Early March	Mid-August
Aus	Mid-March	Late July
Mixed Aus. B. Aman	March	• Early October
T. Aman	Mid-August	Mid-December

The Land Use Survey does not provide comprehensive information regarding the numbers and sizes of plots devoted to all crops for all seasons. However, there are good data available for the Aus season, equivalent in local terminology to the Early Kharif. In Kalampur the three most important crops -- as measured by the number of plots, regardless of size -- are IRRI (37%), Jute (34%), and Aus (19%). Among the remaining plots, we find four covered by bamboo bushes, four in mixed use between two main crops, two devoted to seed beds, two in sugarcane, one each in Aman and eggplant, one dedicated to a garden, and two laying fallow.

In Jalsha the three main crops are the same -- IRRI (33%), Aus (30%), and Jute (28%). It is likely that the slightly higher proportion of Jute grown in Kalampur is due to the presence of the BJRI research station and cropping site there. The other crops in Jalsha are similar to those in Kalampur: six mixed plots divided between two of the major crops, three in eggplant, one in Aman, one in bamboo bushes, one in seed bed, and ten laying fallow.

For purposes of illustration, we examine in more detail the characteristics of IRRI paddy, the major crop of the Early Kharif or Aus season.

#### CHOTO KALAMPUR

In Kalampur during the Aus season, Large farm class households devoted an average of 4.7 plots totaling an average 1.01 acres of land to IRRI and received for their labors an average yield of nineteen maund per acre. The largest yield by a single Large farm class household was 23.3 maunds per acre and

the smallest yield was 2.4 maunds per acre. Eighty-seven percent of the Large farm class households in Kalampur grew IRRI during this season.

For the Small farm class households growing IRRI paddy during the Aus season (78% of the sample), their average yield was 20 maund per acre. These households devoted an average of 3.3 plots and .58 acres to IRRI. The largest yield was 47.6 maund per acre and the lowest yield was 5.1 maund per acre.

Only two of the Marginal farm class households in Kalampur grew IRRI paddy. The households gave to IRRI an average of .22 acres and received a high average yield of 41.8 maund per acre.

Although it is hard to define the "typical" farm activities of a household, it is worthwhile to describe those of a few in Kalampur as illustrative of farming during the Aus season.

Mr. Houssein is the head of a Large farm class household. He owns ten non-contiguous plots divided into a total of 222 decimals. During the Aus season, he and his family devoted two plots and 48 decimals of land to IRRI, and received a yield of 12.5 maund per acre, a yield significantly below the average for IRRI in Kalampur. Two plots were devoted to jute, four plot to Aus, one plot to fallow and two plots to bamboo. His household occupied the other plot of land owned.

Mr. Ali is the head of a Small farm class household in Kalampur. He owns 143 decimals of land divided into seven plots. During the Aus season, he planted three plots of fifty-four decimals in IRRI and received a yield of fifteen maund or 27.8 maund per acre. His homestead occupied one of the plots and two were given over to jute and one to Aus paddy.

Mr. Babu is the head of a Marginal farm class household, owing only thirty-six decimals of land on four plots. He grew IRRI in two plots and harvested eight maund from only twenty decimals giving him a high IRRI yield of 40.0 maund per acre. He also planted one plot in jute and devoted his other plot to the homestead.

Summarizing the Aus season in Choto Kalampur, the largest number of plots farmed by a single household was thirty-six and the largest amount of land farmed by a single household was six acres. As a village, the average amount of land farmed was 1.62 acres. Approximately fifty percent of the households farmed over one acre and fifty percent of the households farmed less than one acre during the Aus season.

#### JALSHA BOROHISSA

In Jalsha during the Aus season, Large farm class households devoted an average of 6.0 plots totaling an average of 1.8 acres of land to IRRI and received an average yield of 31.3 maund per acre. The largest yield by a single Large farm class household was 47.2 maund per acre and the smallest yield was 10.0 maund per acre. Sixty-six percent of the Large farm class households in Jalsha grew IRRI paddy during this season.

For the Small farm class households growing IRRI paddy during the Aus season, their average yield was 31.8 maund per acre. These households devoted an average of 2.8 plots and .44 acres to IRRI. The largest yield by a household was 42.2 maund per acre and the lowest yield by a household was 10.0 maund per acre. Sixty-five percent of the Small farm class household in Jalsha grew IRRI during the Aus Season.

Examples of the farming activities of a few of the families in Jalsha for the Aus season are presented, as follows.

Mr. Ahmad is the head of a Large farm class household. He owns a total of 290 decimals of land divided into thirteen plots. In the Aus season, he planted six plots in IRRI, three plots in jute, and two plots in Aus paddy. He devoted one plot to a seed bed, had one plot in fallow, and one plot for his homestead. He devoted 116 decimals of land to IRRI and received a yield of 42.2 maund per acre.

Mr. Farouk is the head of a Small farm class household. He had eleven plots equaling a total of 163 decimals. During this period of the year, he received an average of 23.5 maund of IRRI paddy per acre which he planted in five plots equaling .73 acres. He also planted three plots in jute, one plot in Aus paddy, and one plot in sugar cane.

Mr. Alam is a Marginal farm class household farmer, owning only a very small homestead plot of fifteen decimals in size. He, however, rented-in two plots of land which he devoted to IRRI. For his labors, he received nineteen maund of paddy or averaged 40.4 maund per acre. This was the only Marginal farm class household in Jalsha to grow IRRI during the Aus season.

Summarizing the Aus season in Jalsha, the largest number of plots farmed by a single household was nineteen and the largest amount of land farmed by a single household was 6.5 acres. As a village, the average amount of land farmed was 1.17 acres. Approximately sixty percent of the households farmed over one acre and about forty percent of the households farmed less than one acre.

## TENANCY ARRANGEMENTS

Farmers do not work only the plots they own. As we discussed in Chapter 2, a given agricultural household is likely to be involved in a wide array of tenancy arrangements, some based on ownership, others on sharecropping, leasing-in and leasing-out, renting-in and renting-out, and mortgaging-in and mortgaging-out. Marginal, Small, and Large farm class households are effectively tied together by a web of economic and social relationships reflected in the tenancy rights and obligations to specific plots of land spread throughout and beyond the village.

While it might appear at first glance that landless farmers and those with very meager holdings would be the most active participants in such tenancy arrangements, it should be noted that every arrangement has two sides. Those without land or with very little land effectively become the clients of the farmers with larger holdings. This system of agricultural client-patronage offers all participants the option to spread their obligations and responsibilities or to place most or all of them with a single partner.

For example, Mr. M. Ali, a farmer with just two small plots of his own, might farm one of these, might sharecrop two more plots with Mr. A. Zaman, lease-in another plot with Mr. R. Rahman, rent-in a plot from Mr. B. Kalim, and even mortgage out one of his own two plots because of the need for some immediate cash (such as for a daughter's marriage). Each of these tenancy arrangements might be valid for a single season or a whole agricultural year.

Another strategy might be followed by another marginal farmer, Mr. C. Chandrasakar, who decides to work all three of his own plots and then to sharecrop six additional plots all of which belong to his father's brother. Moreover, he agrees to take on the sharecropping obligation for the entire agricultural year.

Through such arrangements, farmers can commit themselves and their households to a series of commitments during the year (or season) with different patrons. Alternatively, they can focus their efforts on a single patron who is willing to risk the client's capability to make good on the deal.

These two tenancy strategies can be called "diversified" and "unified." Logically, in the most extreme form of the "unified" strategy a farmer uses only those plots he owns himself. In theory, both strategies can be found among all farmers -- from the landless to the wealthiest -- although it remains for future research to provide detailed results regarding the distribution of these strategies by farm class categories, by plot size, by crop type, and by season.

In accord with our focus on the Aus season earlier in this chapter, we present data here on pattern of land ownership and tenancy. Table 3.2 gives the type of tenancy arrangements found among the sample households, according to farm class category, for Kalampur. Table 3.3 gives the same information for Jalsha.

TABLE 3.2 TENANCY ARRANGEMENTS BY PLOT  
AUS SEASON -- KALAMPUR

TENANCY ARRANGEMENTS				
FARM CLASS	HOUSE-- HOLD #	OWNER No.	MIXED No.	TOTAL No.
Large	1	26	10	36
Large	2	7	11	18
Large	3	15	0	15
Large	5	12	0	12
Large	8	9	0	9
Large	10	11	0	11
Large	18	6	7	13
Large	20	6	8	14
SUBTOTAL		91	37	128
Small	4	10	0	10
Small	6	9	0	9
Small	7	16	4	20
Small	9	9	1	10
Small	11	3	3	6
Small	12	7	0	7
Small	13	6	0	6
Small	17	10	2	12
Small	19	17	0	17
Small	22	5	0	5
Small	24	5	0	5
Small	25	7	0	7
Small	30	1	5	6
SUBTOTAL		105	15	120
Marginal	14	2	0	2
Marginal	15	1	0	1
Marginal	16	9	0	9
Marginal	21	2	0	2
Marginal	23	1	9	10
Marginal	26	4	0	5
Marginal	27	1	0	1
Marginal	28	4	0	4
Marginal	29	1	0	1
Marginal	31	1	0	1
Marginal	32	1	0	1
Marginal	33	1	0	1
Marginal	34	1	0	1
SUBTOTAL		29	9	38
TOTAL		225	61	286

TABLE 3.2 TENANCY ARRANGEMENTS BY PLOT  
AUS SEASON --- JALSHA

		TENANCY ARRANGEMENTS		
FARM CLASS	HOUSE-- HOLD #	OWNER	MIXED	TOTAL
		No.	No.	No.
Large	1	14	5	19
Large	2	13	0	13
Large	3	6	6	12
SUBTOTAL		33	11	44
Small	4	8	1	9
Small	5	12	0	12
Small	6	5	0	5
Small	7	5	0	5
Small	9	4	1	5
Small	10	5	3	8
Small	11	12	1	13
Small	12	6	2	8
Small	14	11	0	11
Small	15	11	0	11
Small	17	7	9	7
Small	18	6	0	6
Small	19	6	1	7
Small	20	2	6	8
Small	21	9	2	11
Small	22	5	0	5
Small	25	1	1	2
Small	31	8	0	8
SUBTOTAL		123	18	141
Marginal	8	3	0	3
Marginal	13	2	0	2
Marginal	16	3	3	6
Marginal	23	1	0	1
Marginal	24	1	0	1
Marginal	26	2	0	2
Marginal	27	1	0	1
Marginal	28	4	2	6
Marginal	29	2	0	2
Marginal	30	1	1	2
Marginal	32	1	0	1
Marginal	33	3	1	4
Marginal	34	1	2	3
SUBTOTAL		25	9	34
TOTAL		181	38	219

The pattern of plot use during the Aus season is similar in both villages. In Kalampur 79% of the plots are used by their owners and 21% are in "mixed" use; in Jalsha 83% are used by their owners and 17% are in "mixed" used (in this context "mixed" includes all types of sharecropping, leasing, renting, and mortgaging). Analysis of the distribution according to farm class categories shows that both villages have the same profiles: for Large farm class households, 29% of the plots are "mixed" in Kalampur and 25% are "mixed" in Jalsha; for Small farm class households, the figure is 13% in both communities; and for Marginal farm class households, the figures are 24% in Kalampur and 26% in Jalsha. Also, we see that 10 of the 34 households in Kalampur are involved in "mixed" use arrangements, whereas 16 of the 34 in Jalsha are involved.

A more detailed analysis of the "mixed" category shows that the Large farm class households rent out plots (15 in Kalampur and 4 in Jalsha), but rent in none; they sharecrop out plots (11 and 2, respectively), but sharecrop in none; they neither mortgage plots in or out (note: another 16 plots belonging to Large farm class households can not be specified regarding their use except as "mixed."

Small farm class households rent out (3 in Kalampur and 3 in Jalsha) and rent in (1 and 1, respectively); they sharecrop out (5 and 6, respectively), and sharecrop in (6 and 7, respectively); one household in Jalsha even mortgages out one plot.

Marginal farm class households do little renting out (none in Kalampur and 3 in Jalsha) or renting in (just one plot in Jalsha); they also do relatively little sharecropping in (none in Kalampur and four in Jalsha) or sharecropping out (9 plots, all from a single farmer, in Kalampur and just one plot in Jalsha). They are not involving in mortgaging land.

For Kalampur we have good data for plot size and crop use during the Aus season for 50 "mixed use" plots (pertaining to nine households). The total amount of land involved in "mixed" use tenancy is 935 decimals, with an average of 104 decimals per household so involved and with a range from 335 to only 26 decimals. The crops planted in these plots include Aus (22), IRRI (10), and Jute (8), with one laying fallow.

In Jalsha there are good data for plot size and crop use during the Aus season for only 33 "mixed use" plots (pertaining to 15 households). The total amount of land involved in "mixed use" tenancy is 714 decimals, with an average of 47 decimals per household so involved and with a range from 154 to only five decimals. The crops planted in these plots include Aus (6), IRRI (7), and Jute (6), as well as sugarcane (1) and chili (1).

What can we conclude from these data on plot use during the Aus season? It appears that both villages share common patterns in terms of the proportion of plots operated by owners versus tenants. The proportion is about four to one -- in other words, about 20% of all plots in the sample are not owner-operated.

Furthermore, it appears that the greater amount of non-agricultural work opportunities in Kalampur gives the Marginal (especially, the landless) farm class households other

economic options than renting or sharecropping plots. By comparison, Jalsha seems to have more of the expected participation in such client arrangements among its Marginal farm class households.

#### THE COST OF FARMING

In order to appreciate the decision-making by agriculturalists in Kalampur and Jalsha, we need to examine not only the cropping patterns and tenancy arrangements discussed above but also the costs involved in farming for households in the three farm class categories. The following case study is drawn from Wallace (1984:51ff.)

Latif Rahman is the head of a Small farm class household possessing only one acre of land. On a plot located near their homestead, measuring sixteen decimals in size, they planted jute during one season and mixed Aus and B. Aman a year later. For both the crops the work pattern was as follows: plowing, harrowing, plowing, harrowing, plowing, harrowing, weeding, weeding, weeding, and harvesting, i.e., the land for each crop was plowed and harrowed three times, weeding was done three times, and harvesting only once. This work pattern is illustrative of that found among most farmers in the Kalampur and Jalsha area.

Utilizing only his labor and two oxen, it took Latif Rahman one day to plow the sixteen decimal plot. He took a day to harrow the plot. He plowed the plot again five

days later and then harrowed it again. In total, he gave six days to this activity. Because he had to rent the oxen, the cost of plowing and harrowing (excluding his labor) was taka 40/= per day. So, plowing and harrowing cost the household of Rahman taka 240/= for each crop.

The jute seeds were obtained by Rahman from a government field station free of charge and the seeds for the mixed paddy came from his harvest of the previous year. The household thus incurred no cash expenses for the seeds for the two crops.

Rahman hired one day laborer to help him with planting the jute and the paddy. Planting each crop was accomplished in one day. He paid the laborer taka 15/= a day plus food.

The crops were weeded three times each during the growing season. Weeding, of course, is labor intensive work so it took six hired laborers (plus Rahman) one day to weed the sixteen decimal plot. They weeded each crop three times and were paid taka 15/= and food per day. For weeding one crop then, Rahman had a cash outlay of taka 270/= plus food costs.

Harvesting the jute required two hired laborers for one day at taka 15/= per day plus food. The total cost for harvesting the jute was taka 30/= and food.

Harvesting the mixed paddy required six laborers for one day at a cost of taka 15/= each plus food. Total cash cost to Rahman for harvesting the mixed paddy was taka 90/=.

The total cash cost to the household for plowing, harrowing, weeding and harvesting the jute crop was taka 555/=. The cash cost for the mixed paddy was taka 615/=.

Processing the jute and paddy harvest was done by Rahman and his wife, Dulupa. Processing steps for jute in the region are: soaking the harvest in water for twenty days, separating the fiber from the sticks, cleaning the fiber, tying the sticks into bundles, drying the fiber, storing the fiber, and finally selling the fiber. The mixed paddy is processed, as follows: drying, wetting the paddy, parboiling, husking, milling and storing.

The cash cost per decimal of land in Kalampur and Jalsha is probably higher for a Small farm class household than for a Large farm class household. Most Large farm class Households own their own oxen so they have only the feed cost for animal power. Second, labor intensive work such as weeding is more cost efficient on larger plots of land. Because labor is hired by the day, workers tend to work at a speed that requires a full day to complete the job. Even if the laborers only work three-quarters of a day, they are still paid for the whole day. Six workers may take one day to weed sixteen decimals or the same six workers may take one day to weed twenty-five decimals of land.

In the case of Rahman, it cost taka 555/= to produce a jute crop on sixteen decimals of land. A neighboring household planted thirty-two decimals of jute at a cash cost of taka 585/=. The neighbor, who owned his own oxen, used about the same number of person hours in producing the crop of jute as did Rahman. But,

the neighbor will get twice the jute yield as Rahman at about the same cost. This type of evidence suggests that there is a plot size below which it becomes economically inefficient for Marginal or Small farm class households to plant certain crops. This is a question for future research in Kalampur and Jalsha.

## CHAPTER 4

### FARM HOUSEHOLDS

In this chapter we examine the characteristics of the sample households in Kalampur and Jalsha. The data for the analysis are derived primarily from the Household Survey questionnaire administered to the heads of the 34 sample households in each village. We shall focus our attention on the following topics: (1) membership characteristics; (2) residential characteristics; (3) economic characteristics; and (4) developmental cycle characteristics.

According to Cain, Khanam, and Nahar (1979:406),

In analyzing agrarian class structure and the processes that result in economic differentiation, the appropriate unit of analysis is the household. In rural Bangladesh, the household (usually consisting of a nuclear family) is the primary corporate economic unit, the locus of production and consumption. Production relations exist between landed and landless households and landlord and tenant households. As members of a corporate unit, individuals within a household face joint risks and rise and fall together in the class hierarchy.

## A DESCRIPTION OF FAMILY AND HOUSEHOLD IN KALAMPUR AND JALSHA

Before presenting information drawn from the Household Survey, it is appropriate to offer some general ethnographic description of the characteristics of family and household in Kalampur and Jalsha. The following description is drawn from Wallace (1984:91-94).

The family, in nuclear and extended form, is the structural foundation on which society is based. This social structural unit assumes primary responsibility for the needs of its members -- socialization, education, and economic and psychological security. A child is most significantly influenced by his membership and position in his or her nuclear and extended family. Secondly, a child is influenced by the position of his or her family within the social matrix of the village, region, and nation.

In Choto Kalampur and Jalsha, the nuclear family is the primary social unit, followed closely in importance by the extended family. A person's kinsmen constitute his or her primary reference group and it is with these kin that a person will most closely interact throughout his life. The life cycle of the family is best viewed as beginning with marriage, so we shall focus attention on how marriages are arranged and families formed.

The average age at marriage for males in the two villages is 20 years old and the average for females is 15 years old. It does not appear that the farm class of one's household significantly influences age at marriage. Because girls marry soon after puberty, by tradition they become valuable

reproductive assets to the groom's family, thus assuring the biological and social perpetuation of that patrilineage. On the other hand, by age 15, a young girl has become a potential economic liability to her family of origin because her younger siblings are able to assume many of her economic functions. Given the general patrilocal residence rules in rural Bangladesh, a girl's economic value increases as an unpaid laborer in a family other than her own family of origin.

With few exceptions, marriages in Kalampur and Jalsha are arranged. Often, the potential bride and groom will have never seen one another because the bride usually lives with her family of origin in a village other than that of her future husband. According to informants, when selecting a bride for their sons, parents consider the following: the beauty of the girl, her religion (Moslem), her obedience, and the social status of her family. Ideally, the girls should be in good health, of high moral character, skilled in the chores expected of a wife, and her family should be at least of equal social status to that of the groom. Thus, the groom's family seeks equality in marriage rather than explicitly trying for an hypergamous (superior) or hypogamous (inferior) marriage arrangement. The girl's family should be concerned about the boy's appearance, education, economic potential, and the social status of his family. Girls appear to be taught early in life how to carry out the tasks for which they will later be responsible as housewives and mothers. Boys, on the other hand, appear to receive relatively little explicit training in what is involved in being a husband and father.

Proposals of marriage are usually initiated by the parents of a boy through a go-between (ghatak). Once a boy and girl have been paired as potential marriage partners, considerable negotiation takes place between the two families. In some cases, the family of the groom has to pay a bride-price of goods, money, land or a combination of these. In other cases, the girl must bring a dowery of goods, money, and/or land to the marriage. Occasionally, negotiations end with the groom's parents providing a bride-price and the bride's parents providing a dowery. The lack of stability in the bride-price or dowery system is a reflection of changes in the reproductive and economic value of females (Lindenbaum 1981; Harbinson and Robinson 1983).

As soon as the marriage ceremony is completed, the bride moves to the house of her husband in accord with the prevailing rules of patrilocal residence in the villages. At first, she and her husband are likely to live in the house of her husband's father. Even when they build their own house, it is apt to be next to or in the immediate vicinity of the groom's parental home. This is the homestead (bari), a cluster of houses on raised land, which consists of patrilineally related families. The nuclear family is submerged within this larger kinship group.

With marriage, the bride not only acquires a husband that she probably did not know, but also becomes a member of a residential group filled with other unfamiliar persons. These circumstances often place the wife in a very difficult situation (Almagir 1977). The wife not only has to be a housewife and laborer, possessed of the qualities of piety, patience, and obedience expected by her husband, she must also work to keep her in-laws

--- especially her mother-in-law -- happy or at least satisfied with the match that they have made for their son. In effect, she must be obedient not only to her husband but to all other adult members of the homestead (bari) until such time as she bears sons who are grown and eventually bring their own wives into the compound.

#### HOUSEHOLD MEMBERSHIP CHARACTERISTICS

In Kalampur the 34 sample households contain a total of 215 individuals. The smallest of the households contains two persons and the largest fifteen, with an average size of 6.3 persons. The 34 sample households in Jalsha contain only 186 individuals, with an average size of 5.5 and a range from two to ten persons. Examination of the data in terms of farm class shows some important differences in household size for the Marginal, Small, and Large categories (see Table 4.1). The average household size for Kalampur is 4.9, 7.1, and 7.4 and for Jalsha is 4.8, 5.5, and 8.8, respectively for the three categories.

The range of household size by farm class is also revealing. In Kalampur Marginal households range in size from three to seven members, Small households from two to fifteen, and Large households from four to ten. In Jalsha the parallel figures are two to ten for Marginal, three to eight for Small, and six to ten for Large.

TABLE 4.1 HOUSEHOLD SIZE BY FARM CLASS -- KALAMPUR AND JALSHA

KALAMPUR: FARM CLASS CATEGORIES

HOUSEHOLD SIZE	MARGINAL		SMALL		LARGE		TOTAL	
	No.	%	No.	%	No.	%	No.	%
15			1	7.7			1	2.9
14			0	0.0			0	0.0
13			0	0.0			0	0.0
12			0	0.0			0	0.0
11			0	0.0			0	0.0
10			0	0.0	1	12.5	1	2.9
9			3	23.1	1	12.5	4	11.8
8			1	7.7	1	12.5	2	5.9
7	4	30.8	3	23.1	4	50.0	11	32.4
6	0	0.0	1	7.7	0	0.0	1	2.9
5	2	15.4	1	7.7	0	0.0	3	8.8
4	5	38.4	2	15.4	1	12.5	8	11.6
3	2	15.4	0	0.0	0	0.0	2	5.9
2	0	0.0	1	7.7	0	0.0	1	2.9
1	0	0.0	0	0.0	0	0.0	0	0.0
TOTAL	13	100.0	13	100.0	8	100.0	34	100.0
%	38.3		38.3		23.4		100.0	

JALSHA: FARM CLASS CATEGORIES

HOUSEHOLD SIZE	MARGINAL		SMALL		LARGE		TOTAL	
	No.	%	No.	%	No.	%	No.	%
10	1	7.7			1	33.3	2	5.9
9	0	0.0			1	33.3	1	2.9
8	1	7.7	1	5.6	0	0.0	2	5.9
7	0	0.0	3	16.7	0	0.0	3	8.8
6	1	7.7	6	33.3	1	33.3	8	23.6
5	3	23.1	3	16.7	0	0.0	6	17.6
4	3	23.1	4	22.2	0	0.0	7	20.6
3	3	23.1	1	5.6	0	0.0	4	11.8
2	1	7.7	0	0.0	0	0.0	1	2.9
1	0	0.0	0	0.0	0	0.0	0	0.0
TOTAL	13	100.0	18	100.0	3	100.0	34	100.0
%	38.3		52.8		8.9		100.0	

A quick glance suggests that the Marginal households are similar in both villages, whereas the Small and Large households in Jalsha and Kalampur differ. The Marginal households in Kalampur and Jalsha have similar land holdings per household (24.7 and 23.1 decimals, respectively) and per capita (5.0 and 4.9 decimals, respectively). The average holdings for the Small households in Jalsha is somewhat lower than that for Kalampur (141.0 and 107.8 decimals, respectively), but the per capita figures are similar (24.1 and 25.6 decimals, respectively) for Small households in each village. Even the apparent differences in the average land holdings for Large households (370.4 decimals for Kalampur and 437.0 for Jalsha) disappears when analyzed per capita (50.2 and 52.4 decimals, respectively). In effect, the number of persons in the sample households in both villages matches very closely the total amount of agricultural land owned for each of the three farm class categories.

The average age of sample household members in both villages is very similar: 22.6 for Kalampur and 22.9 for Jalsha. In terms of age cohorts, children (age 0-10) represent 30.2% of the population in Kalampur and 35.5% in Jalsha. Young adults (age 11-30) are 42.3% and 36.%, middle age adults (age 31-50) are 19.1% and 20.0%, and older adults (age 51 and above) are 8.4% and 8.5%, respectively. Thus, aside from the slightly greater number of children in Jalsha and the correspondingly slightly greater number of young adults in Kalampur, the age profiles of the sample households in the two villages are similar. The age distribution by five-year cohorts for the two samples is also similar for the three farm class categories (see Table 4.2).

TABLE 4.2 AGE COHORTS BY FARM CLASS -- KALAMPUR AND JALSHA

KALAMPUR: FARM CLASS CATEGORIES

AGE COHORT	MARGINAL		SMALL		LARGE		TOTAL	
	No.	%	No.	%	No.	%	No.	%
71+	0	0.0	2	2.2	2	3.4	4	1.9
66-70	0	0.0	2	2.2	0	0.0	2	.9
61-65	0	0.0	0	0.0	1	1.7	1	.5
56-60	0	0.0	3	3.3	1	1.7	4	1.9
51-55	4	6.3	2	2.2	1	1.7	7	3.3
46-50	2	3.1	2	2.2	3	5.1	7	3.3
41-45	3	4.7	5	5.4	2	3.4	10	4.7
36-40	2	3.1	4	4.3	2	3.4	8	3.7
31-35	7	10.9	7	7.6	2	3.4	16	7.4
26-30	4	6.3	2	2.2	4	6.8	10	4.7
21-25	2	3.1	15	16.3	6	10.2	23	10.7
16-20	9	14.1	11	12.0	5	8.5	25	11.6
11-15	10	15.6	13	14.1	10	16.9	33	15.3
6-10	11	17.2	11	12.0	7	11.9	29	13.5
0-5	10	15.6	13	14.1	13	22.0	36	16.7
TOTAL	64	100.0	92	100.0	59	100.0	215	100.0
%	29.8		42.8		27.4		100.0	

JALSHA: FARM CLASS CATEGORIES

AGE COHORT	MARGINAL		SMALL		LARGE		TOTAL	
	No.	%	No.	%	No.	%	No.	%
71+	0	0.0	1	1.0	1	4.0	2	1.1
66-70	0	0.0	1	1.0	1	4.0	2	1.1
61-65	2	3.2	3	3.0	0	0.0	5	2.7
56-60	0	0.0	2	2.0	2	8.0	4	2.2
51-55	0	0.0	3	3.0	0	0.0	3	1.6
46-50	3	4.8	1	1.0	1	4.0	5	2.7
41-45	4	6.5	4	4.0	0	0.0	8	4.3
36-40	5	8.1	6	6.1	1	4.0	12	6.5
31-35	4	6.5	7	7.1	1	4.0	12	6.5
26-30	7	11.3	9	9.1	0	0.0	16	8.6
21-25	2	3.2	10	10.1	3	12.0	15	8.1
16-20	7	11.3	7	7.1	3	12.0	17	9.1
11-15	7	11.3	8	8.1	4	16.0	19	10.2
6-10	13	21.0	18	18.2	4	16.0	35	18.8
0-5	8	12.9	19	19.2	4	16.0	31	16.7
TOTAL	62	100.0	99	100.0	25	100.0	186	100.0
%	33.3		53.2		13.4		100.0	

The sex distribution of the household members shows a slight bias in favor of the females in Kalampur (114 females to 101 males) whereas there is a balance in Jalsha (94 females to 92 males). Analysis of the sex data for Kalampur according to farm class shows that the distribution of males and females differs little in the Marginal (33 females to 31 males) and Small (47 females to 45 males) categories, but shows a bigger difference in the Large (34 females to 25 males) category. In all cases, the women outnumber the men. For Jalsha, however, the males slightly outnumber the females in the Large (14 to 11) and Small (51 to 48) categories, while the females predominate in the Marginal (35 to 27) category. Although these variations may have some impact on the lifestyle of the inhabitants of specific households, they are not statistically significant given the sample sizes. For our purposes, the sex ratios should be considered as essentially similar for all farm class categories for both villages.

Age-sex pyramids are presented in numerical form in Table 4.3. Since there are no significant differences among the three farm class categories in regard to age-sex distributions, only the aggregated data are provided. The results suggest that there are no statistically significant differences in the age-sex profiles for the sample households in Kalampur and Jalsha.

In sum, with regard to basic demographic indicators -- numbers of members and their age and sex distribution -- the sample households in Kalampur and Jalsha share numerous similarities, especially when the analysis is carried out in terms of farm class categories.

TABLE 4.3 AGE-SEX COHORTS -- KALAMPUR AND JALSHA

AGE COHORT	KALAMPUR				JALSHA			
	MEN		WOMEN		MEN		WOMEN	
	No.	%	No.	%	No.	%	No.	%
71+	0	0.0	4	3.5	1	1.1	1	1.1
66-70	2	2.0	0	0.0	2	2.2	0	.0
61-65	0	0.0	1	0.9	1	1.1	4	4.3
56-60	2	2.0	2	1.8	3	3.3	1	1.1
51-55	3	3.0	4	3.5	1	1.1	2	2.1
46-50	6	5.9	1	0.9	1	1.1	4	4.3
41-45	4	4.0	6	5.3	4	4.4	4	4.3
36-40	3	3.0	5	4.4	7	7.7	5	5.3
31-35	12	11.9	4	3.5	8	8.8	4	4.3
26-30	3	3.0	7	6.1	7	7.7	9	9.6
21-25	9	8.9	14	12.3	9	9.9	6	6.4
16-20	12	11.9	13	11.4	5	5.5	12	12.8
11-15	18	17.8	15	13.2	12	13.2	7	7.4
6-10	12	11.9	17	15.0	16	17.6	18	19.0
0-5	15	14.7	21	18.3	14	15.4	17	18.0
TOTAL	101	100.0	114	100.0	92	100.0	94	100.0
%	29.8		42.8		27.4		100.0	

## RESIDENTIAL CHARACTERISTICS

According to Cain, Khanam, and Nahar (1979:409-410), "Land gives the household head power to control his sons, and the labor required to operate the land justifies a larger and more complex household structure. Land ownership also increases the likelihood that a surplus can be generated and applied to the support of dependent kin."

The residential form of the households in the villages depends fundamentally on the number of married couples living in the house. We initially defined as "nuclear" those households with only one married couple (regardless of the number of additional persons living in the house aside from the husband, wife, and their unmarried children). We further defined as "extended" those households containing two or more married couples. In these terms there are 24 (70.6%) nuclear and 10 (29.4%) extended households in Kalampur, while Jalsha has 25 (73.5%) nuclear and 9 (26.5%) extended households.

Analysis of residential form by farm class categories shows an important pattern. For Kalampur, there are no extended households among the Marginal category, six among the Small category, and four among the Large category. For Jalsha, the respective figures are one for Marginal, six for Small, and two for Large. Obviously, the somewhat smaller family sizes found among the Marginal households in both communities also reduce their chances of having two or more married couples present. By way of contrast, the Small and Large farm class households are about evenly divided between nuclear and extended residential forms. This relationship emerges not only at the household level

but also in regard to the individuals forming the living groups. For Kalampur 131 individuals (60.9%) live in nuclear households while 84 (39.1%) live in extended households. The respective figures for Jalsha are 117 (62.9%) and 69 (37.1%). Analysis of these individual-level data by farm class show statistically significant patterns (see Table 4.4)

TABLE 4.4 HOUSEHOLD TYPE BY FARM CLASS -- KALAMPUR AND JALSHA

KALAMPUR: FARM CLASS CATEGORIES								
HOUSEHOLD TYPE	MARGINAL		SMALL		LARGE		TOTAL	
	No.	%	No.	%	No.	%	No.	%
NUCLEAR	64	100.0	41	44.6	26	44.1	131	60.9
EXTENDED	0	0.0	51	55.4	33	55.9	84	39.1
TOTAL	64	100.0	92	100.0	59	100.0	215	100.0
%	29.8		42.8		27.4		100.0	

Chi-Square = 58.43556 with 2 degrees of freedom; Significance = .0000  
 Pearson's R = .44074; Significance = .0000

JALSHA: FARM CLASS CATEGORIES								
HOUSEHOLD TYPE	MARGINAL		SMALL		LARGE		TOTAL	
	No.	%	No.	%	No.	%	No.	%
NUCLEAR	52	83.9	59	59.6	6	24.0	117	62.9
EXTENDED	10	16.1	40	40.4	19	76.0	69	37.1
TOTAL	62	100.0	99	100.0	25	100.0	186	100.0
%	33.3		53.2		13.4		100.0	

Chi-Square = 28.35966 with 2 degrees of freedom; Significance = .0000  
 Pearson's R = .38654; Significance = .0000

### ECONOMIC CHARACTERISTICS

The people in the sample households are actively involved in economic activities. Even young children help with household chores, run errands, and assist in the fields (Cain 1977). At the other extreme, old people hardly "retire" from economic responsibilities, although they may have a reduced work load or function as babysitters or in similar important albeit passive roles.

The Household Survey data reveal that 55.2% of the persons in Kalampur have at least one occupation, while 54.4% of those in Jalsha are working. The rest were reported as "not working" (33.5% in Kalampur and 35.1% in Jalsha) or as "students" (11.3% and 10.5%, respectively). The labor force participation of the people in the sample households in Kalampur and Jalsha can be grouped into the following categories: Housewife (15.5% and 19.9%, respectively); Domestic work (11.9% and 7.0%); Agriculture (17.5% and 19.9%); General Labor (2.1% and 1.8%); Rickshaw or cart puller (4.1% and 0.6%); Trades (1.5% and 3.5%); Professional work (2.1% and 1.2%); and Business (0.5% and 0.6%).

A secondary occupation is reported by only a few persons --7.0% in Kalampur and 10.2% in Jalsha. In Kalampur six individuals have agricultural labor as an extra job, two do general labor, three are professionals, and four are in business. In Jalsha four are involved in agricultural labor, three in general labor, two in trades, one in professional activities, and nine in some form of business.

Table 4.5 shows the primary occupation by farm class for individuals in the sample households in the two villages.

TABLE 3.5 PRIMARY OCCUPATION BY FARM CLASS -- KALAMPUR AND JALSHA

KALAMPUR: FARM CLASS CATEGORIES

PRIMARY OCCUPATION	MARGINAL		SMALL		LARGE		TOTAL	
	No.	%	No.	%	No.	%	No.	%
HOUSEWIFE	11	17.7	12	15.0	7	13.5	30	15.5
DOMESTIC	6	9.7	14	17.5	3	5.8	23	11.9
AGRI LABOR	6	9.7	17	21.3	11	21.2	34	17.5
GEN LABOR	4	6.5	0	0.0	0	0.0	4	2.1
RICKSHAW	4	6.5	4	5.0	0	0.0	8	4.1
TRADES	1	1.6	1	1.3	1	1.9	3	1.5
PROFESSION	1	1.6	1	1.3	2	3.8	4	2.1
BUSINESS	0	0.0	0	0.0	1	1.9	1	0.5
STUDENT	4	6.5	4	5.0	14	26.9	22	11.3
NOT WORK	25	40.3	27	33.8	13	25.0	65	33.5
TOTAL	62	100.0	80	100.0	52	100.0	194	100.0
%	32.0		41.2		26.8		100.0	

Chi-Square = 40.40985 with 18 degrees of freedom; Significance = .0018

JALSHA: FARM CLASS CATEGORIES

PRIMARY OCCUPATION	MARGINAL		SMALL		LARGE		TOTAL	
	No.	%	No.	%	No.	%	No.	%
HOUSEWIFE	12	19.4	20	20.8	2	15.4	34	19.9
DOMESTIC	7	11.3	5	5.2	0	0.0	12	7.0
AGRI LABOR	8	12.9	22	22.9	4	30.8	34	19.9
GEN LABOR	2	3.2	1	1.0	0	0.0	3	1.8
RICKSHAW	1	1.6	0	0.0	0	0.0	1	0.6
TRADES	3	4.8	3	3.1	0	0.0	6	3.5
PROFESSION	2	3.2	0	0.0	0	0.0	2	1.2
BUSINESS	1	1.6	0	0.0	0	0.0	1	0.6
STUDENT	1	1.6	12	12.5	5	38.5	18	10.5
NOT WORK	25	40.3	33	34.4	2	15.4	60	35.1
TOTAL	62	100.0	96	100.0	13	100.0	171	100.0
%	36.3		56.1		7.6		100.0	

Chi-Square = 31.61726 with 18 degrees of freedom; Significance = .0244

It is clear that individuals in all categories of households are involved in diverse occupations. The household heads report themselves to be agriculturalists in all cases and their spouses are "housewives," but other household members work in primarily non-agricultural activities to help support their families. The Marginal farm class households are underrepresented in the "student" category while they are overrepresented in the lowly paid categories such as "rickshaw or cart puller" and "general labor." They are also underrepresented in the "agricultural labor" category -- since those who are landless may consider agriculture to be only a secondary occupation compared to, say, rickshaw pulling.

#### DEVELOPMENTAL CYCLE CHARACTERISTICS

Rural people in Bangladesh pass through a number of household situations during their lives (cf. Cain 1978:421-438). The general patterns differ somewhat for males and females because of the patrilineal and patrilocal features of the kinship and residential systems. In most instances, both males and females (defined here as "ego") would be born into a situation in which their parents are living in an extended relationship with ego's paternal grandparents. This is a first period of expansion within the developmental cycle.

The second phase in the developmental cycle occurs as ego grows up and the set of siblings expands at the same time that ego's father's father and father's mother are getting older. Given the relatively short lifespans for rural people in Bangladesh, this tends to be a period of reduction in the number of married couples in the household (cf. D'Souza and Bhuyia

1982). Most commonly, ego's father's father dies and the responsibility for serving as head of the household passes to one ego's father or one of ego's father's brothers, while the surviving widow remains in the household.

The next period in the developmental cycle occurs when ego marries. At this point the careers of males and females diverge. The males are likely to remain in the homestead or nearby when they marry. On the other hand, the females are likely to leave their natal homestead and move in with their groom's household, often located in another village or town. In either case, the new marriages insure that the household contains two or more couples.

The next phase in the developmental cycle of the household involves the creation of a three-generational extended household. The newly married ego begins to have children and this represents further expansion. At this point, a male ego has his parents alive and young children joining the household. For a female ego, she is bearing children and working in the household of her husband and his family, which also takes on a multi-generational character during this phase.

When a male ego's father dies, he or a brother will assume mantle of household headship. At the same time, the household has been reduced into a nuclear form, even though the deceased head's spouse remains living in there. A parallel process occurs in the household where the female ego resides.

Later, as a male ego's children grow up and marry, the household again assumes extended form. Ego is the household head at this time but soon will pass the mantle to one of his sons

either by fiat or through his own death. His widow remains in the household as a senior female, but the developmental cycle has run its course from the perspective of the specific ego who served as our point of reference. In the case of a female ego, she will likely witness the death of her spouse, who had served as household head in that other community in which she had been living for two decades or so, and will either remain there as a widow or go back to her natal homestead as a widowed senior female.

In sum, the generalized hypothetical developmental cycle of the rural agricultural household in Bangladesh involves a dialectical process of expansion and reduction through approximately seven distinctive phases during the lifespan of a given individual. Over time, one would expect that the longer lifespans of females would result in more women living as widows in households controlled by their male relatives. Having presented this brief overview of the developmental cycle, we now describe the situation in Kalampur and Jalsha.

As the information in Tables 4.6 and 4.7 shows, there are many variations on the basic nuclear and extended household types in the two villages. Indeed, rather than the reported 24 nuclear and 10 extended households in Kalampur, analysis of household composition reveals 2 "sub-nuclear" households; 15 simple "nuclear" households; 12 "complex nuclear" households; and 5 "extended" households. For Jalsha, the reported 25 nuclear and 9 extended households should be changed to 1 "sub-nuclear" household; 17 simple "nuclear" households; 7 "complex nuclear" households; and 8 "extended" households.

TABLE 4.6 HOUSEHOLD COMPOSITION -- KALANPUR

FARM CLASS	HOUSEHOLD COMPOSITION	HOUSEHOLD TYPE
Large	Head, Wife, 2 Sons (u), 2 Daus (u) + [1 Son (m), Son's Wife, 1 Son's Son (u)]	Extended
Large	Head, Wife, 2 Sons (u), 1 Dau (u) + [Head's Mo (m), Head's Sis's Dau (m)]	Nuclear +
Large	Head, Wife, 1 Son (u), 2 Daus (u) + [1 Son (m), Son's Wife, 1 Son's Son (u), 1 Son's Dau (u)]	Extended
Large	Head, Wife, 2 Sons (u), 2 Daus (u) + [Head's Mo (w)]	Nuclear +
Large	Head, Wife, 1 Son (u), 4 Daus (u)	Nuclear
Large	Head, Wife, 1 Son (u) + [Head's Mo (w)]	Nuclear +
Large	Head, Wife, 1 Son (u), 3 Daus (u) + [Head's Mo (m)]	Nuclear +
Large	Head, Wife, 2 Sons (u), 3 Daus (u) + [Head's Sis's Son (u)]	Nuclear +
Small	Head, Wife, 2 Sons (u), 3 Daus (u) + [Head's Wife's Mo (w)]	Nuclear +
Small	Head, Wife + [1 Son, Son's Wife, Son's Son (u)]	Extended
Small	Head, Wife, 3 Daus (u) + [Head's Sis (m), Head's Sis's Son (u)] + [Head's Bro's Son's Wife (m)]	Nuclear +
Small	Head, Wife, 2 Sons (u), 2 Daus (u)	Nuclear
Small	Head + [2 Head's Sons, 2 Son's Wives, 2 Son's Sons (u), 2 Son's Daus (u)]	Extended
Small	Head, Wife, 2 Sons (u), 3 Daus (u)	Nuclear
Small	Head, Wife, 1 Dau (u) + [Head's Mo Sis (m)]	Nuclear +
Small	Head, Wife, 4 Sons (u), 1 Dau (d)	Nuclear
Small	Head, Wife, 4 Sons (u) + [Head's Mo (w)]	Nuclear +
Small	Head, Wife	Nuclear
Small	Head, Wife, 2 Sons (u), 3 Daus (u) + [2 Daus (m)]	Nuclear +
Small	Head, Wife, 1 Dau (u) + [Head's Mo (w)]	Nuclear +
Small	Head, Wife, 4 Sons (u), 1 Dau (u) + [3 Sons, 3 Son's Wives, 1 Son's Dau (u)] + [Head's Mo (m)]	Extended
Marginal	Head + [2 Head's Bro (u), 1 Head's Sis (u), 1 Head's Mo (m)]	Nuclear -
Marginal	Head, Wife, 2 Sons (u), 3 Daus (u)	Nuclear
Marginal	Head, Wife, 1 Son (u)	Nuclear
Marginal	Head, Wife, 1 Dau (u)	Nuclear
Marginal	Head, Wife, 1 Son (u), + [1 Dau (m)]	Nuclear +
Marginal	Wife, 1 Son (u), 2 Dau (u)	Nuclear -
Marginal	Head, Wife, 1 Son (u), 2 Dau (u)	Nuclear
Marginal	Head, Wife, 2 Sons (u), 3 Daus (u)	Nuclear
Marginal	Head, Wife, 2 Daus (u)	Nuclear
Marginal	Head, Wife, 1 Son (u), 1 Dau (u)	Nuclear
Marginal	Head, Wife, 2 Sons (u)	Nuclear
Marginal	Head, Wife, 2 Sons (u), 3 Daus (u)	Nuclear
Marginal	Head, Wife, 4 Sons (u), 1 Dau (u)	Nuclear

Note: u = unmarried, m = married, w = widowed, d = divorced

TABLE 3.7 HOUSEHOLD COMPOSITION -- JALSHA

FARM CLASS	HOUSEHOLD COMPOSITION	HOUSEHOLD TYPE
Large	Head, Wife, 4 Sons (u), 1 Dau (u) + [1 Son (m), Son's Wife]	Extended
Large	Head, Wife, 2 Sons (u), 2 Dau (u) + [1 Son (m), Son's Wife, 1 Son's Son (u),	Extended
Small	Head, Wife, 2 Daus (u) + [2 Head's Bro (u), Head's Mo (m)]	Nuclear +
Small	Head, Wife, 2 Sons (u) + [Head's Fa, Head's Mo]	Extended
Small	Head, Wife, 3 Sons (u)	Nuclear
Small	Head, Wife, 2 Sons (u)	Nuclear
Small	Head, Wife, 2 Sons (u), 2 Daus (u)	Nuclear
Small	Head, Wife, 1 Son (u), 1 Dau (u)	Nuclear
Small	Head, Wife, 3 Son's (u), 1 Dau (u)	Nuclear
Small	Head, Wife, 2 Sons (u) + [Head's Son, Son's Wife, Son's Dau (u)]	Extended
Small	Head, Wife, 1 Son (u), 2 Daus (u) + [Head's Mo (w)]	Nuclear +
Small	Head, Wife, 1 Son (u), 3 Daus (u) + [1 Head's Son, Son's Wife]	Extended
Small	Head, Wife, 1 Son (u), 1 Dau (u)	Nuclear
Small	Head, Wife, 1 Son (u)	Nuclear
Small	Head, Wife, 1 Son (u), 3 Daus (u)	Nuclear
Small	Head, Wife, 1 Son (u) + [Head's Son, Son's Wife, Son's Dau (u)]	Extended
Small	Head, Wife, 1 Dau (u) + [Head's Bro (u), Head's Mo (w)]	Nuclear +
Small	Head, Wife, 2 Sons (u)	Nuclear
Small	Head, Wife, 1 Son (u) + [Head's Son, Son's Wife]	Extended
Small	Head, Wife, 1 Son (u), 2 Daus (u) + [Head's Wife's Mo (c)]	Nuclear +
Marginal	Head, Wife + [2 Head's Bro (u), 2 Head's Sis (u), Head's Mo (w)]	Nuclear +
Marginal	Head, Wife, 1 Son (u), 1 Dau (u)	Nuclear
Marginal	Head, Wife, 3 Sons (u) + [2 Head's Sons, 2 Son's Wives, 1 Son's Dau (u)]	Extended
Marginal	Head, Wife, 1 Son (u)	Nuclear
Marginal	Head, Wife	Nuclear
Marginal	Head, Wife + [Head's Mo (w)]	Nuclear +
Marginal	Wife (w), 1 Dau (u)	Nuclear -
Marginal	Head, Wife, 1 Son (u), 1 Dau (u) + [Head's Mo (w)]	Nuclear +
Marginal	Head, Wife, 1 Son (u), 1 Dau (u)	Nuclear
Marginal	Head, Wife, 1 Son (u), 1 Dau (u)	Nuclear
Marginal	Head, Wife, 2 Sons (u), 1 Dau (u)	Nuclear
Marginal	Head, Wife, 3 Daus (u)	Nuclear
Marginal	Head, Wife, 1 Son (u), 3 Daus (u)	Nuclear

Note: u = unmarried, m = married, w = widowed, d = divorced

There are only two cases, one in each village, in which households are headed by women. In line with data presented for other rural communities in Bangladesh (cf. Cain, Khanam, and Nahar 1979:410-411), these are poor Marginal farm class households in which the widow has not had a successful claim on her husband's property. On the other hand, in the period after the Household Survey was completed, the male household head of one of the most successful Large farm class households in Jalsha died. His widow is currently in charge of the household -- from which several of the male and female children are absent, because they are involved in higher educational studies in the city. So, by no means is it impossible for women to run prosperous extended family households with considerable land holdings, but it is still very unusual in Kalampur and Jalsha.

One of the causes for possible misinterpretation of the results of the Household Survey involves the status of certain married women in the sample households whose husbands were not present at the time of the survey. They reported themselves as married and thus the household would be coded as "extended", since it appeared that two or more married couples were present. However, it is impossible to know if these married women are actually abandoned and should, therefore, not be counted as a married couple.

In any event, examination of the data reveals that the differences in household composition among the three farm class categories are quite clear. Marginal households are not only the smallest but have the most rudimentary household types in both Kalampur and Jalsha. The Small and Large households have more

members and show more variations on the themes of "complex nuclear" and "extended" types. As Cain, Khanam, and Nahar (1979:410) have said, "Without land, or with little land, the joint ["extended"] household is unstable."

The characteristics of these households is also influenced by persons not present therein. We have mentioned the daughters married out, but others may be away from the homestead because of their work, their education, or their marriages. Thus, a complete picture of the developmental cycle of the households in these villages requires data on the household head's brothers and sisters as well as the head's sons and daughters who are living elsewhere (whether in the same village or as outside migrants). Because this dimensions of the household developmental cycle relates specifically to the topic of migration, this discussion will be taken up in Chapter 6.

CHAPTER FIVE  
LAND ACQUISITION AND INHERITANCE

In this chapter we examine the dynamics of land acquisition and inheritance in Choto Kalampur and Jalsha Borohissa. We have already seen that land ownership and land use is at the heart of agricultural life in these communities. As Arthur and McNicoll have said, "Land, in a country with few other productive assets, bestows status, power, and above all security" (1978:35). For the villagers of Kalampur and Jalsha, as for millions of others in the Bangladesh countryside, land is certainly a basic source of food, a source of cash, and a form of capital savings and investment; but it also a long-term responsibility to one's immediate family and to one's heir in future generations.

OVERVIEW

This responsibility for the land is especially serious at a time when most village households have only a small amount of land at their disposal. The 1978 Land Occupancy Survey gathered data on landholding throughout Bangladesh. According to Cain (1983:156-157), the data collected through the LOS suggests that "28.8% of all rural households in Bangladesh owned no arable land, and of these 51% (14.7% of all households) own no land at all." Moreover, it appears that half of all rural households own less than fifty decimals (0.50 acres). In this regard, the

sample households from Kalampur and Jalsha may be slightly better off than the national norms.

How do people in Kalampur and Jalsha acquire their land? What do they do to keep, improve, or lose their holdings? And how does land pass from generation to generation? These questions are not only of interest to social scientists, agricultural development specialists, and government tax officials -- they are central issues of gossip, intrigue, and legal activities among the villagers themselves. As one enters Kalampur from the Aricha highway, one sees a group of a dozen or more scribes, hunched over their ancient typewriters, busy recording the dictation of their clients. More often than not, what is being typed is a document dealing with land. A lease, a mortgage, a sale, or a purchase of one or more plots -- these are the affairs of everyday life in the villages that mean that the difference between success or failure for one's family and their future.

Because land is so important and new land nonexistent, the history of specific plots of just a few decimals size can be related by many farmers. This awareness of land transactions made it relatively easy to gather information on land acquisitions in Kalampur and Jalsha.

In Tables 5.1 we present data on the main mechanisms by which villagers acquire and lose land. These mechanisms are inheritance, dowery, gift, purchase, and sale. Some of these land transaction mechanisms are tied to specific moments in the individual's life cycle and the developmental cycle of the household, while others may occur anytime when need or opportunity arises.

TABLE 5.1 LAND ACQUISITION -- KALAMPUR

ACQUISITION MECHANISMS						
FARM CLASS	HOUSE-HOLD #	INHERITED LAND (dec)	DOWRY LAND (dec)	GIFT LAND (dec)	LAND BOUGHT (dec)	LAND SOLD (dec)
Large	1	500	0	20	104	23
Large	2	391	0	0	78	0
Large	3	181	0	0	90	0
Large	5	378	0	0	0	0
Large	8	241	34	0	50	0
Large	10	303	0	0	0	15
Large	18	319	0	0	37	16
Large	20	259	0	52	0	0
SUBTOTAL		2,572	34	72	359	54
Small	4	52	0	170	0	52
Small	6	276	0	0	0	16
Small	7	257	0	0	0	15
Small	9	236	0	0	0	0
Small	11	0	0	0	170	26
Small	12	126	0	0	32	15
Small	13	0	150	0	0	0
Small	17	30	0	0	156	17
Small	19	224	0	0	0	0
Small	22	57	0	0	22	13
Small	24	176	0	0	0	98
Small	25	161	0	0	0	0
Small	30	86	0	0	26	46
SUBTOTAL		1,681	150	170	406	298
Marginal	14	31	0	0	0	0
Marginal	15	0	15	0	0	0
Marginal	16	47	0	0	0	4
Marginal	21	31	0	0	0	0
Marginal	23	4	0	0	52	0
Marginal	26	36	0	0	0	0
Marginal	27	15	0	0	0	0
Marginal	28	22	0	0	35	0
Marginal	29	0	15	0	0	13
Marginal	31	0	0	0	1	0
Marginal	32	3	0	0	0	0
Marginal	33	7	0	0	0	2
Marginal	34	13	0	2	0	2
SUBTOTAL		209	30	2	88	21
TOTAL		4,462	214	244	853	373

TABLE 5.2 LAND ACQUISITION -- JALSHA

ACQUISITION MECHANISMS

FARM CLASS	HOUSE-HOLD #	INHERITED LAND (dec)	DOWRY LAND (dec)	GIFT LAND (dec)	LAND BOUGHT (dec)	LAND SOLD (dec)
Large	1	415	0	0	364	91
Large	2	130	0	0	160	0
Large	3	191	0	0	77	0
SUBTOTAL		736	0	0	601	91
Small	4	216	0	0	0	26
Small	5	227	0	0	0	15
Small	6	102	0	0	0	0
Small	7	12	0	38	13	0
Small	9	291	0	0	0	123
Small	10	182	0	0	17	0
Small	11	94	0	0	33	0
Small	12	207	0	0	39	65
Small	14	124	0	0	57	18
Small	15	174	0	0	26	0
Small	17	58	0	0	14	0
Small	18	56	0	0	0	0
Small	19	29	0	0	91	0
Small	20	75	0	0	26	16
Small	21	175	0	0	10	10
Small	22	147	0	0	52	0
Small	25	51	0	0	52	46
Small	31	55	49	0	0	0
SUBTOTAL		2,275	49	38	430	319
Marginal	8	43	0	0	0	9
Marginal	13	143	0	0	0	91
Marginal	16	36	0	0	0	0
Marginal	23	3	0	0	0	0
Marginal	24	3	0	0	52	0
Marginal	26	19	0	0	0	0
Marginal	27	3	0	0	0	0
Marginal	28	11	0	0	4	0
Marginal	29	11	0	0	0	0
Marginal	30	47	0	0	0	0
Marginal	32	5	0	0	0	0
Marginal	33	136	0	0	0	78
Marginal	34	29	0	0	7	20
SUBTOTAL		488	0	0	63	198
TOTAL		3,499	49	38	1,094	608

Clearly, the primary mechanism for land acquisition is inheritance. The heads of Large farm class households generally have inherited more land than those of Small farm class households who in turn usually inherited more than those of Marginal farm class households. Nevertheless, inheritance is not the only way to get land. The next most common land acquisition mechanism is land purchase. We observe that buying land is especially prevalent among the Large and Small farm class households, whereas the Marginal farm class households have purchased very little. It is interesting to note that land buying seems to be more common in Jalsha than in Kalampur, but we have no ready explanation for this pattern. One possible explanation is that Kalampur, as a market town and small-scale commercial center on the main highway, offers other potentially more profitable arenas for investment than land alone.

Two other mechanisms -- dowery and gift -- for land acquisition are possible for the people of Kalampur and Jalsha. First, the custom of dowery involves the payment of money, luxury goods, or even land to a bridegroom at the time of a marriage. Presumably, if land were given it would be in the home village of the bride (unless her family bought land to subsequently give to the groom as dowery). In such circumstances, it is likely that the bride's brothers would become the managers of the land in behalf of their sister and her husband. Whatever, the circumstances involving dowery land, we see that it is rare in both Kalampur (four cases) and Jalsha (only a single instance).

The other side of dowery is known as brideprice, or "Mehr" in the local terminology, and involves payments from the man's

family to that of the bride. The custom of Mehr can involve prompt payments as well as deferred payments. According to Chaudhury and Ahmed (1980:26), "The amount of Mehr varies according to the social status of the girl's family. A high Mehr operates as a deterrent to unilateral divorce ... and so it can be regarded as if it were a prearranged sum of alimony." From the perspective of the male's family, Mehr could represent a loss of land if the woman involved demands her rights. Unfortunately, we have no data to indicate that a custom exists in either Kalampur or Jalsha of giving or reserving land as Mehr.

A related form of land acquisition involves the gift of land to someone, often on the occasion of marriage, but this appears to be rare in the sample communities. The household heads report only four cases in Kalampur and just one case in Jalsha.

For every land buyer there is a seller. The heads of the sample households have also been active in land sales. The data show that land selling is more common in Jalsha than in Kalampur, mainly because of the heavy sales by a few Marginal farm class households. It is also worth noting that most households involved with buying land have also been sellers as well.

It appears that farmers sell land reluctantly and usually because of a pressing financial need involving sums of money beyond what might be borrowed or obtained through other mechanisms. In Kalampur land has been sold to establish a mill, for education purposes, for marriage expenses, for medical expenses, to purchase a new homestead, to pay off a debt, and even to purchase a cart. In Jalsha, similar reasons were given for selling land, but were supplemented by the decision to sell

off old plots and buy new plots expected to be more productive. Also, it appears that in Jalsha some households chose to sell land to deal with ongoing family maintenance expenses.

In sum, the diverse mechanisms for acquiring and giving up land present an important domain for future research. The data obtained through the Land Use Survey suggest some of the ways in which the agriculturalists of Kalampur and Jalsha are involved in land at different times of their lives -- especially at the death of their fathers (inheritance) at marriage (dowery, mehr, or gift land), or at other critical moments such as when going off higher education, when a family member is seriously ill, or when a decision is made to shift occupations or even change homesteads.

#### LAND INHERITANCE

Because of the overwhelming importance of inheritance as a means of acquiring land, it is important to examine its features in more detail. In Bangladesh the rural people have a strong patrilineal system which, combined with the predominant Islamic religious practices, produces an inheritance system that favors males over females. In this section, we shall discuss the implications of the prevailing land inheritance system for the present and future of households in Kalampur and Jalsha.

An important feature associated with land and land use throughout the world is the extent to which inheritance patterns approximate the legal codes of a country -- the ideal form of behavior --and the extent to which inheritance patterns reflect a deviation from the norm--the real form of behavior. For purposes of this study, the practices followed in the inheritance of land

is important because it is conditioned by the migration patterns of men and women.

On inheritance, Chaudhury and Ahmed (1980: 23-24), paraphrasing from *Principles of Mohamedan Law* say:

A single daughter inherits half the estate of her late father or mother. If there is more than one daughter and no son, then the daughters jointly inherit two-thirds of the estate. However, if there is a son (or sons) then the daughter or each of the daughters inherits half of the son or each of the son's share. In the absence of a son, a daughter inherits the fixed share and the balance of the share of the estate is inherited by other agnatic relations such as brother or father of the deceased.

The wife inherits a fixed share of one eighth of deceased husband's estate, if he leaves any agnatic descendant. If the husband does not leave any agnatic descendants, then the wife inherits a fixed share of a quarter of the estate.

It is important to note that within the same family, men always inherit more than the women.

The people of Choto Kalampur and Jalsha Borohissa adhere in principle to the ideal of the laws just expressed. The functional reality of the practice of these laws in Kalampur and Jalsha, however, create a situation where women, although they technically inherit land from their father, it often remains in the working possession of brothers because of the prevalent

exogamous marriage pattern where brides go and live in the homestead of their husband. Land inherited by a woman technically belongs to her but it is more often than not "looked after" (i.e., worked) by her brothers. In some cases, the woman receives part of the yields harvested from her land by her brothers but in other cases, she effectively loses the land.

Another important factor conditioning the amount of land available to be worked by a single household is the extent to which males migrate from the village. If a man migrates from his village to another region of the country, his inherited land is usually left to be worked by his brothers. Just as when his sister leaves the village he may or may not receive part of the produce from the land although, but unlike his sister, he will probably never lose control of his land.

The codified law of the ideal and the practices of the real operate as the controls of inheritance in Kalampur and Jalsha. The significance of these controls are more noticeable and have the greatest effect on households, the village and the country as a whole because of the fragmenting effect they have on land.

Using the sample of the 34 households from Kalampur and the 34 households from Jalsha and the practices of land inheritance in these two villages, it is possible to predict what will happen to the land holdings of the next few generations.

Land inheritance patterns in Kalampur and Jalsha may be expressed as follows:

$$T$$
$$----- = X$$
$$S + D(.5)$$

In this situation, T is equal to total amount of land held by the household head (usually the father). S is equal to the number of sons by the household head and D is equal to the number of daughters of the household head. X is equal to the amount of land to be inherited by each son. It is important to remember that a daughter inherits one-half the amount a son inherits. This equation does not account for the inheritance of the spouse of the household head (usually a wife) because in the final analysis, it is unlikely a mother will outlive her adult children. In the event of a widower taking a young wife who outlives him, this equation would have to be changed to incorporate her entitlement to one-eighth of the land. Furthermore, the equation assumes that dowery land, gift land, land purchases, and land sales are not going to influence the present amount of land available for inheritance by a household head's children.

In Kalampur, Mr. A. Latif is the head of a Large farm class household who owns 449 decimals of land divided into 18 plots. He has three sons and one daughter. Assuming he has no more children, each of his sons can expect to inherit 128.3 decimals of land divided into 5.1 plots while his daughter can expect to inherit 64.1 decimals into 2.6 plots. (In reality, of course, the inheritance of .1 or .6 of a plot has no application and the actual distribution of the plots would be handled informally by the sons and daughter.) The results of this inheritance will reduce each son to a Small farm class household in one generation.

Assuming the same number of children in the next generation, each grandson of Mr. Latif can expect to inherit from their fathers 36.7 decimals divided into 1.5 plots. Each granddaughter can expect 18.3 decimals of land. She will receive only .7 of a plot -- i.e., not a complete plot -- thus forcing the grandchildren to further divide the plots. Therefore, Mr. Latif's grandsons will become heads of Marginal farm class households. In brief, in two generations, a prosperous family is reduced to a functionally landless household.

Mr. S. Quddus owns ten plots of land equaling 236 decimals. He has two sons and two daughters. On his death, each of his sons should inherit 3.3 plots of land equaling 78.7 decimals while his daughters each will receive 39.3 decimals of land consisting of 1.7 plots. Similarly, in the next generation, Mr. Quddus' grandsons can expect to inherit 1.1 plot totaling 26.2 decimals of land and his granddaughters will receive .6 plots at 3.1 decimals each. As in the case of Mr. Latif, Mr. Quddus and his family will have divided the land so many times through inheritance that they become effectively landless within two generations.

Mr. K. Kabir is a Marginal farm class household head who owns 36 decimals of land in four plots. He has three sons and four daughters. When the land is first divided through inheritance, each son receives .8 of a plot of 7.2 decimals (barely enough for a small homestead). Each daughter receives only .4 of a plot equaling 3.6 decimals. In the case of Mr. Kabir, who started with only a marginal amount of land, his family becomes effectively landless in only one generation.

A similar situation occurs in Jaleha. Mr. J. Khan, for example, is the head of a Large farm class household. He owns 688 decimals of land divided into 19 plots. He has three sons who can expect to inherit 152.9 decimals of land in 4.2 plots, and three daughters, who can expect to inherit 76.4 decimals of land divided into 2.1 plots. His sons will pass on land to their sons in the amount of .9 plots equaling 34 decimals each. The daughters each will receive 17 decimals of land divided into .5 plots. Even though Mr. Khan and his family had the security associated with owning relative large amounts of land, his grandchildren inherit the insecurity associated with owning small amounts of land.

Mr. M. Aziz has two sons and three daughters. He owns 200 decimals of land in 11 plots making him the head of Small farm class household. Although not a wealthy man, he is able to provide the basic necessities of life for his family. But upon his death, his sons will inherit only 57.3 decimals of land in 3.1 plots and his daughters only 28.6 decimals in 1.6 plots. It is unlikely that the sons of Mr. Aziz will be able to maintain a standard of living equal to their father on only 57.3 decimals of land. Mr. Aziz's grandsons can expect to inherit from their fathers only 16.3 decimals in .8 of a plot. The sisters of these men can expect to inherit only 8.2 decimals of land in a .4 plot. As a family, the Azizes, because of inheritance patterns, moved from a Small to a Marginal farm class household. By the second generation each son owns only 16.3 decimals of land --effectively reducing them to landless.

Mr. R. Habib is representative of the Marginal farm class in Jalsha. He owns only two plots totaling 47 decimals and has four children, three males and a female. Obviously Mr. Habib has very little land to leave his children. His sons can expect to inherit 13.4 decimals of land. Or, each son will receive only .6 of a plot which requires that each plot be even further divided. Each daughter can expect to inherit 6.7 decimals of land or .3 of a plot. In brief, it will take only one generation for the Habib family to become landless.

The above individual cases are representative of the families of Kalampur and Jalsha. These inheritance histories, as all inheritance histories in the two villages, are conditioned by (1) the amount of land inherited by the head of the household; (2) the amount of land acquired through dowery, gift, or purchase; (3) the amount of land sold; and (4) the number and sex of those children who are living at the time of the household head's death (or, rarely, the passing of the land to the heirs while the head is still alive).

Each of these factors in the equation influence the chances of children receiving land through inheritance. In particular, the farmer and his children have little real control over the number of male and female children who are born and who live to an age for receiving their inheritance. Thus, if a man has many sons, even though he may be a Large farmer, subsequent generations may become effectively landless in a relatively short period of time.

A similar scenario exists if the inheritance of land is aggregated by farm class for Kalampur and Jalsha. For example,

according to the data in the Land Use Survey, in Kalampur the average land holding of a Large farm class household is 358.3 decimals divided into 15.8 plots. In Jalsha, 437 decimals of land is the average holding of a Large farm class household. The average number of plots is 14.6. Based on traditional inheritance, as illustrated in the case histories presented above, a similar pattern of land fragmentation emerges in both villages. In one generation, Large farm class households can be expected to be reduced in land holdings to Small farm class households. By the second generation, the land holdings will be further reduced to the size of Marginal farm class households. In some cases, this means that the family becomes landless.

Small farm class households in Kalampur hold on average 99.7 decimals of land in 22.2 plots. In Jalsha, their counterparts own 132.4 decimals of land in 7.3 plots. The inheritors in the first descending generation receive only 32.9 decimals of land in Kalampur and 62.3 in Jalsha. In the next descending generation, the average inheritance for individuals in Kalampur is 11 decimals and in Jalsha it is 20.4 decimals, barely enough for a homestead alone.

In the case of Marginal farm class households, the average land holding in Kalampur is 15.2 decimals of land which is then reduced to 5.6 decimals in the next descending generation. In Jalsha, the average land holding is 17 decimals which is reduced to 8.1 in the first descending generation. In both Kalampur and Jalsha Marginal farm class households are reduced to a landless category by the second descending generation.

For further purposes of analysis, the data may be aggregated by village. In Kalampur the average land holding for all the sample households is 143.2 decimals divided into 8.5 plots while in Jalsha the average number of plots is 6.4 totaling 121.9 decimals of land. Using these averages to compare the sample households in the two villages, by the 2nd descending generation in Kalampur the households will have become Marginal farm class households while in Jalsha, although individuals will own less land, by the second descending generation they will remain in the class of Small farm class households. In the next generation, however, they too will be reduced to Marginal farm class households.

Land fragmentation by farm class and by village in Kalampur and Jalsha based on traditional inheritance patterns is illustrated in Tables 5.3 and 5.4.

TABLE 5.3  
PROJECTED LAND HOLDINGS OF FUTURE GENERATIONS  
BASED ON LEGAL PRINCIPLES BY FARM CLASS

	KALAMPUR		JALSHA	
	Av. No. Plots	Av. Amt. Land	Av. No. Plots	Av. Amt. Land
LARGE FARM				
Present Generation	15.8	358.3	14.6	437.0
1st Descending Generation	4.5	109.3	4.2	119.2
2nd Descending Generation	1.3	21.9	1.2	34.1

	KALAMPUR		JALSHA	
	Av. No. Plots	Av. Amt. Land	Av. No. Plots	Av. Amt. Land
SMALL FARM				
Present Generation	22.2	99.7	7.3	132.4
1st Descending Generation	7.4	32.9	2.9	62.3
2nd Descending Generation	2.4	11.0	1.2	20.4

	KALAMPUR		JALSHA	
	Av. No. Plots	Av. Amt. Land	Av. No. Plots	Av. Amt. Land
MARGINAL FARM				
Present Generation	1.5	15.2	2.5	17.0
1st Descending Generation	.5	5.6	1.0	8.1
2nd Descending Generation	-	-	-	-

Table 5.4  
 PROJECTED LAND HOLDINGS OF FUTURE GENERATIONS  
 BASED ON LEGAL PRINCIPLES BY VILLAGE

ALL FARM CLASSES	KALAMPUR		JALSHA	
	Av. No. Plots	Av. Amt. Land	Av. No. Plots	Av. Amt. Land
Present Generation	8.5	143.2	6.4	121.9
1st Descending Generation	2.8	47.7	4.2	81.2
2nd Descending Generation	0.9	15.9	2.8	54.1
3rd Descending Generation	0.3	5.3	1.8	36.1

## LAND FRAGMENTATION AND LAND CONSOLIDATION

It is important to note that these figures for potential land fragmentation are based on codified inheritance laws as expressed in Bangladesh. The data from the sample households in Kalampur and Jalsha clearly demonstrate a significant difference between ideal inheritance practices and real inheritance practices. The model suggests that in a maximum of three generations all households in the two villages -- regardless of present farm class -- will become effectively landless. In reality, this is not happening in Kalampur and Jalsha, because of the intervening effects of land purchases, sales, and to a much lesser degree doweries and gifts.

For example, Mr. A. Latif, whom we discussed earlier, inherited 371 decimals of land when he was 28 years old but had already increased his land holdings to 449 decimals just four years later when the Land Use Survey was conducted.

Similarly, his next door neighbor, Mr. M. Chowdhury, the 40-year old head of a Small farm class household, had increased his land holdings to 170 decimals at the time of the Land Use Survey from the 52 decimals that his father originally left him in 1956 when he was just twelve years old. He managed this by selling his inherited land and moving in with his father-in-law who gave him 170 decimals after he married.

In Kalampur 66% of the Large farm class households have increased their land holdings beyond what they had inherited from their fathers. Among Small farm class households 53% also increased their land holdings, as did 30% of the Marginal farm class households.

Among Large farm class households in Kalampur, the average number of decimals owned has increased 15% over what was inherited. The respective figure for Small farm class households is 50% and for Marginal farm class households is 13%.

In Jalsha Borohissa, there has been a parallel increase in the amount of land presently owned over the amount of land inherited. All three of the Large farm class households in the sample have increased their land holdings. Among Small farm class households, 65% have more land now than they inherited, whereas only 10% of the Marginal farm class households have increased their holdings.

The amount of land presently owned by the three Large farm class households in Jalsha has grown by 78% since inheritance. The Small farm class households now own an average of 23% more land than they inherited, but among Marginal farm class households, the increase is only 2%.

Overall, in both Kalampur and Jalsha, 50% of all households in the sample, regardless of farm class, have increased the amount of land presently owned over their inheritance. On the other hand, 50% of all households in the sample have either maintained or lost some of the land they inherited. With regard to the specific amount of land owned, there is only a slight difference between the two villages. In Kalampur there has been an average increase in the amount of land held by each household in the sample of 26%. In Jalsha the average increase in land held is 34%.

In Kalampur and Jalsha two opposing trends -- land fragmentation and land consolidation -- are revealed through the

Land Use Survey data. Although the general model of land inheritance suggests that, in two or three generations, all of the sample households would have become Marginal (if not landless), there are other forces at work, including land purchases, land sales, doweries, and gifts that affect the amount of land available for inheritance by the next generation.

Moreover, a comprehensive analysis of land acquisition and fragmentation should take into account the developmental cycle of the household (including the age of the household head, the ages of the male and female children eligible for inheritance, and the family's current socio-economic status). For instance, there are a few cases in which sample household heads have not inherited any land. This may mean that there is no land for them to inherit or it may mean that their father's have not yet died or given up their lands to their children. This, in turn, obviously influences their own children's chances for inheritance.

A potentially ominous implication of the data on land holdings, inheritance, and acquisition follows from the ability of Large farm class households to increase their share of the village lands. Since no "pioneer" lands are available for settlement in Kalampur or Jalsha, the current pattern of inequality in land holdings may worsen in future years. On the other hand, the Large farm class households have generally older heads and are farther along the developmental cycle than are the Small and Marginal farm class households. As a result, the Large farm class households may pass into the next inheritance phase when the Small and Large households in the sample are still able to work at expanding their holdings.

The complex relationship among the variables involved in this continuing transition in land holdings in Kalampur and Jalsha also must take into account the role of family members outside of the household itself. This brings us to the final component of our analysis of the farming systems in these two communities. In the next chapter we shall discuss in detail the circumstances of migration for Kalampur and Jalsha and then consider its implications for their farming systems.

## CHAPTER 6

### MIGRATION AND FARMING SYSTEMS

In this chapter we shall examine migration as the final component of our general framework for the analysis of farming systems in Choto Kalampur and Jalsha Borohissa. Because migration has been the object of many studies, few of which are directly concerned with agricultural problems, we shall begin the discussion with a brief review of the literature on migration in Asia. Then we shall discuss the data base for the study of migrants who have moved into and out of the two sample communities. At that point we can turn our attention to the patterns of movements found among the migrants, as well as their demographic and social-economic characteristics. An analysis of migration to and from the two villages in terms of farm class categories will give some perspective on the linkages between migration and farming systems. The chapter concludes with a few case histories for the migrants of Kalampur and Jalsha.

#### MIGRATION IN ASIA: A REVIEW

The impact of population growth and movement in developing countries is highly visible and has, in recent years, become a area of concern for development planners and politicians. The related literature is remarkable in terms of its extent and

diversity. For the purposes of this review, an emphasis has been placed on the Asian literature and it has been divided into several overlapping categories; characteristics of migrants, determinants of migration, patterns of population movement, consequences of migration, and migration and development.

#### CHARACTERISTICS OF MIGRANTS

The characteristics of migrants is a consideration which has long held the attention of migration researchers. The ages at which most migration takes place are 15-24 for males and 20-24 for females (Simmons et al. 1977). This circumstance has been explained as a response to employment opportunities, the tendency for young people to be eager for new experiences, dissatisfaction with the family situation, and a tradition of young males leaving home in search of cash for bride price (cf. Soon 1969; Prachuabmoh and Tirasawat, 1972; Wen Lang 1972). Sex is another characteristic which has received considerable attention from migration researchers. The general trend reflects a bias toward male migrants (cf. Eames 1969; Sternstein 1974). However, Pryor (1969), TURA (1976), and Ulack (1972) suggest that in the age cohort 15-19 years, there tends to be more female migrants. Fryor has further suggested that "females tend to predominate in short distance moves and in the later stages of development of a migration stream, while males tend to predominate in long distance and pioneering moves, and in the earlier stages of the development of a migration stream" (1969:65). Differences in migration patterns based on sex have constituted an important part of migration surveys, however, little attempt has been made to explain the relevance of sex differentials in terms of its

effects on birthrate, employment, social structure or land tenure.

Education and/or skill level is another variable which has been studied and contrary to expectations, education level is positively correlated to migratory tendencies. Greenwood (1971) and Connell et al. (1976) have demonstrated this tendency in India, while Prachuabmoh (1972) has shown similar results for Thailand and Malaysia. Prachuabmoh and Tirasawat (1972) have further shown that in Thailand, individuals of lower occupation levels tend to be less mobile. Similar findings have been found by Richards (1972) for India and Laquain (1972a 1972b) for the Philippines. Stoekel et al. (1972), Wen Lang (1972) and Visaria (1972) have demonstrated that movement of individuals is closely correlated with occupation. Bogue and Zachariah (1963), on the other hand, have emphasized the preponderance of migrants who are employed in low status jobs.

Kinship and ethnicity play a major role in migration patterning. Families perform a supportive role at both the place of origin and the place of destination in terms of information, housing, employment contacts and care for family members left behind (cf. Banerjee 1983; Bruner 1961; Eames, 1967; Simkins and Wernstedt 1971). Textor (1956) and Speare (1971) have demonstrated the role ethnicity plays in determining the social network of migrants at their destination.

#### DETERMINANTS OF MIGRATION

The literature regarding factors which account for migration can be subdivided into several categories. Economic influences may be structural, that is, the political economy of the country,

land distribution, agricultural productivity have major impacts on migratory behavior. Alternatively, intervention in terms of modern technology and the mechanization of agriculture, have resulted in unemployment and income differentials which are associated with migration. Non-economic influences include social change and conflict, ecological change, and population growth.

By viewing the world as an open system, it is necessary to consider the effects of the world economic system and international investment on migration in individual nations. Only a few authors have attempted an analysis of migration on this macro level (cf. Cummings 1974; Reforma 1972; Withington 1967).

Land distribution and agricultural production, on the other hand, have received considerable attention as structural determinants of migratory behavior. Population pressure, land ownership differentials, regional productivity and economic growth are all variables which have been discussed as determinant factors in the migration decision-making process. (cf. Castillo 1972; TURA 1976; Sicat 1972; Wertheim 1964).

The affects of modern technology, the mechanization of agriculture, and the Green Revolution have also been discussed extensively by migration scholars (cf. Castillo, 1972; Prachubmoh and Tirasawat 1972; Visaria 1972; Widjojo 1964). The interrelationship between economic opportunity, income differentials and migration has been emphasized. Pryor (1969) argues that:

The level of economic development of a country is integrally linked with the nature and magnitude of employment opportunities, and positive growth in these spheres is causally related to the initiation and development of migration patterns (Pryor 1969:74 quoted in Simmons et al. 1977).

Lewis (1954), Fei and Ranis (1961), and Kwok and Singh (1981) have discussed the positive correlation between employment opportunities, increasing wage differentials and migration. In the same vein, Harris and Todaro (1970) and Ohashi (1980) have demonstrated the effect of expected wealth differentials on migratory behavior as a mechanism for explaining continued migration to areas of high unemployment. Sjaastad (1962) has considered migratory behavior through cost-benefit analysis. Following this lead, a number of researchers have demonstrated not only the effects of wage differentials on promoting migration but also the existence of income thresholds below which migration is unlikely to take place (cf. DeVoretz 1972; Goldstein 1972; Greenwood, 1971; Mendoza-Pascual 1966; Padki 1964; Sternstein 1974; Speare 1971; Textor 1956). Alternatively, some studies show that poverty at the place of origin provided the impetus to migrate (cf. Gaur and Nepal 1962; Padki 1964). Often these two approaches are combined to produce a "push-pull" approach to migration which emphasizes the effects of "pull" on in-migration and "push" on out-migration (cf. Chaudhury, 1979 1983; Goldstein 1972; Sarkar 1980).

Recent interest in decision-making as a rational process has resulted in extensive research into both micro and macro aspects of migration decision-making (cf. Banerjee 1981; Brown and Saunders 1981; Choi 1981; De Jong and Gardener, 1981a 1981b; De Jong and Fawcett 1981; De Jong and Harbison 1981; Gardner 1981; Goodman 1981; Haberkorn, 1981; Indhapanya 1980; Mehta 1982; Ward 1981; Zablan, 1983).

Simmons et al. (1977) have suggested that non-economic influences on migration include social change and conflict, ecological change and population growth. Political conflict and rebellion has been discussed as a major influences on the migration patterns of Asia (cf. Goodman 1973; McNicoll, 1968; Sandhu 1964). Social conflict within the village has been considered by Dessaint (1971) as a contributing force in migration in Thailand. Similarly, Sripraphai and Sripraphai (1980) have considered the social, psychological and ecological effects of migration in a village in Thailand. Little research has been done, however, on the effects of political and ideological differences on migration choices.

Ecological change has been considered by Phillips (1959) and Wertheim (1964) in terms of soil changes due to human intervention. Simmons et al. (1977) have briefly mentioned the effects of defoliation and flooding. Soemarwoto (1981) has considered ecological effects in terms of carrying capacity.

Population pressure has been discussed as a major determinant of migration, however, few studies have actually defined population pressure or constructed methodologies which enable the researchers to measure and analyze it. (cf. Cunningham 1974;

Dessaint 1971; Gaur and Nepal 1962; Mendoza-Pascual 1966; Ulack 1972)

#### PATTERNS OF POPULATION MOVEMENT

A small number of studies have considered the patterns of population movement by mapping the location of origin and destination of migrants. This approach provides information concerning the physical location of people and the movement of population through time and space (cf. Dasgupta 1982; Hugo 1978; Fryor 1969). Often details of migration patterns are found included in more general studies, incorporated with information about other aspects of migration (cf. Effendi 1977; Kim 1982; Oberai 1979; Pernia 1979; Prasartkul 1977; Premi 1980; Tirasawat and Moir 1982).

Some studies, concerned with patterns of population movement, have addressed the issues of stage migration, in which migrants live first in smaller urban centers before finally moving into larger cities. Others have considered return migration and cyclical migration (cf. Choi 1984; Goldstein 1978; Goldstein and Goldstein 1980; Hansen 1979; Laquian 1982; Lee 1980; Mantra 1981; McGee 1971a 1971b; Prachuabmoh and Tirasawat 1972; Textor 1956).

#### CONSEQUENCES OF MIGRATION

Most of the early research stressed economic and social aspects of migration, especially as they applied to the migrants themselves. Simmons et al. (1977) after a careful consideration of the existing literature identified a need for research on the consequences of migration.

Although many articles detail the demographic characteristics of migrants, few of those reviewed carry the analysis a step

further to compare the "before" and "after" conditions in the place of origin...many of the same questions concerning the effects of migration on the place of origin can be posed for the place of destination...the research has generally been weak in providing answers on consequences at either end of the migration stream (Simmons et al. 1977:59-60).

Research concerning the impact of migration on place of origin included data about socio-cultural effects, especially in terms of fertility and modernization (cf. Goldstein 1971; Goldstein and Tirasawat 1972; Schnaiberg 1970), and economic effects, through remittances (cf. Gaur and Nepal 1962; Hart, 1971; Padki 1964; Visaria 1972).

Changes in the demographic profile and the effects of those changes on economic opportunities at the place of destination have been considered by Greenwood (1971), Mendoza-Pascual (1966), Bogue and Zachariah (1963), Simkins and Wernstedt (1971), Tangoantiang (1968), and Thomas and Block (1970). Fertility of migrants has been considered by Hendershot (1971), Goldstein (1971) and the psychological and social effects of dislocation on migrants has been studied by Speare (1971), Laquian (1972a, 1972b), McGee (1973), Stone (1973), Wertheim (1964), (1973), Wertheim (1964), and Withington (1967).

Recently, an extensive literature has developed in all of these areas. Comparative studies of the effects of migration on the differential fertility of migrants and non-migrants have been presented (cf. Abdullah 1978; Bach, 1981; Goldstein 1978a, 1978b; Goldstein and Goldstein 1981, 1983; Goldstein, Goldstein and Limaronda 1982; Harbison and Weishaar 1981; Hiday 1978; Magnani,

Hawley and Shuchman, 1979; Dey 1975; Stanhope, Prior and Harding 1981; Suyono, 1980; Tuladhar and Stoeckel 1982). Other researchers have used case materials to test hypotheses and models of reproductive response to migration (cf. Morada 1980; Pernia 1981; Singh, Yadava and Yadava 1981). Similarly, information on the consequences of remittances has increased dramatically (cf. Connell 1980; Easterlin 1980; Hadi 1982; Hugo, Graeme 1983; Lipton 1980; Oberai and Singh 1980a, 1980b 1981a; Potts 1981).

A macro approach to the consequences of migration has addressed the impact of population movement on society and the economy (cf. Eames 1969; Easterlin 1980; Goldscheider, 1984a; Hansen 1977 1979; McGee 1973, Padki 1964; Prayor, 1981; United Nations Report 1980 1981, 1982,). Similarly, a recent concern with the interaction of migration and development programming has resulted in a burgeoning of the literature in this area (cf. Ralan 1981; Easterlin 1980; Findley 1982; Fugitt 1979; Goldstein 1979 1983; Hansen, 1977; Jones and Richter 1981; Lim and Gosling 1979; Oberai and Singh 1981b; Padilla 1982; Prayor 1979; Rhoda 1980; Rogers and Williamson 1982; Tirasawat and Mercado 1982).

#### MIGRATION IN BANGLADESH

Information about population movement in Bangladesh tends to be of a more encyclopedic nature, usually found in volumes containing general information about the country and its people (cf. Alamgir 1982; Chowdhury, Aziz and Shaikh, 1969; United Nations report 1981). Stoeckel et al. (1972) have considered the migration patterns of Bangladeshi professionals and Khan (1982), Krishnan and Rowe (1980), and Obaidullah (1979) have traced

patterns of population movement primarily from rural to urban areas. Shamsuddin (1978) has provided information regarding characteristics of migrants and the effects of migration on industrialization and urbanization in Bangladesh's metropolitan centers. Chaudhury (1979) has considered population movement at the level of both the village and the individual, testing a number of hypotheses concerning the impact of "push" and "pull" factors.

#### RURAL-RURAL AND MARRIAGE MIGRATION

The bulk of migration literature is concerned with rural-urban migration. Only a few authors have considered the circumstances surrounding rural-rural population movements and this type of data is most often presented within the context of a more general discussion on migration (cf. Abeysekera 1984; Simkins and Wernstedt 1971; Tangoantiang, 1968; Thomas and Block; 1970 Wertheim 1964; Withington, 1967). Furthermore, most studies have emphasized male migration, although a few have considered sex differentials in migration patterning. Usually, however, female are not discussed as a distinct migrant group, rather they are considered vis-a-vis their male counterparts (cf. Eames 1969; Goldscheider 1984b; Kim 1972; Pryor 1969; Singh 1978; Ulack 1977). Raymundo (1982) and Piampiti (1982) have discussed female migration in terms of its effects on fertility and mortality, while Smith (1981) has considered the female component of the labor market in urban Indonesia and Thailand. Shah and Smith (1981) have presented cross-cultural census data comparing characteristics of migrant and non-migrant women in Indonesia, Korea, Malaysia, Pakistan and Thailand.

Very little literature exists concerning female marriage migration despite the suggestion by Connell et al. (1976) that "this is perhaps the most general (or at least the most constant) cause of migration from villages" (pp 49). Rose (1967) suggested that marriage migration was a primary component in Indian migration patterns. Libbee and Sopher (1972) have similarly argued that, for rural India, approximately 30% of rural women do not live in their natal villages. Furthermore, they have shown that the modal distance between natal and resident village is 20 Km. Dasgupta (1982) has discussed female marriage migration as a major category in his study of migration dynamics in India. Thadani and Todaro (1978) have argued that for females, marriage migration provides an alternative avenue to economic improvement, which is not available to males.

#### THE MIGRATION STUDY DATA BASE

In order to examine the role of migration in the farming systems of Kalampur and Jalsha, we had to carry out a multi-stage approach to data gathering. First, questions were included in the Household Survey to identify all siblings of the household head who resided outside of the household and to identify all children of the household head who resided outside of the household. Subsequently, an analysis of the residential location of these "outsiders" allowed the creation of a list of persons who could be classified as "out-migrants" for each village. In order to create the list of "in-migrants" it was only necessary to record the place of birth or origin of all persons canvassed in the Household Survey. In this manner, a master list was

constructed of persons who might be located and interviewed. This master list contained 46 in-migrants and 55 out-migrants for Kalampur and 48 in-migrants and 45 out-migrants for Jalsha. During more than one year of fieldwork, it was possible to locate and interview 44 in-migrants and 49 out-migrants for Kalampur and 44 in-migrants and 37 out-migrants for Jalsha. Each of the persons located was asked to respond to a lengthy Migration Survey. In effect, we gathered information on these migrants from themselves directly as well as from the head of the household with which they are affiliated either as siblings or children. Thus, data from both the Household Survey and the Migration Survey will be used in the analysis below.

#### MIGRATION PATTERNS

Migrants represent an important aspect of the "extended community" within which agriculturalists operate. Migration extends the families of the farming households throughout a potentially wide geographical space as well as over a long time period. Individuals move in and out of the farm households at different points in the developmental cycle of the household depending on their age, sex, and other characteristics. The pattern of the movements may influence farming systems directly or indirectly, especially insofar as they are involved or excluded from access to the land, control over its planting and harvesting, and benefit from the foods grown or cash surplus generated.

## THE SPATIAL DIMENSION

### KALAMPUR OUT-MIGRANTS

Among the 55 individuals identified as out-migrants from Kalampur, 62 moves had been made by the time of the Migration Survey. Clearly, nearly all individuals (87%) made only one migration move, while a few (8%) made two moves, and even fewer (6%) made three or more moves. What is interesting about the pattern of moves is that not all out-migrants started their migration careers in Kalampur. Although nearly all (88%) were born and raised in the village, some (12%) had come as out-migrants from elsewhere to live for a period in Kalampur and then subsequently moved out of Kalampur. Most of the moves made by the Kalampur out-migrants have been of relatively short distances and have been to other communities in the immediate Dhamrai Upazilla. Analysis of the migration flow shows that 77% of the moves are village to village and only 10% are village to city.

### JALSHA OUT-MIGRANTS

The 37 out-migrants from Jalsha had made a total of 55 moves by the time of the Migration Survey. Of this number, 89% were first-time moves and all of the first-time migrants originated in Jalsha. Most (73%) of the moves were within the Dhamrai Upazilla 19% were to other towns or villages beyond Dhamrai but still within Dhaka District, and 5% were to the environs of Dhaka city. About half (51%) of the moves were village to village, while 31% were village to small town, and 15% were village to city. Furthermore, the pattern of step migration in the case of Kalampur appears to be absent for Jalsha out-migrants.

#### KALAMPUR IN-MIGRANTS

Among the 44 in-migrants interviewed in Kalampur the total number of moves was 46. Of this number 9% were first-time moves and only 4% were second-moves. None of these individuals came from outside the boundaries of Dhaka District, and of these 84% came from villages in Dhaka District, 11% from within Dhamrai Upazilla, and at least one from Dhaka city. Nearly all (98%) of the moves among this in-migrant group were village to village.

#### JALSHA IN-MIGRANTS

The 44 in-migrants to Jalsha made a total of 53 moves, of which 86% were first-time moves. Only 7% were second moves and 7% third moves. Most of the moves were for relatively short distances. Eighty per cent of the first moves were from within Dhamrai Upazilla and 20% were from within the remaining sections of Dhaka District. Nearly all (91%) of the moves were made directly to Jalsha without intervening stages.

#### THE TEMPORAL DIMENSION

Given the age distribution of the populations of Kalampur and Jalsha, it would be surprising if many migrants had moved into or out of these communities in decades long past. In fact, among Kalampur out-migrants 27% of their moves occurred during the 1970s and 26% during the 1980s. For the Jalsha out-migrants 45% of their moves were made during the 1970s while 29% occurred in the first half of the 1980s. For Kalampur in-migrants 35% of their moves occurred during the decade of the 1970s, 17% during the 1950s and another 17% during the 1960s. For the Jalsha in-migrants 30% of their moves occurred during the 1970s and a similar percentage in the 1950s, with only 11% in the 1960s.

In summarizing the information regarding migration patterns, we may say that the migrants from both villages emphasize rural to rural movements, especially within the Dhamrai Upazilla and the Dhaka District boundaries, and that most of their moves have been in recent decades.

#### CHARACTERISTICS OF IN-MIGRANTS

In this section we shall briefly summarize the characteristics of the in-migrants to both Kalampur and Jalsha.

##### SEX

The in-migrants for both villages are predominantly females. For Kalampur 100% of the in-migrants are females and for Jalsha the figure is 92%.

##### AGE

The most common age cohort among the Kalampur and the Jalsha in-migrants is from age 11 to age 20. Seventy-two per cent of the Kalampur in-migrants fall into this cohort as do 87% of the Jalsha in-migrants.

##### MARITAL STATUS

Since most of the in-migrants were young females, it is not surprising that many were moving because of their marriages. This was true for 74% of the sample in Kalampur and 85% in Jalsha. On the other hand, the relatively small number of in-migrant males (all to Kalampur, incidentally) were unmarried at the time of their moves.

##### EDUCATIONAL LEVEL

About 11% of the in-migrants to Kalampur and about 17% of those to Jalsha might be called literate, since they had some formal education. Although these figures are not above the

national average literacy rate, they are competitive with those for the two village populations.

#### OCCUPATIONAL STATUS

At the time of their migrations, 74% of the Kalampur in-migrants and 100% of the Jalsha in-migrants were working as housewives. The few male in-migrants (all to Kalampur) were working in agriculture, daylabor, or were attending school.

#### SOCIAL DIMENSIONS OF MIGRATION

The in-migrants to both communities tended to go alone from their places of origin to Kalampur and Jalsha. In effect, the young women becoming wives were joining new families while leaving their parents' household behind. The continuing relationship with those households of origin is reflected in the number of visits made by these female migrants to their parents each year. Although some women visit their parents once a month, the most common pattern in Kalampur is one visit per year (28%) and in Jalsha twice a year (34%), and 13% of the Kalampur and 25% of the Jalsha in-migrants made no visits in the year prior to the Migration Survey. This pattern of home visits have been referred to in the literature on Bangladesh rural migration as "nair." According to Chaudhury and Ahmed (1980:27), a village woman "visits her parents usually once or twice a year.... Sometimes, she might stay for months at a time. Her husband does not accompany her on these visits; but he may go to see her. A rural married woman also looks forward to nair. To her it is a vacation. Furdah is more relaxed in a woman's parental home, she has greater mobility and no household chores."

## CHARACTERISTICS OF OUT-MIGRANTS

In this section we shall briefly summarize the characteristics of the out-migrants from both Kalampur and Jalsha.

### SEX

The out-migrants from both villages are predominantly females. For Kalampur 80% of the out-migrants are females and for Jalsha the figure is 76%.

### AGE

The most common age cohort among the Kalampur and the Jalsha out-migrants is from age 11 to age 20. Seventy per cent of the Kalampur out-migrants fall into this cohort as do 58% of the Jalsha out-migrants.

### MARITAL STATUS

Since most of the out-migrants were young females, it is not surprising that many were moving because of their marriages. This was true for 84% of the sample in Kalampur and 89% in Jalsha.

### EDUCATIONAL LEVEL

About 37% of the out-migrants from Kalampur and about 58% of those to Jalsha might be called literate, since they had some formal education. These figures are above the national average literacy rate, and suggest positive educational selectivity for the migrants leaving these two village populations.

### OCCUPATIONAL STATUS

At the time of their migrations, 82% of the Kalampur out-migrants and 93% of the Jalsha out-migrants were working. Since most of the out-migrants were females, the most common

occupation was that of housewife. The majority of the male migrants from Kalampur and Jalsha were employed in the services, although about 13% were without a job at the time of their migration.

#### SOCIAL DIMENSIONS OF MIGRATION

In Kalampur 72% of the out-migrants had no children at the time of their moves, 13% left their wives and children behind, and 15% took their families with them. In Jalsha the comparable figures 62%, 31%, and 7%. In only a few cases in Kalampur and none in Jalsha were the migrants accompanied by parents, siblings, or other relatives. The usual explanation given by the migrants for leaving their wives and/or families in the village was the lack of accommodations in the places of destination. At the time of their out-migration the families tended to be still relatively small -- there were three persons or less in about half of the Kalampur and Jalsha cases. It is interesting that about 25% of the fathers of the out-migrants had already died before the time of their moves. Of the fathers still alive at the time of their child's out-migration, most were in the age 41-50 cohort. Finally, regarding the question of home visits among the out-migrants, it appears to be a strong pattern. One third of the out-migrants from Kalampur report that they visit home about four times a year and some 45% of those from Jalsha also claim four visits per year. Thus, it appears that the out-migrants from both communities have retained somewhat stronger ties to their homes and families (patrilineal affiliations) than have the in-migrants to these same communities.

## MIGRATION AND FARM CLASS CATEGORIES

As we stated earlier, the characteristics of farm households depend on those who are present as well as on those who are no longer there to participate in the household endeavors. The Household Survey provided data for assessing the numbers of individuals who might have remained in the sample households but moved out -- some to other sections of the same villages and still others to different communities. In this section we offer an analysis of the situation of the three farm class categories with respect to outside siblings and outside children.

### SIBLINGS OF HOUSEHOLD HEADS

In Kalampur the 34 household heads in the sample had a total of 77 siblings (44 brothers and 33 sisters) who were living outside of the head's household at the time of the Household Survey. For the 34 households in Jalsha there were 66 siblings (29 brothers and 37 sisters) in similar circumstances. At the same time there were only two head's brothers and two head's sisters living within the sample households in Kalampur and there were only five head's brothers and just two head's sisters among the sample households in Jalsha. Nearly all of these outside siblings are married adults (87% in Kalampur and 94% in Jalsha).

Examination of the distribution of these siblings by destination reveals that in Kalampur 28 of the head's brothers live elsewhere within the community and 16 have migrated to another place, whereas only 3 of the head's sisters live elsewhere in the community while 30 have emigrated. For Jalsha the figures are comparable. Among the head's brothers, 23 are still in Jalsha while 6 have emigrated; among the head's sisters,

only 7 are in the village while 30 have left. Thus, for the generation of the siblings of the sample household heads, the traditional pattern of village exogamy was strong and the patrilineal and patrilocal biases in the rural society also tended to keep the males in their home villages.

When we examine these data in terms of farm class categories, as presented in Table 6.1, there are few noteworthy differences among the farm classes in the two villages. Women leave their natal communities while men simply create another household within the community in about the expected proportions for Large, Small, and even Marginal households. The only interesting deviations from this general scheme might be among the Marginal males in Kalampur, who leave a bit more than one might expect, and among the Marginal females in Jalsha, who remain in the community a bit more than one might expect. In both instances, however, the sample sizes are too small to permit meaningful statistical examination of these possible differences.

TABLE 6.1 OUTSIDE AND MIGRANT SIBLINGS OF  
HOUSEHOLD HEADS: KALAMPUR AND JALSHA

KALAMPUR					
FARM CLASS	BROTHERS LIVING IN VILLAGE	BROTHERS OUTSIDE VILLAGE	SISTERS LIVING IN VILLAGE	SISTERS OUTSIDE VILLAGE	TOTAL
LARGE	4	2	0	10	16
SMALL	9	3	2	6	20
MARGINAL	15	11	1	14	41
TOTALS	28	16	3	30	77

JALSHA					
FARM CLASS	BROTHERS LIVING IN VILLAGE	BROTHERS OUTSIDE VILLAGE	SISTERS LIVING IN VILLAGE	SISTERS OUTSIDE VILLAGE	TOTAL
LARGE	1	0	0	2	3
SMALL	10	3	1	18	32
MARGINAL	12	3	6	10	31
TOTALS	23	6	7	30	66

#### CHILDREN OF HOUSEHOLD HEADS

In Kalampur the 34 household heads in the sample had a total of 24 children (6 sons and 18 daughters) who were living outside of the head's household at the time of the Household Survey. For the 34 households in Jalsha there were 22 children (7 sons and 15 daughters) in similar circumstances. Almost all of these outside children were married; all 24 in Kalampur were married and 20 of the 22 in Jalsha were married (just two males were single). At the same time, there were 8 married sons (all with wives and children) as well as 3 married daughters (all without spouse or children) living within the sample households in Kalampur. In Jalsha there also were 8 married sons (all with wives and children) but no married daughters in the sample households.

Examination of the distribution of these children by destination reveals that in Kalampur 3 of the head's sons live elsewhere in the community and three have emigrated, whereas 5 of the head's daughters reside in Kalampur while 13 have emigrated. For Jalsha the figures are even more shifted away from the traditional pattern, although the sample sizes are rather small to judge the statistical significance of the distribution. There are 2 head's sons living elsewhere within the community and 5 who have emigrated, while 7 head's daughters live in Jalsha and 8 have emigrated. It appears that the traditional pattern of patrilocality and village exogamy -- still strong in the generation of the household heads and their siblings -- is possibly weakening in the generation of the household head's children.

When we examine these data in terms of farm classes, as presented in Table 6.2, there are no significant differences among the Large, Small, and Marginal categories. It does appear that perhaps the Marginal farm class households are overrepresented in regard to the proportion of their head's sons and daughters who are outside the household as well as outside the village, but because the cell sizes are small one must not dwell on the issue.

In order to get a better view of the situation of the generation of the children of the household heads, it is necessary to include in the discussion the rest of the heads' children -- i.e., those still at home and unmarried. In Kalampur, there are a total of 101 unmarried children (48 boys and 53 girls) and in Jalsha there are 88 unmarried children (43 boys and 35 girls). In the event that the traditional pattern of patrilocality and village exogamy is on the decline -- and certainly these children are likely to see the behavior of their older brothers and sisters as a reasonable model for their own decisions -- then one can anticipate that a substantial number of females are likely to be married within their own community in the next decade or so. At the same time, more men than in earlier years are likely to leave home as emigrants.

TABLE 6.2 OUTSIDE AND MIGRANT CHILDREN OF  
HOUSEHOLD HEADS: KALAMPUR AND JALSHA

KALAMPUR					
FARM CLASS	SONS LIVING IN VILLAGE	SONS OUTSIDE VILLAGE	DAUGHTERS LIVING IN VILLAGE	DAUGHTERS OUTSIDE VILLAGE	TOTAL
LARGE	0	0	1	6	7
SMALL	0	1	1	4	6
MARGINAL	3	2	3	3	11
TOTALS	3	3	5	13	24

JASHA					
FARM CLASS	SONS LIVING IN VILLAGE	SONS OUTSIDE VILLAGE	DAUGHTERS LIVING IN VILLAGE	DAUGHTERS OUTSIDE VILLAGE	TOTAL
LARGE	1	1	2	2	6
SMALL	0	0	4	3	7
MARGINAL	1	4	1	3	9
TOTALS	2	5	7	8	22

When we recall the discussion of inheritance patterns and land use (see Chapter 5), it should be clear that women who remain in their home communities are less likely than in earlier generations to entrust to their male relatives their share of inheritances and consequent food and cash surplus produced from those lands. Moreover, if they do make increased claims on their father's lands through inheritance, then it will likely reduce the average holdings for all family members within the generation. For instance, if just half of the unmarried girls in Kalampur sample households get married and remain in the community (as is the pattern in Jalsha already), then this might reduce the land holdings of their brothers who stay at home by about 25%. The only possible counterbalance to such a trend would be that the increased number of sons who leave the community would forego their claims to the land. And this seems unlikely.

In sum, the immediate future of farming in Kalampur and Jalsha is closely tied to the shifting demographic patterns revealed through migration flows into and beyond the communities.

#### MIGRATION CASE HISTORIES

MOZAFFAR HOSSAIN, age 31, was born in Haluapara village in Dhamrai Upazilla. He was one of four sons and six daughters of Mr. Zainal Abedin. He attended school up to the Primary VII class and then began agricultural work. At the age of 16 he went off to Shantinagar village in Mymensingh as hired agricultural labor. Subsequently he got a job as manager of an oil mill in Kalampur when he was 21. He has been living in Kalampur for the past ten years, where he has built a tin house and become

married. His income has now reached 600/- Taka per month.

All of Mozaffar's moves have been village to village and all were made when he was unmarried. During his time in Shantinagar he was unable to send money help to his family, but since coming to Kalampur he has been able to send about 150/- Taka per month to his father. He visits home once a year. After his father's death, he received a share of the land as an inheritance. He got 12 decimals of the 48 decimals that were divided among the four sons; none of the six daughters were given any land. Since all of the sons have emigrated from their home community, all 48 decimals are being managed by their uncle. According to Mozaffar, none of the sons or daughters receive any money or food from the land's production; the uncle keeps it.

ZOBEDA KHANAM, age 40, was born in Boan Bari village in Saturia Upazilla, under Dhaka District. Her father Zainuddin had five daughters and two sons. Zobeda, who never had any formal schooling, was married at age 12 and sent off to Ganggoutia village in Dhaka District. Her husband died when she was only 16 and so she went back to her father's house in Boan Bari. She was married off again at the age of 30 and moved to Jalsha to live with her second husband. Her father has died but she still maintains contact with her parental home, which she tries to visit two or three times each year.

All of her sisters have also been married and left the parental home to other villages in the Dhaka District. Both of her brothers are also married. Her two sisters-in-law have come from other District villages to be in Boan Bari. Her father owned

156 decimals of land which was divided evenly between the two brothers; all of the sisters were deprived of their share of the inheritance.

SALIMUDDIN, age 35, was born in Julsha as one of three sons and a daughter of Kosimuddin. He was in school long enough to receive a Secondary School Certificate. His first migration move took place when he was 22 years old, after he was already married and had one son. He took a job in the police service in Dhaka city. Because of inadequate accommodations for his family, he made the move alone. His wife and child stayed behind to keep watch over his property.

He has made a total of eight moves in the last 13 years. From Dhaka he was transferred to Rajshahi, then Chittagong, Rangamati, Mymensing, Jamalpur, Sherpur, and finally Nalitabari. He and his wife and children (now numbering two sons and a daughter) have been able to live together during his time in Sherpur and in Nalitabari. He continues to visit Julsha four or five times per year.

While a member of the police force his income has risen steadily from an initial 140/- Taka per month to about 1500/-Taka per month. Although he could not afford to send money home during his first two moves, since then he has sent from 200 to 300 taka monthly for their maintenance. Now that his wife and children have migrated to be with him, and his father and mother have died, he sends only 100 taka monthly to his brothers to pay them for managing his share of the land. His parents had owned 168 decimals which was divided evenly among the three sons (the

daughter was excluded). Thus, Salimuddin owns 56 decimals which is looked after by his nephew (sister's son). He has five plots altogether: one from his father of 7 decimals and four from his mother (totaling 49 decimals). He receives 50% of the crop without any cost other than what he sends monthly to help with management. Usually, he receives about thirteen maunds of rice and some other crops.

NURJAHAN, age 50, was born in Nalai village in Dhamrai Upazilla. Her father had married her mother, Jaigon Bibi, in Manikganj without his parents' consent and then kept the marriage a secret. Nurjahan was born after her parents had been married for three years. Soon thereafter, her father's father discovered the secret marriage and disowned his son and denied her as a member of the family. Nurjahan was taken by her mother to her mother's parents' house, but they were refused. So, mother and daughter went off to Dhaka where they lived in a slum in Ray Bazaar near Sat Masjeed. Jaigon Bibi took part-time work at several houses. They lived there for seven years, and then Nurjahan herself was sent to work as a domestic. She worked in this manner for two years until her mother took ill and went home -- finally dying two years later when Nurjahan was only 11 years old.

Nurjahan never had any formal education, but she managed to learn to sign her name from the children in the houses where she labored. She was very clever and picked up much useful knowledge from the children in the houses.

Once she went to visit her aunt in Jalsha. A friend of her aunt saw her and soon after sent a proposal of marriage in behalf of her son Akali. So, they were married and Nurjahan moved from Dhaka to Jalsha at the age of 18 (when Akali was 28).

Akali was just a day laborer, but he also had 65 decimals of land. There were five persons in the family at that time, including the parents, two daughters, and a sister. Ever since Nurjahan arrived in the Jalsha household, they have had an improving economic situation in their view. They have had better field crops and the cow gave birth to a calf. Thus, Nurjahan was considered "lucky" and her in-laws started loving her. She became very happy in Jalsha. She would do the household work, help her husband in various agricultural chores, and also planted the vegetable garden at the homestead. She also knew some handicrafts and was able to find time to make some items to sell in the market through her husband. Thus, she made and saved some money. From these small funds she bought chickens and created a tiny poultry farm in the homestead. She even helped her husband to purchase 20 decimals of land with her savings ---title to which was placed in her husband's name.

Unfortunately, she bore three children but none survived infancy. So her husband decided -- after 20 years of marriage to Nurjahan -- that he should take a second wife. Now Nurjahan is not happy anymore. The second wife has had three children by her husband and Nurjahan looks after them as part of her duties. But her husband does not come to her any more. Now she does not work as hard as before nor does she try to earn money as in the past. As a result her family is going through hardship.

## CHAPTER SEVEN

### SUMMARY

The analysis of agriculture in Bangladesh presented in this report extends the focus of "Farming Systems" approaches to encompass not just the farmer (i.e., usually the male household head) but also the relevant life experiences of all members of farming families. This brings a broader spatial framework as well as a longer time perspective to research on agriculture.

Thus, the present study is not concerned with farming systems narrowly defined, but deals with what we call farming systems and the "extended community." This community is extended both in time and space, not only through the farmer's life but beyond --to encompass generations before and after -- as well as across the geographical areas within which the farmer and members of his family live. We hope to have demonstrated that the temporal and spatial dimensions of farming systems are best understood in this "extended" context. Farmers' decisions about working the land depend on such characteristics as household composition, inheritance, and migration -- none of which are usually part of farming systems approaches to agricultural development.

Just as a careful analysis of agricultural fields shows seasonal and yearly cycles in crops planted and harvested, so too with farm households. The labor resources represented by a farmer and his family depend on the composition of the household

at a given moment. within the "developmental cycle of the domestic group," even though most agricultural researchers have tended to treat the family as a relatively static social unit.

In the present study, a particular emphasis has been placed on the problem of migration. Since migration involves the movement of people in space and in time, it provides the investigator interested in agricultural issues with a convenient and sensitive mechanism for examining the transformations of rural households. Furthermore, analysis of domestic development cycles in the context of migration brings into play the problem of inheritance and land use for the present and the future generation of farmers in Bangladesh. The farming system in rural communities consists not only of people working the land in the present, but reflects the consequences of actions in the past and limits options for the future.

Inheritance is closely tied to migration since women who marry out and others who migrate for educational or work purposes must deal with their share (actual or potential) of the inheritance from their parents. Because land fragmentation can result from observance of Islamic and governmental laws, agriculturalists are faced with serious decisions regarding disposition of their property among sons and daughters. In this context, the problem of land "management" becomes important in order to keep family plots productive. Some families may become landless while others gain lands from generation to generation in village situations where no new lands are available for cultivation.

Thus, land use in the rural sector can be seen as resulting from certain combinations of agricultural practices, economic constraints and opportunities, and social customs such as inheritance and migration. Who has how much land, where it is located, and how it is used depends on familial history and resources as well as the quality of seed, availability of fertilizers and irrigation, and the general environmental conditions such as drought or flood.

#### FARM CLASS CATEGORIES

In the present study we have followed common practice (Wallace 1984) by dividing agriculturalists into "classes" according to the total amount of agricultural land owned. For our purposes we divide farming households into three classes: Marginal, Small, and Large. Households with little or no agricultural land (i.e., between 0 and 49 decimals or 0.0 and 0.49 acres) are labeled "Marginal"; those with more substantial holdings (i.e., between 50 and 249 decimals or 0.5 and 2.49 acres) are called "Small," and those with even greater holdings (i.e., over 250 decimals or 2.5 acres) are called "Large."

#### FRAMEWORK FOR ANALYSIS OF FARMING SYSTEMS

The major components of a comprehensive framework include: Population, Household, Migration, Land Acquisition, Land Ownership and Tenancy, Agriculture, and Farm Class.

In general, we suggest that the Population component is the point with which to begin analysis. Data on individuals can then be merged into a higher level of analysis associated with the Households component. The Migration component influences the composition of the population and households. The Land

Acquisition component deals with who obtains how much land through what mechanisms. The Land Ownership and Tenancy component involves the control over land by individuals as manifested throughout their families and households. The Agriculture component combines the environmental, technological, and human labor inputs with production outputs. Finally, the Farm Class component divides the agriculturalists into three categories ---Marginal, Small, and Large -- on the basis of the total amount of agricultural land owned.

#### THE RESEARCH PROJECT

The present project developed from a concern for a better understanding of the relationship between rural population movements and agricultural development. By building on previous research in two villages -- Choto Kalampur and Jalsha Boro Hissa -- in Dhamrai Upazilla under Dhaka District where previous farming systems and social anthropological research has been carried out, it was the aim of the current project to study in depth certain factors which had not received sufficient attention. In particular, we wished to examine the problems of land fragmentation and land inheritance as these were related to migration. An initial operating hypothesis of the research project focused on the linkage of marriage patterns (specifically, village exogamy and patrilocal residence) and the variability of land holdings between men and women. The approach to this problem has involved a detailed consideration of individual and household variables within a cross-sectional survey of sample households in the two villages.

## FIELD RESEARCH

Field research began in the summer 1984 and continued through 1985. It was determined that a series of survey questionnaires would be used to acquire the data needed for analysis of the relationships among the principal components of the framework described above. The research team designed, pre-tested, and administered three major survey questionnaires as part of this project: (a) Household Survey; (b) Migration Survey; and (c) Land Use Survey.

The Household Survey was administered to the household heads of 34 sample households in Kalampur and 34 sample households in Jalsha. These households were selected because they were the same as those used in the earlier project on "The Role of Rural Women in Technology Adoption."

The Migration Survey was designed to be administered to both in-migrants and out-migrants from the sample households in the two communities. The potential migrant interviewees were initially identified from the persons listed on the population census section of the Household Survey. In Kalampur, a total of 46 in-migrants and 49 out-migrants were located and interviewed; in Jalsha, 44 in-migrants and 37 out-migrants were done.

The Land Use Survey was administered to all 34 sample households in both Kalampur and in Jalsha. It was intended to provide plot-wise and season-wise data on crops, seeds, fertilizers, pesticides, and other aspects of agricultural inputs and production for the sample households.

## POPULATION

According to a 1973 census, there were approximately 1800

individuals living in 351 households in Kalampur and about 1500 individuals in 203 households in Jalsha. It appears that the populations of both communities have continued to grow, but no complete enumeration has been carried out in the past decade.

Our sample survey of 34 households in each community suggests that the typical household in Kalampur contains 6.3 persons while that in Jalsha has 5.5. The average age for the two sample populations was almost identical -- 22.6 years old for the former and 22.9 for the latter. Of those surveyed in Kalampur, 54.4% are reported to be unmarried, 41.9% married, 3.3% widowed, and 0.5% divorced. The parallel figures for Jalsha are 50.0% unmarried, 45.2% married, and 4.8% widowed (and none divorced). These data suggest that similar demographic processes are at work in both communities.

Only 75.8% of our Kalampur sample population was born there; for Jalsha the figure is 75.3%. Indeed, the people surveyed in Kalampur and Jalsha represent more than 30 different villages within the Dhamrai Upazilla, as well as several located in nearby Upazillas. If we assume that the proportion of people surveyed who were born elsewhere -- in nearly all cases women who come or go because of marriage arrangements -- approximates the numbers who will in turn depart Kalampur and Jalsha, then about half of each population would reside outside the two sample communities during their lifetimes.

#### EDUCATION

While 74.0% of all adults in the Kalampur sample population were classified as illiterate, 21.3% had some formal schooling up through Primary (Level 8), and 4.7% had gone to high school or

beyond. For Jalsha, 65.8% of the adult sample is reported to be illiterate, 25.8% had some formal schooling up through Primary (Level 8), and 8.3% had gone to High School or beyond.

#### ECONOMIC ACTIVITIES

The primary occupation of 70% of the heads of household in Kalampur and 76% of the heads of household in Jalsha involves agriculture, i.e., they regularly farm land that they own, rent, and/or sharecrop.

#### LAND OWNERSHIP

A typical farm household in Kalampur owns a total of 162 decimals of land spread among nearly nine plots in different parts of the village (and even beyond), with a largest plot of about 32 decimals and a smallest plot of about nine decimals. For the typical farm household, 145 decimals is devoted to agricultural purposes and the remaining 17 decimals to the homestead and other non-agricultural activities.

In Jalsha the typical farm household owns about 122 decimals of land spread among six plots, with the largest having about 33 decimals and the smallest seven. The typical Jalsha farm household devotes 110 decimals to agricultural purposes and the remaining twelve to the homestead and other purposes.

On average, Marginal farm class households in Kalampur own 24.7 decimals of land, Small farm class households 170.8 decimals, and Large farm class households 370.4 decimals. Marginal farm class households have an average of 2.2 plots, with a range from one to ten plots, Small farm class households 8.4 plots, with a range from 5 to 17 plots, and Large farm class households 18.5 plots of land, with a range from 9 to 36 plots.

The smallest single plot in Kalampur contains just a single decimal of land, while the largest is 98 decimals.

In Jalsha, Marginal farm class households own an average of 23 decimals of land, Small farm class households 141 decimals, and Large farm class households 437 decimals. Marginal farm class households have an average of 2.2 plots, with a range from one to four plots, Small farm class households 7.4 plots, with a range from two to fourteen, and Large farm class households 13 plots, with a range from eleven to fifteen. The smallest single plot in Jalsha has just a single decimal of land, while the largest is 100 decimals.

In Kalampur 23 households are reported to be Owners, six are Owner cum tenant, and five are Landless. In Jalsha 18 are Owners, nine are Owner cum tentant, three are Landless tenants, and four are Landless. This suggests that our "farm class" system is an effective way of examining economic stratification in both communities.

#### TENANCY ARRANGEMENTS

Farmers do not work only the plots they own. A given agricultural household is likely to be involved in a wide array of tenancy arrangements, some based on ownership, others on sharecropping, leasing-in and leasing-out, renting-in and renting-out, and mortgaging-in and mortgaging-out. Marginal, Small, and Large farm class households are effectively tied together by a web of economic and social relationships reflected in the tenancy rights and obligations to specific plots of land spread throughout and beyond the village.

Every arrangement has two sides. Those without land or with

very little land effectively become the clients of the farmers with larger holdings. This system of agricultural client-patronage offers all participants the option to spread their obligations and responsibilities or to place most or all of them with a single partner. Through such arrangements, farmers can commit themselves and their households to a series of commitments during the year (or season) with different patrons. Alternatively, they can focus their efforts on a single patron who is willing to risk the client's capability to make good on the deal.

These two tenancy strategies can be called "diversified" and "unified." Logically, in the most extreme form of the "unified" strategy a farmer uses only those plots he owns himself. In theory, both strategies can be found among all farmers -- from the landless to the wealthiest.

#### PLOT USE

The pattern of plot use (for the Aus season) is similar in both villages. In Kalampur 79% of the plots are used by their owners and 21% are in "mixed" use; in Jalsha 83% are used by their owners and 17% are in "mixed" used (in this context "mixed" includes all types of sharecropping, leasing, renting, and mortgaging). Analysis of the distribution according to farm class categories shows that both villages have the same profiles: for Large farm class households, 29% of the plots are "mixed" in Kalampur and 25% are "mixed" in Jalsha; for Small farm class households, the figure is 13% in both communities; and for Marginal farm class households, the figures are 24% in Kalampur and 26% in Jalsha. Also, we see that 10 of the 34 households in

Kalampur are involved in "mixed" use arrangements, whereas 16 of the 34 in Jalsha are involved.

A more detailed analysis of the "mixed" category shows that the Large farm class households rent out plots (15 in Kalampur and 4 in Jalsha), but rent in none; they sharecrop out plots (11 and 2, respectively), but sharecrop in none; they neither mortgage plots in or out (note: another 16 plots belonging to Large farm class households can not be specified regarding their use except as "mixed.")

Small farm class households rent out (3 in Kalampur and 3 in Jalsha) and rent in (1 and 1, respectively); they sharecrop out (5 and 6, respectively), and sharecrop in (6 and 7, respectively); one household in Jalsha even mortgages out one plot.

Marginal farm class households do little renting out (none in Kalampur and 3 in Jalsha) or renting in (just one plot in Jalsha); they also do relatively little sharecropping in (none in Kalampur and four in Jalsha) or sharecropping out (9 plots, all from a single farmer, in Kalampur and just one plot in Jalsha). They are not involving in mortgaging land.

It appears that both villages share common patterns in terms of the proportion of plots operated by owners versus tenants. The proportion is about four to one -- in other words, about 20% of all plots in the sample are not owner-operated.

Furthermore, it appears that the greater amount of non-agricultural work opportunities in Kalampur gives the Marginal (especially, the landless) farm class households other economic options than renting or sharecropping plots. By

comparison, Jalsha seems to have more of the expected participation in such client arrangements among its Marginal farm class households.

#### HOUSEHOLD MEMBERSHIP CHARACTERISTICS

In Kalampur the smallest of the households contains two persons and the largest fifteen, with an average size of 6.3 persons. The households in Jalsha have an average size of 5.5 and a range from two to ten persons. Examination of the data in terms of farm class shows some important differences in household size for the Marginal, Small, and Large categories. The average household size for Kalampur is 4.9, 7.1, and 7.4 and for Jalsha is 4.8, 5.5, and 8.8, respectively for the three categories.

The Marginal households are similar in both villages, whereas the Small and Large households in Jalsha and Kalampur differ. The Marginal households in Kalampur and Jalsha have similar land holdings per household (24.7 and 23.1 decimals, respectively) and per capita (5.0 and 4.9 decimals, respectively). The average holdings for the Small households in Jalsha is somewhat lower than that for Kalampur (141.0 and 107.8 decimals, respectively), but the per capita figures are similar (24.1 and 25.6 decimals, respectively) for Small households in each village. Even the apparent differences in the average land holdings for Large households (370.4 decimals for Kalampur and 437.0 for Jalsha) disappears when analyzed per capita (50.2 and 52.4 decimals, respectively). In effect, the number of persons in the sample households in both villages matches very closely the total amount of agricultural land owned for each of the three farm class categories.

### RESIDENTIAL CHARACTERISTICS

Analysis of residential form by farm class categories shows an important pattern. For Kalampur, there are no extended households among the Marginal category, six among the Small category, and four among the Large category. For Jalsha, the respective figures are one for Marginal, six for Small, and two for Large. Obviously, the somewhat smaller family sizes found among the Marginal households in both communities also reduce their chances of having two or more married couples present. By way of contrast, the Small and Large farm class households are about evenly divided between nuclear and extended residential forms. This relationship emerges not only at the household level but also in regard to the individuals forming the living groups. For Kalampur 60.9% live in nuclear households while 39.1% live in extended households. The respective figures for Jalsha are 62.9% and 37.1%.

### DEVELOPMENTAL CYCLE CHARACTERISTICS

The developmental cycle of rural agricultural households in Bangladesh involves a dialectical process of expansion and reduction through approximately seven distinctive phases during the lifespan of a given individual. Over time, one would expect that the longer lifespans of females would result in more women living as widows in households controlled by their male relatives.

There are many variations on the basic nuclear and extended household types in the two villages. Indeed, analysis of household composition for Kalampur reveals 2 "sub-nuclear" households; 15 simple "nuclear" households; 12 "complex nuclear"

households; and 5 "extended" households. For Jalsha, there is a single "sub-nuclear" household; 17 simple "nuclear" households; 7 "complex nuclear" households; and 8 "extended" households.

The differences in household composition among the three farm class categories are quite clear. Marginal households are not only the smallest but have the most rudimentary household types in both Kalampur and Jalsha. The Small and Large households have more members and show more variations on the themes of "complex nuclear" and "extended" types.

#### LAND ACQUISITION AND INHERITANCE

The main mechanisms by which villagers acquire and lose land are inheritance, dowery, gift, purchase, and sale. Some of these land transaction mechanisms are tied to specific moments in the individual's life cycle and the developmental cycle of the household, while others may occur anytime when need or opportunity arises.

Clearly, the primary mechanism for land acquisition is inheritance. The heads of Large farm class households generally have inherited more land than those of Small farm class households who in turn usually inherited more than those of Marginal farm class households. Nevertheless, inheritance is not the only way to get land. The next most common land acquisition mechanism is land purchase. We observe that buying land is especially prevalent among the Large and Small farm class households, whereas the Marginal farm class households have purchased very little. It is interesting to note that land buying seems to be more common in Jalsha than in Kalampur. One possible explanation is that Kalampur, as a market town and

small-scale commercial center on the main highway, offers other potentially more profitable arenas for investment than land alone.

#### LAND FRAGMENTATION AND LAND CONSOLIDATION

The data from the sample households in Kalampur and Jalsha clearly demonstrate a significant difference between ideal inheritance practices and real inheritance practices. The model of inheritance derived from observance of Muslim legal codes suggests that in a maximum of three generations all households in the two villages -- regardless of present farm class -- will become effectively landless. In reality, this is not happening in Kalampur and Jalsha, because of the intervening effects of land purchases, sales, and to a much lesser degree doweries and gifts.

In fact, in Kalampur 66% of the Large farm class households have increased their land holdings beyond what they had inherited from their fathers. Among Small farm class households 53% also increased their land holdings, as did 30% of the Marginal farm class households.

Among Large farm class households in Kalampur, the average number of decimals owned has increased 15% over what was inherited. The respective figure for Small farm class households is 50% and for Marginal farm class households is 13%.

In Jalsha there has been a parallel increase in the amount of land presently owned over the amount of land inherited. All three of the Large farm class households in the sample have increased their land holdings. Among Small farm class households, 65% have more land now than they inherited, whereas

only 10% of the Marginal farm class households have increased their holdings.

The amount of land presently owned by the three Large farm class households in Jalsha has grown by 78% since inheritance. The Small farm class households now own an average of 23% more land than they inherited, but among Marginal farm class households, the increase is only 2%.

Overall, in both Kalampur and Jalsha, 50% of all households in the sample, regardless of farm class, have increased the amount of land presently owned over their inheritance. On the other hand, 50% of all households in the sample have either maintained or lost some of the land they inherited. With regard to the specific amount of land owned, there is only a slight difference between the two villages. In Kalampur there has been an average increase in the amount of land held by each household in the sample of 26%. In Jalsha the average increase in land held is 34%.

In Kalampur and Jalsha two opposing trends -- land fragmentation and land consolidation -- are revealed through the Land Use Survey data. Although the general model of land inheritance suggests that, in two or three generations, all of the sample households would have become Marginal (if not landless), there are other forces at work, including land purchases, land sales, doweries, and gifts that affect the amount of land available for inheritance by the next generation.

#### MIGRATION PATTERNS

Migrants represent an important aspect of the "extended community" within which agriculturalists operate. Migration

extends the families of the farming households throughout a potentially wide geographical space as well as over a long time period. Individuals move in and out of the farm households at different points in the developmental cycle of the household depending on their age, sex, and other characteristics. The pattern of the movements may influence farming systems directly or indirectly, especially insofar as they are involved or excluded from access to the land, control over its planting and harvesting, and benefit from the foods grown or cash surplus generated.

#### THE SPATIAL DIMENSION

##### KALAMPUR OUT-MIGRANTS

Among the 55 individuals identified as out-migrants from Kalampur, 62 moves had been made by the time of the Migration Survey. Clearly, nearly all individuals (87%) made only one migration move, while a few (8%) made two moves, and even fewer (6%) made three or more moves. Most of the moves made by the Kalampur out-migrants have been of relatively short distances and have been to other communities in the immediate Dhamrai Upazilla. Analysis of the migration flow shows that 77% of the moves are village to village and only 10% are village to city.

##### JALSHA OUT-MIGRANTS

The 37 out-migrants from Jalsha had made a total of 55 moves by the time of the Migration Survey. Of this number, 89% were first-time moves and all of the first-time migrants originated in Jalsha. Most (73%) of the moves were within the Dhamrai Upazilla 19% were to other towns or villages beyond Dhamrai but still within Dhaka District, and 5% were to the environs of Dhaka city.

About half (51%) of the moves were village to village, while 31% were village to small town, and 15% were village to city.

#### KALAMPUR IN-MIGRANTS

Among the 44 in-migrants interviewed in Kalampur the total number of moves was 46. Of this number 9% were first-time moves and only 4% were second-moves. None of these individuals came from outside the boundaries of Dhaka District, and of these 84% came from villages in Dhaka District, 11% from within Dhamrai Upazilla, and at least one from Dhaka city. Nearly all (98%) of the moves among this in-migrant group were village to village.

#### JALSHA IN-MIGRANTS

The 44 in-migrants to Jalsha made a total of 53 moves, of which 86% were first-time moves. Most of the moves were for relatively short distances. Eighty per cent of the first moves were from within Dhamrai Upazilla and 20% were from within the remaining sections of Dhaka District.

#### CHARACTERISTICS OF IN-MIGRANTS

The in-migrants for both villages are predominantly females. For Kalampur 100% of the in-migrants are females and for Jalsha the figure is 82%. The most common age cohort among the Kalampur and the Jalsha in-migrants is from age 11 to age 20. Seventy-two per cent of the Kalampur in-migrants fall into this cohort as do 87% of the Jalsha in-migrants. Since most of the in-migrants were young females, it is not surprising that many were moving because of their marriages. This was true for 74% of the sample in Kalampur and 85% in Jalsha. On the other hand, the relatively small number of in-migrant males (all to Kalampur, incidentally) were unmarried at the time of their moves.

## CHARACTERISTICS OF OUT-MIGRANTS

The out-migrants from both villages are predominantly females. For Kalampur 80% of the out-migrants are females and for Jalsha the figure is 76%. The most common age cohort among the Kalampur and the Jalsha out-migrants is from age 11 to age 20. Seventy per cent of the Kalampur out-migrants fall into this cohort as do 58% of the Jalsha out-migrants. Since most of the out-migrants were young females, it is not surprising that many were moving because of their marriages. This was true for 84% of the sample in Kalampur and 89% in Jalsha.

## SIBLINGS OF HOUSEHOLD HEADS

In Kalampur the 34 household heads in the sample had a total of 77 siblings (44 brothers and 33 sisters) who were living outside of the head's household at the time of the Household Survey. For the 34 households in Jalsha there were 66 siblings (29 brothers and 37 sisters) in similar circumstances. At the same time there were only two head's brothers and two head's sisters living within the sample households in Kalampur and there were only five head's brothers and just two head's sisters among the sample households in Jalsha. Nearly all of these outside siblings are married adults (87% in Kalampur and 94% in Jalsha).

Examination of the distribution of these siblings by destination reveals that in Kalampur 28 of the head's brothers live elsewhere within the community and 16 have migrated to another place, whereas only 3 of the head's sisters live elsewhere in the community while 30 have emigrated. For Jalsha the figures are comparable. Among the head's brothers, 23 are still in Jalsha while 6 have emigrated; among the head's sisters,

only 7 are in the village while 30 have left. Thus, for the generation of the siblings of the sample household heads, the traditional pattern of village exogamy was strong and the patrilineal and patrilocal biases in the rural society also tended to keep the males in their home villages.

#### CHILDREN OF HOUSEHOLD HEADS

In Kalampur the 34 household heads in the sample had a total of 24 children (6 sons and 18 daughters) who were living outside of the head's household at the time of the Household Survey. For the 34 households in Jalsha there were 22 children (7 sons and 15 daughters) in similar circumstances. Almost all of these outside children were married; all 24 in Kalampur were married and 20 of the 22 in Jalsha were married (just two males were single). At the same time, there were 6 married sons (all with wives and children) as well as 3 married daughters (all without spouse or children) living within the sample households in Kalampur. In Jalsha there also were 8 married sons (all with wives and children) but no married daughters in the sample households.

Examination of the distribution of these children by destination reveals that in Kalampur three of the head's sons live elsewhere in the community and three have emigrated, whereas 5 of the head's daughters reside in Kalampur while 13 have emigrated. For Jalsha the figures are even more shifted away from the traditional pattern: there are 2 head's sons living elsewhere within the community and 5 who have emigrated, while 7 head's daughters live in Jalsha and 8 have emigrated. It appears that the traditional pattern of patrilocality and village exogamy -- still strong in the generation of the household heads and their

siblings -- is possibly weakening in the generation of the household head's children.

Women who remain in their home communities are less likely than in earlier generations to entrust to their male relatives their share of inheritances and consequent food and cash surplus produced from those lands. Moreover, if they do make increased claims on their father's lands through inheritance, then it will likely reduce the average holdings for all family members within the generation. For instance, if just half of the unmarried girls in Kalampur sample households get married and remain in the community (as is the pattern in Jalsha already), then this might reduce the land holdings of their brothers who stay at home by about 25%.

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