Title
The markets of adversity: or why the rich don't buy rice

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Author
Crow, Ben D

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Markets, Class and Social Change

Trading Networks and Poverty in Rural South Asia

Ben Crow
Sociology Department
University of California
Santa Cruz

With research assistance from:
K.A.S. Murshid (co-principal investigator), Shahidur Rashid, Jagadinda Mazumdar, Abdur Rashid, Tarit datta Gupta, Shahjahan Miah, Sheela Firdousi

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The Markets of Adversity, or Why the Rich Don’t Buy Rice

This chapter shows that the rural rich do not depend upon markets for their food supply. They do not have to buy rice. It is the poor who buy rice, and it is the poor who suffer when rice prices rise. The grain stocks of rich households are maintained by grain payments they receive from other classes, for land and other means of production, as well as by their own production. It is primarily the poor who buy their staple food. Of the poor, labor households are the most dependent on markets for their staple food.

This chapter explores the patterns of grain inflow and grain stocks of rural households. Its purpose is to ask how those patterns vary by class and what the variation implies for the vulnerability or security of households.

Research over the last twenty years on hunger, vulnerability and food crises has made some big strides. A literature initiated by Amartya Sen (Sen, 1981; Dreze and Sen, 1989) shows that mortality in famine is specific to particular occupational groups, and that famine is often not directly related to production shortfalls. The causes of famine include a wide range of shocks to social relations, particularly those to markets and employment. These findings, from the entitlement approach to analysis of vulnerability, direct our attention toward the social relations through which particular classes gain command over food.

This chapter extends the entitlement approach by presenting a temporal analysis of the transactions that give different classes of peasant command over food. This description illuminates the class basis of entitlements and the seasonal variation in vulnerability of each class.

The first section of the chapter examines the patterns of grain inflow for different classes of household from one village. The second explores the frequencies of grain purchase for each class, and why poor peasants pay high prices. The third section of the chapter examines how poor peasant and labor households get food. The fourth examines the relationships between grain stocks, grain needs and vulnerability. The fifth section examines the levels of rice purchase, grain stocks and wage employment to illuminate the determinants of market participation for poor peasant and labor households. Section 5.6 concludes the chapter with a summary of the findings about vulnerability and the class constraints on market participation.

5.1 Independence of the rich: class patterns of grain inflow

I found striking variations between the grain inflow patterns of rich, middle, poor and labor households. Rich peasant households receive grain surpluses from other households for land and loan repayments, and rarely, if ever, need to purchase grain from the market. Middle peasants have similar patterns of receipts from others, combined with some additional inflows. Labor households have the most substantial and continuous engagement with the market. Poor peasant households have continuous purchases through much of the year, but with gaps of two to three months after each successful harvest.

Household grain inflows are remarkably diverse and interesting. Before illustrating these various class characteristics of household grain inflow, I should describe the range of transaction forms that give households access to grain.

The principal forms of inflow transaction are purchases of grain and share payments of grain for land. Within grain purchases there are striking differences between wheat, paddy and rice purchases. Rice purchases dominate the inflow transactions of poor peasant and labor households. Rice is generally preferred to wheat, even though the latter is cheaper. Wheat purchases in the grain inflow patterns of poor and labor households are concentrated in the lean seasons and indicate distress. Paddy purchases are primarily inputs to production, either seeds for cultivation or, more commonly, purchases for small-scale household processing of paddy into rice that is then sold.

There also a number of barter and commensurate barter transactions, in addition to share payments: grain payments for labor, for goods and for services; grain loans and loan repayments in grain; alms given as grain and government relief in grain. The forms of these payments were described in Chapter 3.

The broad patterns of household inflow transactions by class, described above, are illustrated in Figure 5.1, which compares the inflow
grain inflows can be compared with approximate minimum necessary consumption levels. Consumption of 13.5 seer/cap/month is roughly consistent with a 2200 calorie diet.

Grain inflows to labor households show, for example, that monthly purchases exceed the minimum level of 13.5 seer/cap/month except during the three months (periods 12 to 15) following the aman harvest. There is a small inflow (not shown in the figure) of grain payments for labor to these households during this time, but these households also rely on grain production from their tiny plots to which they have access.

Several clear conclusions can be drawn from these results. Rich and middle peasants in this village purchase little grain. Payments for land constitute the most substantial grain inflow to these households. In this region, nevertheless, those payments are relatively small. Rich and middle peasant households consume the grain they produce, and they do not need to purchase more grain for their own consumption.

By contrast, labor households are almost entirely dependent on the market for their rice and wheat. Poor peasant households are situated between the extremes of rich and labor households. Poor peasants consume the grain they produce for a few months after the harvests. For the rest of the year they are forced to purchase grain. This point is examined in greater detail in Section 5.3 below. As a result, poor peasant households are purchasing rice mostly during the lean months (periods 3.5 to 5.5, 10 to 12 and 16 to 18) before each harvest. These are the high price periods in the seasonal cycle. We will see in Section 5.2 that this results in poor peasant households’ paying the highest average annual grain prices of any rural class. In Chapter 4, I showed that these are the periods when the sales of rich peasants and landlords provide most of the supply to grain markets.

The results shown in Figure 5.1 provide strong confirmation that the peasantry is differentiated. The stereotype commonly held in the industrialized world that peasants are a homogeneous social category of subsistence farmers producing what they need for their own consumption is shown to be misleading. The grain inflow patterns show that this is a divided peasantry.

Figure 5.1 also shows the importance of analyzing market participation using the framework of class. Each class engages with the market according to its material circumstances.

Comparing inflow transactions by class across the eight villages, there is remarkable consistency to the inflows of rich peasant households in the Bogra and Noakhali char areas. The periodic substantial inflows to these households are dominated by grain transactions from other
households: share payments for land and loan repayments in the Bogra area, and loan repayments in the Noakhali char. In this area it is absentee landlords, not the rich peasants, who receive the bulk of the share payments.

By contrast, in the Noakhali plains, with agrarian conditions intermediate between those of Bogra and the Noakhali char, rich peasant households have inflow transactions much more like those of the poor peasants shown in Figure 5.1. They have substantial rice purchases, some grain received for goods or services, some share payments for land, and some paddy purchases. This contrasting pattern emerges because these villages are close to small towns and a larger proportion of villagers, including rich peasant households, have cash incomes from urban businesses or employment.

For most villages in all three areas, the grain inflow patterns of middle peasant households are similar to those of rich peasant households. These households have some additional rice purchases, and some grain received for goods or services. In the case of three villages in the Bogra area, some loans are also received in grain.

There is also substantial comparability in the grain inflow patterns for poor peasant and labor households. Those of poor peasants in the Noakhali char differ from the pattern shown in Figure 5.1, primarily because there is only one important paddy crop compared to the two in the Bogra area. I shall return to the discussion of these poor peasant and labor household inflow patterns in Section 5.4, where the different patterns of vulnerability are discussed.

In summary, this section has shown that it is the rich peasant households in the Green Revolution area that most nearly conform to the image of the subsistence peasant directly producing the food it consumes. Those households, however, also receive substantial inflows of grain from other households.

5.2 Why poor peasants pay high prices

I find, in Table 5.2 below, that poor peasant households pay the highest mean prices for rice. To find out why, I first examine the frequency of purchases of different classes of household.

On average, the time between rich peasant grain purchases is three months. In ten months of the year these households have no grain purchases. At the other end of the scale the average time between labor household purchases is seven days, and there is only one month in the year when they do not purchase grain.

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Table 5.1 Grain purchase frequencies

<table>
<thead>
<tr>
<th>Class of household</th>
<th>Mean days between grain purchases</th>
<th>Number of months with no purchases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landlord</td>
<td>no data</td>
<td>12</td>
</tr>
<tr>
<td>Rich peasant</td>
<td>110</td>
<td>10</td>
</tr>
<tr>
<td>Middle peasant</td>
<td>61</td>
<td>8</td>
</tr>
<tr>
<td>Small peasant</td>
<td>28</td>
<td>5</td>
</tr>
<tr>
<td>Poor peasant</td>
<td>14</td>
<td>3</td>
</tr>
<tr>
<td>Landless labor</td>
<td>7</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 5.1 summarizes, for each class, the time between grain purchases and the number of months with no purchases. There is a consistent inverse relationship between class and the frequency of grain purchase. The rich buy grain a few times a year. The poorest buy tiny quantities of grain almost every day. Poor peasants producing some grain have 3–6 months when they purchase little.

The inflow of grain to poor peasant and landless households in both areas is overwhelmingly (80–95%) through purchases in small quantities almost throughout the year. By contrast, share payments for land provide 80% of inflow to rich peasant households in Bogra. In the Noakhali char share payments are made to urban landlords, and rich peasants in this area receive significant inflows of grain in repayment of cash loans. In some cases these are payments owed ultimately to urban merchants.

The diversity of grain inflow transactions makes price comparison difficult. Most of the grain received by rich peasant households is not directly monetized. For this reason there is no valuation which can be used to compare with the prices paid for grain by poor peasant and landless households. Even in those relatively rare cases where rich or middle peasant households purchase grain, they tend to buy fine quality rice, not the coarse rice consumed by the poor. Nevertheless, some comparison of purchase prices is possible.

Table 5.2 presents an analysis of purchase prices comparable to the sale price analysis contained in Chapter 4 (Table 4.1). It shows weighted average prices for coarse rice purchased by different peasant classes in the same marketplaces. The four villages represented—one from the Bogra area (village 1), one from the Noakhali char (village 7) and two from the Noakhali plains (villages 5 and 6)—have been selected because in these villages all classes made some purchases in the same marketplaces.
Table 5.2  Rice purchase prices by class

<table>
<thead>
<tr>
<th>Village</th>
<th>Mean annual purchase price (taka/maund)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rich peasant</td>
</tr>
<tr>
<td>1</td>
<td>380.00</td>
</tr>
<tr>
<td>5</td>
<td>386.47</td>
</tr>
<tr>
<td>6</td>
<td>371.79</td>
</tr>
<tr>
<td>7</td>
<td>333.58</td>
</tr>
<tr>
<td>Mean</td>
<td>367.84</td>
</tr>
</tbody>
</table>

Poor peasants experience, on average, the highest prices. The inverse correlation between price and class, found in Chapter 4, with the rich getting more favorable prices than the poor, is not exactly paralleled in the pattern of purchase prices.

There is a reason for this. The seasonal patterns of purchases by class, as indicated in Figure 5.1, show:

- Labor households purchase rice fairly constantly all year round.
- Poor peasant households purchase rice at the least advantageous periods, the lean seasons.
- Rich and middle peasant households buy rice, if they ever buy it, erratically.

These purchase patterns fit with the data in Table 5.2. Poor peasants pay, on average, the highest prices for their rice. Labor households and rich and middle peasants pay somewhat lower prices, with the averages for the four villages close to one another.

The differences in mean prices are not large in the year under study. Poor peasants pay 3.4% more for their rice than rich peasants. The importance of this finding is that poor peasant purchases are concentrated in exactly those months when prices are vulnerable to shocks.

5.3  How poor and labor households get food

The vulnerability of poor and labor households to hunger can be illuminated by an analysis of the grain inflow patterns provided by this study.

Figure 5.2 portrays the grain inflow patterns for poor peasants in one village, village 6 in the Noakhali plains. The axes of the graph are the same as those in Figure 5.1. The horizontal axis is time in 30 day periods and the vertical axis is grain inflow measured in seer per month per capita. The two vertical lines in the body of the graph (periods 5 and 17) indicate the start of the main rice harvest in this region. The legend of the graph shows the notation for two types of grain purchase, rice and wheat, two types of non-monetized grain inflow, for labor and for land, and grain loans. The horizontal line at 13.5 seer/month (15 oz/day) represents minimum per capita consumption necessary for survival.

The timing of poor peasant rice purchases can be clearly identified in the figure. For several months before the harvest, there are significant rice purchases. After the harvest, little or no rice is purchased. These households draw upon their own stocks for five months (periods 7 to 11).

Figure 5.2 thus confirms that poor peasants buy grain for consumption in the high price months of the lean season before the harvest. When prices are low, after the harvest, it is the merchants, and others with the liquidity to purchase and store grain, who are buying grain, not the poor peasants. Poor peasant purchase transactions are thus untimely, concentrated in those periods when the market is least friendly.

In this village, significant grain payments for labor are received during the months before the harvest, periods 12 to 18. Figure 5.4 below shows that this is a period when household grain stocks are very low. The combination of rice purchases and grain receipts for labor brings household grain inflow close to minimal nutritional requirements. For these poor peasant households, in other words, hunger is kept at bay through the combined grain inflow from rice purchases and grain receipts for work.
I turn now to summary tables of mean monthly inflows that illuminate differences between poor peasant and labor households, and between regions. Tables 5.3 and 5.4 summarize the grain inflows for poor peasant and labor households in each of the eight study villages. As before, 13.5 seer/capita/month represents an approximate minimum calorific intake. These tables confirm some elements of the picture that has emerged already, and provide some points of contrast between regions.

### Table 5.3  Mean monthly grain inflow per capita, poor peasant households

<table>
<thead>
<tr>
<th>Village</th>
<th>Rice</th>
<th>Paddy</th>
<th>Wheat</th>
<th>Goods &amp; labor</th>
<th>Land</th>
<th>Loan</th>
<th>Alms</th>
<th>Loan repayment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>7.6</td>
<td>0.4</td>
<td>0.2</td>
<td>0</td>
<td>1.1</td>
<td>1.1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>3.7</td>
<td>2.4</td>
<td>0</td>
<td>2.0</td>
<td>1.6</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>3</td>
<td>4.6</td>
<td>0.7</td>
<td>0.2</td>
<td>0.4</td>
<td>0</td>
<td>0.4</td>
<td>0.4</td>
<td>0.4</td>
</tr>
<tr>
<td>4</td>
<td>5.1</td>
<td>0.2</td>
<td>1.4</td>
<td>1.5</td>
<td>0.3</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>5</td>
<td>4.9</td>
<td>1.0</td>
<td>0.3</td>
<td>0</td>
<td>0.3</td>
<td>0.1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>5.4</td>
<td>1.8</td>
<td>0.4</td>
<td>2.8</td>
<td>0.1</td>
<td>0.5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>3.4</td>
<td>1.3</td>
<td>0.3</td>
<td>0.6</td>
<td>0</td>
<td>1.4</td>
<td>0.1</td>
<td>0.8</td>
</tr>
<tr>
<td>8</td>
<td>4.9</td>
<td>1.9</td>
<td>0.1</td>
<td>0.1</td>
<td>0.3</td>
<td>0</td>
<td>0</td>
<td>1.3</td>
</tr>
<tr>
<td>Mean</td>
<td>5</td>
<td>1.2</td>
<td>0.3</td>
<td>0.9</td>
<td>0.4</td>
<td>0.5</td>
<td>0</td>
<td>0.3</td>
</tr>
</tbody>
</table>

### Table 5.4  Mean monthly grain inflow per capita, labor households

<table>
<thead>
<tr>
<th>Village</th>
<th>Rice</th>
<th>Paddy</th>
<th>Wheat</th>
<th>Goods &amp; labor</th>
<th>Land</th>
<th>Loan</th>
<th>Alms</th>
<th>Loan repayment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>12.8</td>
<td>0.3</td>
<td>0.7</td>
<td>0</td>
<td>0</td>
<td>0.4</td>
<td>0.6</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>15.9</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0</td>
<td>0.1</td>
<td>0.1</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>12.4</td>
<td>0.8</td>
<td>0.7</td>
<td>0.2</td>
<td>0</td>
<td>0.3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>8.9</td>
<td>0.3</td>
<td>0</td>
<td>0.4</td>
<td>0</td>
<td>0.4</td>
<td>0.7</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>10.9</td>
<td>0.6</td>
<td>1.6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>8.9</td>
<td>1.2</td>
<td>1.0</td>
<td>0.1</td>
<td>0.2</td>
<td>0</td>
<td>2.0</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>9.5</td>
<td>3.8</td>
<td>1.8</td>
<td>1.8</td>
<td>0.5</td>
<td>0.3</td>
<td>1.3</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>11.6</td>
<td>1.3</td>
<td>1.7</td>
<td>0.1</td>
<td>0.1</td>
<td>0.6</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mean</td>
<td>11.4</td>
<td>1.1</td>
<td>1.0</td>
<td>0.3</td>
<td>0</td>
<td>0.2</td>
<td>0.7</td>
<td>0</td>
</tr>
</tbody>
</table>
For both poor peasant and labor households, rice purchases are the largest source of grain inflow. For labor households this inflow alone provides more than half of, and in three villages approximately the total, minimum grain consumption. In the case of poor peasant households, however, rice purchases provide around one third of needs.

Most paddy purchases, as noted above, are used as seed or in a household grain processing business. These purchases are not for consumption. Wheat purchases, again as noted above, are almost always for consumption and often indicate distress purchases. These purchases are generally higher for labor households, particularly in the Noakhali plains, villages 5 and 6, and chars, villages 7 and 8. This confirms our impression from fieldwork that the poor in these villages are more impoverished than in the Bogra region villages.

Barter transactions for goods, labor and land are all generally more significant for poor peasant households than for labor households. The variation from village to village is, nevertheless, substantial. Loans of grain are larger for poor peasants. This is to be expected because land ownership is frequently used as security for loans, and poor peasants have slightly more land than labor households. Alms, in this case both private and governmental gifts in grain, on the other hand, are generally more significant for labor households than for poor peasants, particularly in three of the four Noakhali villages. In two villages, alms constitute 10% or more of minimum consumption.

Table 5.5 outlines the ways in which different forms of transaction appear to reflect power and servility. Loans of grain establish a set of obligations to the lender. These obligations may be to repay grain, often a substantially larger quantity, or to undertake labor, often at peak times. These constitute a new dependency and may summon, for the borrowing household, a horror of debt and subservience. Such loans may be a last resort, entered into only when options have been narrowed. Figure 5.2, for example, shows poor peasant households taking grain loans around the time of the first harvest, period 6, and when stocks have been exhausted in the next season, periods 12 and 14.

Purchases of wheat suggest distress. Rice is the preferred staple for most communities in Bangladesh. Wheat has tended to be a cheaper, less acceptable food, indicating lower status. Wheat purchases tend to be during the lean season. Figure 5.4 indicates wheat purchases occurring in the lean, pre-harvest seasons, periods 4, 5 and 16, and during the time of reliance primarily on own stocks, period 8.

<table>
<thead>
<tr>
<th>Transaction type</th>
<th>Servility/subservience</th>
<th>Distress/crisis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchased rice</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Purchased wheat</td>
<td>No</td>
<td>Often</td>
</tr>
<tr>
<td>Grain for labor</td>
<td>Possibly</td>
<td>No</td>
</tr>
<tr>
<td>Grain for land</td>
<td>Not for grain recipient</td>
<td>No</td>
</tr>
<tr>
<td>Grain loan receipts</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Alms</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Relief</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Grain payments for labor provide a significant source of grain for poor peasants. The timing of these payments is likely to be determined more by the demands of cultivation, with peak labor demand occurring during land preparation, transplanting and harvesting, than by the needs of the consuming households.

Transactions involving servility or distress are concentrated, in Figures 5.3 and 5.4, at times when the bargaining powers of poor peasants seem to be at their lowest. These are times when credit and grain markets uphold the power of the rich and diminish the security and self-respect of the poor. One way peasant households can avoid distress transactions and those that imply servility is by maintaining sufficient stocks of food. But, of course, class stratifies grain stocks.

5.4 Grain stocks, needs and vulnerability

Household levels of grain stocks, grain needs and grain purchases can be used to provide measures of vulnerability. Table 5.6 summarizes data for three measures of security and vulnerability.

To have household grain stocks sufficient to meet household consumption for at least a month is a measure of some security. Whatever happens to the employment and income of the household, to its production or to the price of grain in the market, the household has a store of grain sufficient for its grain consumption needs. This measure of food security is recorded in column 1 of Table 5.6: the percentage of months when a household in each class has sufficient grain in stock to cover their consumption needs. Consumption is estimated at the level reported monthly by each household and averaged over 18 months. For this measure there is a clear and systematic relation between class and the extent to which stocks meet the needs of the households. Landlord and rich peasant households have a stock exceeding the
amount they would consume in a month for 92–100 percent of months. The measure declines steadily until we reach the bottom of the class hierarchy, where landless labor households have stocks that could meet their needs for only a third of the time.

Maintaining a stock of grain is clearly not the only form of security available for a rural household. A secure income and cash reserves provide alternatives for ensuring there is adequate food on the table. If there are reserves of income or savings, then households can purchase the food they need.

The measures in columns 2 and 3 of Table 5.6 portray the ways in which grain purchases may make up for any shortfall in stocks. The sum of columns 1, 2 and 3 is 100 because the three categories of month cover all possibilities considered. Table 5.6 records in column 2 the proportions of months in which grain stocks were inadequate but grain purchases were adequate to meet needs. Column 2 shows that the richest peasants depend least on purchased rice (in any given month) and poor and landless peasants depend most on purchased grain. In these latter cases, purchased grain meets needs in more than a third of months.

Column 3 records the remaining days, when stocks were inadequate to meet needs and purchases were also inadequate to meet needs. Both prior stocks and cash income were insufficient to provide basic grain requirements. With this measure, also, there is a clear and systematic relation between class and vulnerability. Rich peasants and landlords have less than 4% of months when neither stocks nor purchases are sufficient to meet their grain consumption needs. Middle and small peasants experience vulnerability of this sort in 10 percent of months, poor peasants in 20% of months, and landless peasants in 30 percent of months.

These measures of the confidence with which household food supplies can be met, either from stored food or from purchased food, present a clear picture: the richer groups of rural dwellers are able to ensure their grain needs are met; successively poorer groups are less and less able to achieve that end and are driven closer to distress transactions and subservience.

The poor get their food from the market to a greater extent than the rich. They are, therefore, more vulnerable to its fluctuations. Poor and landless peasants are also unable to buy sufficient grain to meet their needs for the majority of months, when they rely on the market.

There is one further aspect of class differentiation in the cost of foodgrain arising from the credit purchasing faced by the poor. Purchase prices for poor peasants and landless households, in the Noakhali chars, are underestimated in Table 5.2. Credit purchases from a village store are excluded from that table, because it focuses on spot purchase transactions. Credit from the local store has been explored through discussion with shopkeepers and examination of the books of one village shop in this area (see Section 6.36). When debts for small quantities of rice accumulate, the shopkeeper may restructure the loan for longer-term payment with some form of security. In the Noakhali chars restructured loans of this sort take the form of the price-fixing cash loan described in Chapter 3. That is, the cash value of accumulated debts is transformed into a paddy debt at a rate related to that of similar loans in that area and season. When this happens the effective price of rice is increased substantially. This further price rise is not reflected in the data shown in Table 5.2.

5.5 Consumer participation by class

One element in the Bharadwaj framework of class participation in markets, summarized at the beginning of Chapter 4, is a hierarchy of power or agency in markets. ‘Dominant parties’, that is, rich peasants and landlords, influence the terms and conditions of exchange. ‘Medium operators’, or middle peasants, enter the market voluntarily. But desperate cash needs and prior obligations force poor peasants and the landless to enter markets under adverse conditions.

The data from our study enable us to explore the determinants of grain purchase more fully, particularly for poor peasant and labor households. The hypotheses that emerge from this exploration are these:
- poor peasant households purchase grain for consumption when their own grain stocks are nearly exhausted
- labor households purchase grain fairly consistently year round, except when they have some minimal stocks from their own production; when work availability falls, and their own grain stocks are depleted, the consumption of these households may be in jeopardy.

The relationship between inflow and stock patterns for poor peasant households is shown in Figures 5.4 and 5.5.

The lower part of Figure 5.4 shows the grain inflow pattern for poor peasant households in village 6, in the Noakhali plains. Above is the pattern of average grain stocks for those households, calculated as days of food consumption that stock could provide. Stock levels rise to roughly 100 days of grain at each of the main, boro, harvests. There is also a smaller peak of over 50 days after the aus harvest. After each stock peak, the rate of decline of around 30 days of stock per month suggests that the households consume only their own stock.

The grain inflow pattern confirms this suggestion. Grain purchases drop to zero once stocks rise to a peak. The five-month gap in purchases, between periods 7 and 11, coincides with the period when stocks rise to a peak and then decline down to the range of 10–20 days of stock.

The seasonal patterns of grain inflow and grain stocks for poor peasants in village 3, Figure 5.5, show a similar pattern. Stocks for these households, in Bogra, peak at a similar level of around 100 days. When stocks peak, in periods 7 and 14, purchases of rice tail off. (Paddy purchases are not shown on this graph because they are less likely to be used for consumption.) Again there is a negative association between rice purchases and stocks, which can most plausibly be explained with the hypothesis that grain purchases are a last resort, when stocks of own production have been depleted. In these households, grain stocks fall below 5 days of consumption on two occasions.

Turning now to labor households, the relationship between rice purchases, and levels of work and grain stock, is shown in Figures 5.6 and 5.7.

Figure 5.6 presents the pattern of rice purchase for labor households in village 6, with the pattern of days of work shown above, and these households’ mean stock levels shown below. Examination of the upper two sections of this figure suggests a first hypothesis: rice purchases
Figure 5.6 Rice purchases, work and grain stocks, village 6 labor households

decline when work opportunities fall. Adding in the information on
days of grain consumption held in stock suggests the first hypothesis
is too simple. A more complete identification of periods of food scarcity
needs to combine both levels of work and grain stocks. Even though
workdays fall in the months after a harvest (period 5,5), mean levels of
grain in stock for this group of households are sufficient to sustain
minimum consumption levels. A level of rice purchase of 13.5 seer/
capita/month would ensure that minimum grain needs could be met
from purchased rice.

Figure 5.7 Rice purchase, work and grain stocks, village 3 labor households

Work levels fall from a mean of around 3 days per week, between
periods 2 and 6, to a minimum of 1.5 days per week in period 8. In this
village, this is the time after a small boro harvest, when agricultural work
may be scarce. In the following month, rice purchases decline to a
quarter of the minimum required to meet consumption needs. Grain
stocks, however, provide roughly 70 days of consumption needs.

A lesser decline in work availability, in period 13, is associated with a
smaller fall in rice purchases in subsequent months. Grain stocks at this
time, periods 13 to 17, are declining steadily. The full record of inflow
transactions for these households shows they have regular, but much
smaller, inflows of wheat purchases and alms or government relief in
grain.
Figure 5.8  Rice purchase, work and grain stocks, village 8 labor households

A somewhat similar picture emerges for labor households in village 3, as shown in Figure 5.7. Again, a brief examination of the upper part of the figure suggests that levels of rice purchase sometimes fall in response to declining availability of work. The variation in work levels for this village is greater than for village 6, possibly because village 3 is located further from an urban area and a passable road. Work availability for village labor households varies from 0 days per week on three occasions to 3.5 and 4 days a week.

These households, in the Green Revolution area of Bogra, appear to be more vulnerable than households in village 6 are because low levels of work availability occur simultaneously with very low levels of household grain stocks. In period 6, a week of zero work coincides with a month when grain stocks will support only 5 days of consumption. Again, later in the study period, work levels are just above 1 day per week between periods 16 and 18. At this period, household grain stocks are declining from about 10 days of consumption to 1 or 2 days.

These households purchase wheat in periods 4 to 7 and 16 to 18, roughly the lean periods before the harvest, and they have some small grain loans around period 11. But they record receiving virtually no alms and relief.

The comparable data for labor households in village 8, in the Noakhali chars, are shown in Figure 5.8. The availability of work, at levels between 3.5 and 7 days per week, is much higher than in village 6, and both higher and less variable than in village 3. These high levels of work availability are associated with an area of extensive agriculture, and a village within reach of a small market town. Work levels reported for this class in village 7, distant from this town, are commonly in the range 2 to 4 days per week. However, the stock levels of village 8 reflect the single agricultural crop prevailing in the area. Between periods 7 and 13, household stocks provide consumption for 14 days or less. From periods 11 to 16, and again between periods 18 and 19, wheat purchases (not shown on Figure 5.8) are significant for these households, in the range 3 to 4 seer/capita/month. This suggests that these are periods of stress for labor households in village 8. Even the resources provided by relatively frequent employment do not enable rice to be purchased. The cheaper, generally less preferred grain, wheat, is purchased to make ends meet.

Figure 5.9 illustrates the vulnerability of labor households in village 7. Although work levels do not fall below 1 day per week, the grain stocks of these households are below 10 days for six months. For two months, between periods 2 and 4, rice purchases are not adequate to meet minimum consumption needs. These households appear to be living very close to the line, and may well be reducing their food consumption to make ends meet.

5.6 Conclusions

An overly simple image of peasant households portrays them as subsistence producers, with an independence from market and global forces granted by self-provisioning. There is some truth to this image. The variety of peasant entitlements, particularly self-provisioning, does grant some independence from the uncertainties of income and market prices. But the image applies most to rich and middle peasant
households and thus, upon the separation of poor peasants from their land. This was one of the themes of Lenin's writing on the peasantry in Russia in 1899. He suggested that it was the differentiation of the peasantry that created a home market for capitalism. The decline of an independent, self-sufficient peasantry and the growth of poor and landless households, in Lenin's terms the 'rural proletariat', generated large-scale demand for food: The rural proletariat, by comparison with the middle peasantry, consumes less, and, moreover, consumes food of worse quality (bread instead of potatoes, etc.), but buys more. (Lenin, 1982, 134; italics in original)

This description is reflected in contemporary Bangladesh. The middle peasantry buys almost nothing in comparison to the poor peasant and labor households, and the substitution of bread for potatoes has a clear parallel in the substitution, during the lean season, of wheat for rice by poor peasants. These distinct class patterns of grain consumption suggest that the decline in seasonal variation in grain prices, which has generally been attributed to the Green Revolution and to government intervention (World Bank, 1992, annex 8), may also reflect the growing size of the class of labor households and the decline of poor peasant households.

What can we conclude about the different patterns of security and risk faced by each class of household? Grain stocks are least for labor households and are depleted sooner than those of other classes. Then, if work is not available when household grain stocks are depleted, labor households are at risk of nutritional deprivation. Poor peasant households have slightly more substantial grain stocks, amounting to roughly three months of grain consumption. These stocks are depleted more slowly than those of labor households. For more than 80 percent of the time, rich and middle peasant households have at least one month of grain consumption in stock, and in more than half the remaining months they are able to purchase what they need. For only 4 percent of the time in rich peasant households, and 10 percent for middle peasant households, do stocks and purchases not exceed consumption needs. By contrast, poor peasant and labor households have sufficient grain stock for a month's consumption needs only 40 percent and 30 percent of the time, respectively. For one fifth of the time for poor peasants, and nearly one third of the time for labor households, neither grain stocks nor purchases are sufficient to provide consumption for one month.

In Chapter 4 we saw that class and season structure the grain supply to the market. In general, the rich sell at high price times and the poor at low price times. In this chapter we have seen that class also structures
the demand for rice for consumption. The rich and middle peasant households are almost entirely absent from the demand side of the grain market. Demand is constituted entirely by the poor. Their participation is constrained by their available resources, resulting in the patterns of transacting from adversity we have seen. In sum, class polarizes household participation in the grain market.
Notes

1 Land ownership categories, for example, may not reflect the accumulation capacities of a household owning a fleet of buses.
2 Names have been fictionalized where interviewees wanted confidentiality.
3 The unprocessed grain is called paddy. It has to be soaked, steamed and husked to produce the rice which is consumed in much of South Asia.
4 Outflow proportions were calculated (using paddy equivalent quantities) from monthly totals recorded between January 1988 and June 1989.
5 Those landlords, financier-brokers and large traders associated with the ruling order suffer little robbery and default. For others, the area is violent and risk-prone. Whilst selective security may be particular to this backward area, there is a general involvement of merchants in the maintenance of security extending even to the capital city, Dhaka. In work completed as part of this study, Harriss found that associations of Dhaka grain merchants are much more concerned with aspects of market regulation and security than counterpart associations in India. She notes that, 'while law and order activities are rarely carried out by mercantile associations in India, they are routine and important functions of mercantile associations in Bangladesh and are thought to result from greater insecurity of property, contract and person' (Harriss, 1989, A-39).
6 By 1993, the kg Md had been widely adopted in grain markets throughout the country and this aspect of local difference was reduced.
7 Our argument is that contracts are best evaluated in context. Thus, the trade-tying loans of the Dhaka markets may not have the same consequences. We suggest that the ability of the lender to transfer risks with this contract is reduced when the borrower has assets and independent market standing.
8 This research is described in more detail in Crow et al. (1991).
9 In interviews, traders distinguished between more and less solvent traders, perhaps in reflection of the importance of independence from larger merchants.
10 One lending miller, for example, said that he had suffered no default in nine years of operation. He considered outstanding loans insignificant compared to his returns. Bhaduri (1977, 343–4) also notes that the personal power of lender over borrower means that default can be managed and losses recovered.
11 The prevalence of these transactions in other parts of the countryside, including Sylhet and Mymensingh in the north-east, and Barisal and Patuakhali in the south, has been established through interviews with traders in major wholesale markets, including Madanganj, Badamtoli and Ashuganj. This form of financing is sufficiently large in scale that it shows in the seasonal capital-utilization patterns of traders in these markets. This type of contract is also found in the south-west of the country (Crow, 1989). Village studies and more intensive studies have noted evidence of this type of interlinkage (Arens and van Beurden, 1977, 113; Hashemi, 1988; Sen, B 1988;
Lewis, 1991a, 1991b). Larger-scale questionnaire surveys sometimes lead to low estimates of its prevalence (for example Chowdhury, 1992, 149). Lewis (1991a, 358) suggests one reason for the disparity between these two types of survey: ‘many farmers would say that they obtained goods or agricultural inputs for cash, even if it were not true, as an assertion of their own autonomy and lack of dependence on anyone else [or in recognition of religious constraints on interest].’ It is plausible that socially sensitive, interlinked transactions may be underreported in questionnaire surveys.

12 These samiti have been formed by relatively wealthy young people to lend money to non-members at prevailing price-fixing loan rates. When members take loans, rates are lower.

13 Because it compares the dhaner upore price with the non-tied sale price received by the same grower in the market, differences of moisture and quality of paddy supply are largely canceled out.

14 This estimate was given in a discussion with research assistant Shahnur Rashid. Financier-brokers did not grant access to their ledgers.

15 In the unequal conditions of backward agriculture default may constitute an opportunity to foreclose on other assets rather than a risk of default (Bhaduri, 1977; Rao, 1980; Sarap, 1990). This opportunity may particularly influence transactions between intermediaries and final borrowers, because resident intermediaries have ready access to, and influence in, village tribunals.

16 See Rao’s discussion of the range of default outcomes arising from different asset and collateral valuations (Rao, 1980, 161–2).

17 Estimates of price losses are based on actual repayment rates rather than agreed nominal payments.

18 The range of differences between repayment rate and free sale prices is Tk 67–71 and with rollover prices is Tk 112–115. The difference between borrowing and lending prices is thus 27 per cent of the former figure and 16 per cent of the latter figure.

19 Financier-brokers lending rice to village shops do have to visit their networks of village shops in order to collect their debts. One of the largest rice brokers estimates a monthly cost of Tk 300–400 for the collection of debt owed by the village shops and retailers he supplies. This is on a total circulating capital of Tk 300,000–400,000. It seems surprisingly cheap for a substantial sum lent through a complex hierarchy of credit relations.

20 There is a less frequent third variant, in which repayment is made at prices current at the time of repayment.

21 This section is based on a survey largely designed and implemented by Shahnur Rashid and Jagadindra Mazumdar.

22 Based on Spearman’s rank correlation. The theory underlying this procedure appears in Kendall (1990), section 4.4. The procedure is equivalent to the test given in section 7.2 in Hollander and Wolfe (1973). Two outlying observations have been excluded in the analysis.

23 In this table, all six classes are distinguished. For most of the graphs and tables in this chapter, small peasant and poor peasant categories have been aggregated and presented as one.

24 Lenin describes the rural proletarians as a class of ‘allotment-holding wage workers’, including both poor peasants and rural laborers with some minimal access to land.

25 From 1960 to 1973 the pattern of national prices showed two similar price peaks, separated by about six months, prior to the two main harvests. Since the early 1980s the difference between peak and trough prices appears to have been reducing, and smaller intermediate peaks have been emerging (World Bank, 1992, annex 6, figure 6.4).

26 Caricatures may, nevertheless, be an improvement on the omission of traders characteristic of neoclassical analysis of markets.

27 These role-names provide a useful starting point for classification because they represent some elements of the traders’ own categories of trade. Their interpretation, however, requires care because the same names may be used for several different roles, depending on the region or the context. The role names given are not comprehensive, even for the markets we studied. Some names for similar roles have been grouped together.

28 Small brokers, dalal beparis, are also sometimes found in rural hats but were not sampled for this study.

29 Semi-automatic mills use large steel tanks and piped steam to process paddy, instead of the earthenware soaking-jars and aluminum pans boiled over wood fires used by smaller-scale processors.

30 The transition also reduced the productive role of women and hence their influence in the household.

31 Tarig did consider buying a transformer to make private connections, but the appropriate voltage of transformer was not at that time available in Bangladesh.

32 Comparable data for Noakhali is not available. The price data collected did not provide adequate sample sizes for purchase and sale transactions.

33 Figures 7.4 and 7.5 are area graphs, in which the data are portrayed cumulatively. This is in contrast to the line graphs used for Figures 7.1 to 7.3, in which data values are shown independently.

34 Using the software package SPSS, the labor exploitation ratio was calculated and households allocated using the limits established by Patnaik (Table A.2). Both landlord (kclass 1) and labor selling (kclass 6) households use zero family labor, and therefore generate a ratio K of infinity. Since SPSS cannot cope with infinity, the distinction between these households was established by whether or not they hired labor. In the cases of a further nine households zero family labor was recorded, but cultivation was listed as the primary occupation of the head of household, the household owned more than half an acre of land, and it hired in some labor. For these households, a number of criteria were used to estimate kclass. These included land and other asset ownership levels, levels of labor hiring and sale, and initial census classifications.
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