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# A MARKET IN TRANSITION?

# THE CASE OF THE BANGLADESH RICE MARKET

K.A.S. MURSHID

FEBRUARY 2001

*FMRSP Working Paper No. 28*

**FMRSP** Bangladesh
Food Management & Research Support Project
Ministry of Food, Government of the People's Republic of Bangladesh

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*This work was funded by the United States Agency for International Development (USAID)*

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*The views expressed in this report are those of the author and do not necessarily reflect the official position of the Government of Bangladesh or USAID.*

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# EXECUTIVE SUMMARY

## INTRODUCTION

There have been major forces at work in the rural economy over the past decade and a half, with quite striking implications, in particular, for the rural food economy. On the production front, large increases in foodgrain productivity have taken place ushering in an era of near self-sufficiency in rice. The incentive regime facing agriculture has undergone a major transformation, resulting in rapid technological change (widespread adoption of the Green Revolution technology and modern irrigation practices). Significant improvements have taken place in physical infrastructure (rural roads, telecommunications and rural electrification) and in the delivery system of rural services, including financial and extension services. The rice market has also had to contend with withdrawal/reduction of food subsidies, reforms of the Public Food Distribution System, trade (import) liberalization of rice and expanded production and marketed quantities.

The purpose of this paper is to explore rice market dynamics in the Bangladesh context for signs of a transition towards a more developed (impersonal) market structure.

## METHODOLOGY

The data generated for this study has been obtained from a selective re-survey of the original Crow and Murshid (1994) study areas in late 2000 in order to have comparative evidence between two points in time separated by over a decade. This has provided us with a rare opportunity to take a close look at various aspects of the rice market: structure, trade finance and forms of transactions. It is an opportunity to examine whether the charges of stagnation and lack of dynamism that is often levied on the countryside is an apt description of current realities, in the context of a specific market, namely the domestic rice market in Bangladesh.

The study areas relate to three distinct sets of markets. An agriculturally progressive or "advanced" Green Revolution area in Bogra in the Northwest, an agriculturally "backward", mono-cropped *char* area in Noakhali in the South and the major urban market configurations in the Dhaka - Narayanganj belt, consisting of Badamtoli, Madanganj and Kamlaghat.

## BACKWARD AND ADVANCED AREAS: CHANGING CONTRASTS IN THE EXCHANGE REGIME

### *A Backward Area: Chars of Noakhali, 1988*

When the area was first visited in 1988 it was found to be predominantly single-cropped with *Aman* paddy cultivation (from August to November) constituting the main agricultural activity. Land productivity was low, with a high incidence of tenancy and sharecropping, a predominance of absentee landlords and a relative lack of alternative employment opportunities. The area was poorly served by infrastructure, services and institutions. Communications were difficult, very few development agencies or programs were seen to operate here and access to schools, clinics and hospitals remained very limited.

### *Trade Circuits, Credit Hierarchy and Types of Credit Relations*

The large *char* grain collection market stood at the apex of a hierarchy of financial relationships that served to channel cheap paddy from its hinterland to money-lending traders and absentee landlords. The hierarchy was found to operate through a network of trading-financial arrangements that extended up to the grower's level and was sustained by its dominance over the local power structures (including the police and *lathials*), as well as its control over transport from within and from the area. Its principal functions were to secure paddy supply for the traders at the apex (at a low rate) in exchange for financing cultivation costs and consumption during the growing stages of the crop.

There were two principal forms of trade or merchant capital operating in the backward area that could be viewed as the basic economic links binding the hierarchy - designated here by *dhaner upore* and *dadon*. The first is a pre-harvest price-fixing loan to cultivators to be repaid in kind at harvest. The second is a trade-tying working capital loan to a subordinate trader by a money-lending trader.

*A Green Revolution (Advanced) Area: Bogra, 1988*

An advanced area of Bogra district that was studied stands out in sharp contrast with the Noakhali *chars* discussed above. The area is situated in the very old alluvium of the Barind Tract, unlike the still active *chars*, and is much more densely populated. The area is characterized by intensive irrigation development and adoption of the Green Revolution technology, in the 1980s. Multiple cropping is universal, communications are good and electrification was expanding quickly. Sharecropping was found to be rare with the predominant form of tenancy being in terms of fixed cash rents. The area posts a healthy surplus in both the *aman* and *boro* seasons.

In terms of credit related to the grain trade, very few cases of *dhaner upore* were found. There is some lending from rich to poor peasants but the most prominent form of loans was those from rich growers to traders and millers. Short-term supplier's credit (*paikari baki*) is used widely to increase turnover and is given by millers to Trader-brokers (*aratdars*). The main condition of these loans is that the *aratdar* may not buy from any other miller in the same market.

The main trading circuits identified show two distinct flows: a relatively small, local flow meant for the local market and a much larger flow catering to the deficit markets to the South and in Dhaka.

***Previously*** three main contrasts in the exchange regime were identified:

- in the proportion of free and tied transactions in rice,
- in the number and types of intermediaries in the main trade circuits, and
- in the form and direction of credit.

*Nature of Transactions*

The most striking contrast was found in the extent of tied and non-tied transactions in the advanced and backward areas and markets. Transactions of growers with traders in the former were largely untied while those in the latter exhibited considerable tying, mainly through sharecropping and *dhaner upore* loans. Thus over 92 percent of sales by growers in the advanced area were non-tied while this was only 30 percent in the backward area. A form of credit popular amongst surplus growers in the advanced areas (mostly to processors and traders) was the higher-than-market price loan in which the debtor pays back the creditor at the end of the season at the highest price of the season. In other words the origin of capital in advanced areas is "free" agriculture while that in backward areas is primarily mercantile (big traders) or semi-feudal (large sharecropping landlords).

These contrasts remain even today but have diminished greatly in a number of ways. Sub-ordinate traders tied to urban trader-financier-brokers who were central in channeling *dhaner upore* loans to poor cultivators in backward areas have all but ceased their lending functions. The incidence of *dhaner upore* remains significant but the role of the trader-financier-brokers who used these as a well-structured mechanism to procure paddy supplies cheaply, no longer exists. The number of traders has sharply declined (by 60 percent) and those that have survived now transact principally in cash to procure supplies. One possible factor may be the lower returns to *dhaner upore* today compared to the situation in the late 1980s, making it unattractive to traders (but not to absentee landlords).

*Market Structure and Trade Circuits*

A second contrast between the two areas was in the market structure and in the circuits of trade. A decade ago the circuit in the backward areas was longer compared to that of advanced areas because of the need to engage additional intermediaries to finance and channel the *dhaner upore* loans originating from the trader-financier-brokers (namely the paddy collecting subordinate trader). An interesting reversal has occurred a decade later. The *cycle bepari* (paddy collecting agent or faria) and the paddy *aratdar* have emerged as important players in the advanced area markets (thereby elongating the circuit). Previously, the role of the *cycle bepari* was essentially that of a small or microprocessor cum trader using family labor to process the paddy (soaked, sun-dried and parboiled before husking in a mill) for ultimate sale to the rice *aratdar* or outside buyer.

By contrast, in backward areas, the near demise of trader-financier-brokers and their tied, subordinate agents have shortened the circuit.

*Form and Direction of Credit*

The realignments in the structure of trade has meant that the downward flowing trade finance (to growers) in backward areas no longer exists as has been the fate of the upward flowing higher-than-market price credit from growers to millers or traders in advanced areas. Thus, the *dhaner upore*-led trade finance to growers has lost its significance in backward areas. In advanced areas, surplus growers are no longer able to transfer their price and storage risks on to medium processors or mills through higher-than-market price credit. The bulk of trade credit now available in both backward area and advanced area markets are short-term sales on credit (typically rolled over every 7-15 days and settled at the end of each trading season) provided by paddy *aratdar*s, millers and wholesalers to their customers. Transactions at both ends of the trading circuit, i.e. with growers on the one hand and retailers on the other are strictly in cash.

## TRADE TYING IN LONG DISTANCE TRADE

Trade tying loans generally known by the generic name of *dadon* has been reported from many major markets in Bangladesh, e.g. Badamtoli, which used to be one of the largest wholesale markets of the country. Similarly large markets in Narayanganj (e.g. Kamlaghat and Madanganj, just outside Dhaka) also reported widespread use of *dadon* as well as *dhaner upore* loans given by large traders to subordinate traders as a key business strategy to segment the market.

Revisiting these areas in 2000 we were surprised to find that both *dadon* and long distance *dhaner upore* had almost completely disappeared from Badamtoli and Narayanganj. Other changes have also been reported from the long-distance trade. Direct cash payment has declined sharply as most payments by e.g. rice *aratdar*s to distant wholesalers, are made largely through telegraphic transfer from bank to bank. However, transactions were generally partly settled at the time of initiation - typically 40 percent was paid immediately and the remaining 60 percent was settled usually within 7-15 days. Although the speed and security of transactions appear to have increased the problem of debt recovery (from buyers making credit purchases) remains a serious cause for worry. The relative abundance of grain supplies tends to accelerate credit-led sales, and unless mechanisms for recovery are adequate, can lead to large number of bankruptcies. Such a situation however, has not yet emerged.

## CONCLUSIONS

In the markets investigated, we found that significant changes have taken place in the nature of transactions. In advanced areas, transactions have been speeded up through a number of ways: (a) greater reliance on bank to bank transfers to settle payment for larger consignments in the (long-distance) inter-district, rice trade, replacing dependence on direct cash transactions, (b) greater availability of telephone connections (the number of connections increased from around 50 to around 250 in one advanced area market) and better roads, and (c) credit sales by paddy and rice *aratdar*s as the main mechanism to increase turnover.

In BA, traditional transactions entailing inter-linked exchange such as *dhaner upore* was found to have sharply diminished in importance. Similarly the nature of trade finance changed from seasonal, roll-over credit used to tie-in subordinate, paddy/rice procuring traders, to short-term, credit sales and purchases and cash transactions. There has been a lot of change in the nature of informal credit markets - generally more exploitative forms have declined in importance while those that remain appear to charge lower implicit rates of interest. Further, the power of the trader-landlord-transport cartel (referred to as the backward area hierarchy in the CM study) has been broken and the structure of trade has become "freer" and much more impersonal.

Major changes have been reported from the large, urban rice markets. The dominant role of markets like Badamtoli has withered with time, replaced by a large number of smaller markets that have sprouted up all over the Dhaka-Narayanganj belt

(Annex Table 1). The stiff competition has meant that even the remaining aratdars in Badamtoli are finding that their turnover has reduced sharply (by over 50 percent). The hugely increased competition has also resulted in some major markets being shut down completely - the paddy-rice market in Madanganj is a dramatic example of this.

The nature of transactions too has altered in these markets. The overwhelming dependence on tied, subordinate traders or agents for supplies that was pervasive of Badamtoli and Madanganj markets a decade ago, has been almost totally replaced by "free" trade. Long distance trade financing of paddy production through *dhaner upore* loans also appears to have perished.

There are a number of implications for our findings: (a) more impersonal markets have improved efficiency and competition. This is most evident in the backward area markets marked by the fall of the "hierarchy" as well as thickening of participation (Annex Table 2). The striking changes in market participation in advanced area markets already observed, is also symptomatic of the same phenomenon; (b) These changing market conditions have implications for the return to growers and other participants, and may serve to explain at least in part, the underlying causes leading up to the rapid spurt in rice production noted in the 1990s, and (c) it would appear that market forces are more powerful than traditional hierarchies based on market inter-linkages and domination over the local power structure, at least under conditions similar to that of rural Bangladesh.

# 1. INTRODUCTION

There have been major forces at work in the rural economy over the past decade and a half, with quite striking implications in particular for the rural food economy. On the production front, striking increases in foodgrain productivity have taken place ushering in an era of near self-sufficiency in rice. The incentive regime facing agriculture has undergone a major transformation, resulting in rapid technological change (widespread adoption of the Green Revolution technology and modern irrigation practices).[1] Significant improvements have taken place in physical infrastructure (rural roads, telecommunications and rural electrification) and in the delivery system of rural services, including financial and extension services. The rice market has also had to contend with the withdrawal/reduction of food subsidies, reforms of the Public Food Distribution System, trade (import) liberalization of rice and expanded production and marketed quantities.

The purpose of this paper is to explore rice market dynamics in the Bangladesh context for signs of a transition towards a more developed (impersonal) market structure. Platteau (1994) argues that traditional, personalized markets will not automatically give way to more advanced (impersonal) forms, in the face of e.g. market deregulation or liberalization. Indeed he suggests, that the imposition of market forms on unprepared soil could backfire, with serious consequences for development. On the other hand, Srivastava (1989) suggests that inter-linked exchange (based on personalized markets) can either sustain "precapitalist" relations or assist in their dissolution. In a more recent study, Crow and Murshid (1994) presented evidence to suggest that both these tendencies were present in two different, contrasting agricultural areas of Bangladesh. Fresh evidence from the Bangladesh rice market is presented here in support of our argument

[1] Mainly through structural adjustment policies and trade liberalization.

that a structural transition is underway with distinct signs of the dissolution of traditional market forms and their replacement by impersonal forces, and that these seem to be taking place "automatically".

## 2. METHODOLOGY

The data generated for this study has been obtained from a selective re-survey of the original Crow and Murshid (1994) study areas in late 2000 in order to have comparative evidence between two points in time separated by over a decade.[2] This has provided us with a rare opportunity to take a close look at various aspects of the rice market: structure, trade finance and forms of transactions. It is an opportunity to examine whether the charges of stagnation and lack of dynamism that is often levied on the countryside is an apt description of current realities, in the context of a specific market, namely the domestic rice market in Bangladesh.

The study areas relate to three distinct sets of markets. An agriculturally progressive or "advanced" Green Revolution area in Bogra in the North-west, an agriculturally "backward", mono-cropped *char* area in Noakhali in the South and the major urban market configurations in the Dhaka - Narayanganj belt, consisting of Badamtoli, Madanganj and Kamlaghat.

[2] The fieldwork for the original study was conducted in 198889.

## 3. BACKWARD AND ADVANCED AREAS: CHANGING CONTRASTS IN THE EXCHANGE REGIME

### A BACKWARD AREA: CHARS OF NOAKHALI, 1988

The backward area studied is in the South of Bangladesh in the district of Noakhali where we focused on two large foodgrain markets by collecting paddy and distributing rice, two local village markets within the hinterland of the collection markets, and a sample of rural households selected from the areas served by the village markets. One of the collection markets was found to dominate an area of *char* land (land newly formed by riverine action). When the area was first visited in 1988 it was found to be predominantly single-cropped with *Aman* paddy cultivation (from August to November) constituting the main agricultural activity. Land productivity was low, with a high incidence of tenancy and sharecropping, a predominance of absentee landlords and relative lack of alternative employment opportunities. The area was poorly served by infrastructure, services and institutions. Communication was difficult, very few development agencies or programmes were seen to operate here and access to schools, clinics and hospitals remained very limited.

Despite low yields and little apparent district-wide surplus there were sizeable exports of paddy from the *chars* in the months following the main *aman* harvest and imports of rice during 6-8 months of the year. Since the emergence of the *chars* in the 1960s there has been a rapid expansion of traders and village markets to procure paddy and distribute rice, which in turn led to the expansion of trading capital.

### TRADE CIRCUITS, CREDIT HIERARCHY AND TYPES OF CREDIT RELATIONS

The large *char* grain collection market stood at the apex of a hierarchy of financial relationships that served to channel cheap paddy from its hinterland to money-lending traders and absentee landlords. The hierarchy was found to operate through a network of trading-financial arrangements that extended up to the grower's level and sustained by its dominance over the local power structures (including the police and *lathials*), as well as control over transport from within and from the area. Its principal functions were to secure paddy supply for the traders at the apex (at a low rate) in exchange for financing cultivation costs and consumption during the growing stages of the crop.

There were two principal forms of trade or merchant capital operating in the backward area that could be viewed as the basic economic links binding the hierarchy - designated here by dhaner upore and dadon. The first is a pre-harvest price-fixing loan to cultivators to be repaid in kind at harvest. The second is a trade-tying working capital loan to a subordinate trader by a money-lending trader. Dadon was found to be common in many markets in Bangladesh while dhaner upore seemed to be more ubiquitous in single-cropped areas. Both forms depended critically on the lack of alternative sources of credit or working capital for the smaller traders and peasants and their acute poverty.

*Dadon* are rapidly circulating loans with a number of interesting features. In return for the loan the subordinate trader delivers to the lender the entire supply of paddy that he procures during the entire season (or until such time as the loan is repaid). The lender benefits in two ways: he has access to paddy supplies far in excess of what would be warranted by the amount of loan provided (i.e. supplies procured by own capital plus the loan), and secondly the price that he pays is typically lower than the comparable market price (Crow et al ).

The main elements of the credit-trade hierarchy as it influences the circulation of grain may be summed up as follows: At the apex are money-lending merchants and absentee landlords. The merchants (few in number) collect paddy and supply rice and other grocery items through two types of subordinate traders: paddy collecting traders and grocery stores. The money-lending merchants make dhaner upore loans (cash to be repaid in paddy) to the subordinate traders who then on-lend to peasants at a higher rate. Indeed, it is not unusual to find an additional layer of intermediaries between the subordinate trader and the peasant. A variation of the dhaner upore loan is the "advance purchase" usually made just a few weeks before harvest at a negotiated price in paddy. Cash-paddy repayment combinations were also reported to cash loans with the principal paid in cash and the interest in paddy. All these different forms basically solve a simple problem - essentially a principal-agent problem, with the money-lending trader operating as the principal and the different subordinate traders working as his agents. The role of the agents is two-fold. They bring superior information on the peasants to bear and ensure contractual compliance (of unequal contracts). The entire hierarchy is geared to achieving these fundamental goals. Table 1 below describes the different financial relations encountered in the backward area. Of these the first three directly serve the goals of the mercantile hierarchy, while the last serves to benefit the surplus farmer-landlord.

## THE TRUCK ASSOCIATION MONOPOLY

The big traders have been able to create a truck transport monopoly in the area that served to provide dual benefits: a higher freight rate than the free market rate and an ability to exclude traders from other areas to compete. This rather unusual feature allowed the hierarchy to segment the market even further (ref).

**Table 1 — Different Types of Financial Relations in the Backward Area**

| Type | Parties | Amount (Tk) | Terms (implicit r. i.) |
|---|---|---|---|
| Dhaner Upore ("money on paddy") | Sub-Trader to Poor Peasant | Usually 1000-3000 | Cash for paddy at harvest (100-180%) |
| Dadon | Big Trader to Small | 15000-100000 | All the small trader's procurement promised to the big |
| Advance Purchase | Trader to peasant | 1000-3000 | Cash loan for paddy at harvest (very high) |
| Paddy loans | Big Grower to Trader | 1000-50000 | Paddy loan repaid in cash at above market price |

Source: Crow and Murshid (1994)

## A GREEN REVOLUTION (ADVANCED) AREA: BOGRA, 1988

An advanced area of Bogra district that was studied stands out in sharp contrast with the Noakhali *chars* discussed above. The area is situated in the very old alluvium of the Barind Tract, unlike the still active *chars*, and is much more densely populated. The area is characterized by intensive irrigation development and the adoption of Green Revolution technology, in the 1980s. Multiple cropping is universal, communications are good and electrification was expanding quickly. Sharecropping was found to be rare with the predominant form of tenancy being in terms of fixed cash rents. The area posts a healthy surplus in both the *aman* and *boro* seasons.

In terms of credit related to the grain trade, very few cases of *dhaner upore* were found. There is some lending from rich to poor peasants but the most prominent form of loans were those from rich growers to traders and millers. These were usually kind loans extended as working capital that had to be repaid at the end of the season at the highest price of the season or at a pre-negotiated price (HMP loans)[3]. Short-term supplier's credit (*paikari baki*) is used widely to increase turnover and is given by millers to trader-brokers (*aratdars*). The main condition of these loans is that the *aratdar* may not buy from any other miller in the same market.

The main trading circuits identified show two distinct flows: a relatively small, local flow meant for the local market and a much larger flow catering to the deficit markets to the south and in Dhaka.

## CHANGING CONTRASTS IN THE TRADING REGIME, 1988-2000

The original Crow and Murshid study (CM study) identified three main contrasts in the exchange regime between the two types of areas:

- in the proportion of free and tied transactions in rice,
- in the number and types of intermediaries in the main trade circuits, and

[3] HMP refers to as "higher than or highest marketprice".

- in the form and direction of credit.

## NATURE OF TRANSACTIONS

The most striking contrast was found in the extent of tied and non-tied transactions in the advanced and backward areas and markets. Transactions of growers with traders in the former were largely untied while those in the latter exhibited considerable tying, mainly through sharecropping and *dhaner upore* loans[4]. Thus, over 92 percent of sales by growers in the advanced area were non-tied while this was only 30 percent in the backward area. A form of credit popular amongst surplus growers in advanced areas (mostly to processors and traders) was the HMP (higher-than-market price) loan in which the debtor pays back the creditor at the end of the season at the highest price of the season. In other words, the origin of capital in advanced areas is "free" agriculture while that in backward areas is primarily mercantile (big traders) or semi-feudal (large sharecropping landlords).

These contrasts remain even today but have diminished greatly in a number of ways. Sub-ordinate traders tied to urban trader-financier-brokers (TFB) who were central in channeling *dhaner upore* loans to poor cultivators in backward areas have all but ceased their lending functions. The incidence of *dhaner upore* remains significant[5] but the role of the TFB who used these as a well-structured mechanism to procure paddy supplies cheaply, no longer exists. The number of traders has sharply declined (by 60 percent) and those that have survived now transact principally in cash to procure supplies. One possible factor may be the lower returns to *dhaner upore* today compared to the situation in the late 1980s, making it unattractive to traders (but not to absentee

[4] These are loans in cash provided to cultivators before harvest to be repaid in kind (paddy). The rate reported from BA in 1989 was 7 maunds (maund=40 kg.).

[5] However, the source of such DUs is now primarily absentee landlords giving credit toheir own share-croppers.

landlords)[6]. Thus Table 3 shows the sharp drop in the *dhaner upore* rate, and if one considers the associated costs (including the risk of default) of channeling such loans to growers through intermediaries as before, then the returns on offer would appear to be paltry. It also almost certainly reflects the rapidly diminishing power of the TFBs in maintaining what used to be a profitable and tightly controlled hierarchy of surplus appropriation ten years ago.

**Table 2 — Regional Contrasts in the Exchange Regime; 1989-2000**

| | Advanced Area | Backward Area | Change (1989-2000) |
|---|---|---|---|
| Trade Circuits | Simpler | Complex (involved two additional layers of intermediaries) | Advanced Area: more complex circuit; BA circuit shortened/simplified |
| Credit | | | Advanced Area: low demand for kind for cash loans; BA: merchant capital no longer used for trade finance; hierarchy dismantled. |
| - source | Rich peasants | Merchants/Absentee landlords | |
| - type | Kind (paddy) for cash | | |
| - direction | To mills, traders and poor households | Mainly cash repaid in paddy To producers | |
| Market Institutions | | | Type of trade contracts in both Advanced Area and Backward Area "free" (not tied) and competitive. |
| - type of contract | Not tied (free) | Tied contracts | |
| - security | Impartial | Selective | |
| - transport | Competitive | Cartel | |
| - weights | Standard | Localised/hybrid | |

Source: Adapted from Crow and Murshid (1994)

**Table 3 — Changes in the *Dhaner Upore* Rate over Time**

| Year | Implicit DU price (Tk/md) | Market price (Tk./md) | % Loss to grower |
|---|---|---|---|
| 2000 | 182 | 215 | 15 |
| 1989 | 143 | 200 | 29 |
| 1975 | 83 | 115 | 28 |
| 1972 | 20 | 67 | 70 |
| 1953 | 10 | 13 | 23 |

[6] Transaction costs at the margin for absentee landlords providing DU loans to their own sharecroppers is small. It also helps in stabilising production levels and therefore lowers the risks associated with sharecropping.

In the advanced area, HMP loans have declined greatly. The bulk of these paddy loans provided useful working capital for medium and large processors (*chatals*) and mills. This demand appears to have now dried up with the rise of the paddy *aratdar* in advanced area markets who now supply the bulk of the paddy (and short-term credit) to the milling sector.

## MARKET STRUCTURE AND TRADE CIRCUITS

A second contrast between the two areas was in the market structure and in the circuits of trade. A decade ago the circuit in the backward areas was longer compared to that of advanced areas because of the need to engage additional intermediaries to finance and channel the *dhaner upore* loans originating from the TFBs (namely the paddy collecting subordinate trader). An interesting reversal has occurred a decade later. The *cycle bepari* (paddy collecting agent or faria) and the paddy *aratdar* have emerged as important players in the advanced area markets (thereby elongating the circuit). Previously, the role of the *cycle bepari* was essentially that of a small or micro processor cum trader using family labour to process the paddy (soaked, sun-dried and parboiled before husking in a mill) for ultimate sale to the rice *aratdar* or outside buyer. The role of the *cycle bepari* today is simply to buy directly from the grower for sale to the newly emerged paddy *aratdar*s.

By contrast, in backward areas, the near demise of TFBs and their tied, subordinate agents have shortened the circuit. Both these changes have had interesting repercussions on the nature and extent of trade finance - diminishing longer-period tied finance and replacement by cash or short-term trade credit. The old and new trade (and financial) circuits are shown below.

Quite apart from the question of elongation or shortening of trade/financial circuits, there is the question of the changing composition of different types of traders in the market and volumes transacted. There has been massive investment in milling capacity in the advanced areas over the last 10 years. In one of the markets examined (Dhupchachia), the milling-processing capacity increased from around 17000 MT to 44600 MT (i.e. by more than 150 percent). Some 2000 small processors used to operate in the advanced area market ten years ago. Today their numbers have come down to 50. There used to be over 200 Kanda beparis (micro processors) - these no longer exist. Bullock cart owners used to be engaged in this trade also acting as local buyers and sellers - their numbers have come down from around 1000 to less than 30 today. On the other hand the *Cycle bepari* and Paddy *Aratdar* have now emerged as principal actors in the paddy market, as already observed. The number of cy*cle bepar*is (faria or local trader) has increased from around 100 to over 5000 while the number of paddy *aratdar*s has increased from 5 to 35. *Chatals* (medium processors) no longer exist today as all of them have been converted to rice mills - further evidence of surplus accumulation. In the backward area markets, the reduced role of the TFBs has been matched by the rise of independent paddy collecting traders, unlike the tied subordinate traders of a decade ago.

**Table 4 — Changes in Numbers of Market Participants, 1988-2000**

(Dhupchachia Upazilla)

| Trader /Transport Type | Number 2000 | Number 1988 |
|---|---|---|
| Rice *aratdar* | 35 | 12 |
| Paddy *aratdar* | 35 | 5 |
| Crusher | 100 | 30 |
| *Cycle bepari* | 5000 | 100 |
| Micro processors | 50 | 2200 |
| Bullock carts | 30 | 1000 |
| Trucks | 50 | 10 |

## FORM AND DIRECTION OF CREDIT

The realignments in the structure of trade as described above has meant that the downward flowing trade finance (to growers) in backward areas no longer exists as has been the fate of the upward flowing HMP credit from growers to millers or traders, in advanced areas. Thus, the *dhaner upore*-led trade finance to growers has lost its significance in backward areas. In advanced areas, surplus growers are no longer able to transfer their price and storage risks on to medium processors or mills through HMP credit. The bulk of trade credit now available in both backward area and advanced area markets are short-term sales on credit (typically rolled over every 7-15 days and settled at the end of each trading season) provided by paddy *aratdar*s, millers and wholesalers to their customers. Transactions at both ends of the trading circuit, i.e. with growers on the one hand and retailers on the other, are strictly in cash.

These realignments in the trade circuits and trade relationships however, have not been preceded by any fundamental changes in the structure or conditions of (rice) production in the two areas, where the level and kind of agricultural technology in use has remained essentially the same.

There has thus been a shift in the relationship between traders, millers/processors and growers. Direct purchase from the primary market has now given way to bulk purchases (frequently on credit) from the paddy *aratdar* in advanced areas - thereby reducing transaction costs and speeding up turnover. Similarly, growers now rarely sell directly at the market but prefer to sell to the *cycle bepari* from his homestead. Keen competition at the grower level assures that market prices are paid. This has also served to reduce the returns to large surplus farmers in advanced areas. Previously, they would sell paddy (frequently on HMP) to poor peasants and *chatal* and rice mills. Today, sales are in cash, especially to the latter.

The major change in the backward areas has also been at the lower levels of the market tier - amongst growers and TFB and their intermediaries. Credit no longer flows downward from TFBs but moves upward from paddy *aratdars* and millers.

**Figure 1 — Advanced Area Trade Circuit, 1989**

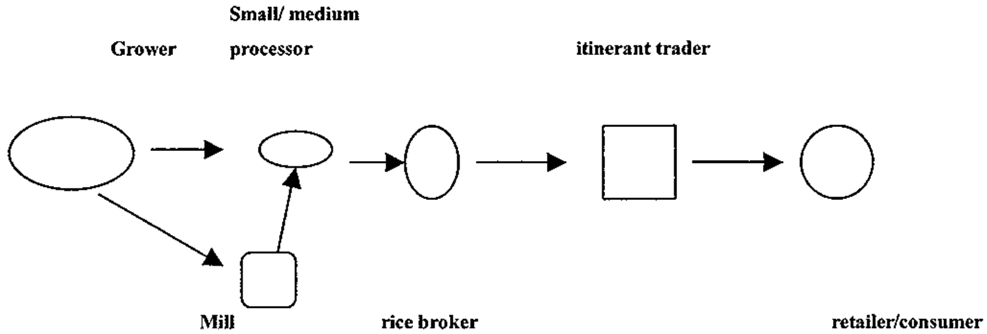



**Figure 2 — Advanced Area Trade Circuit, 2000**

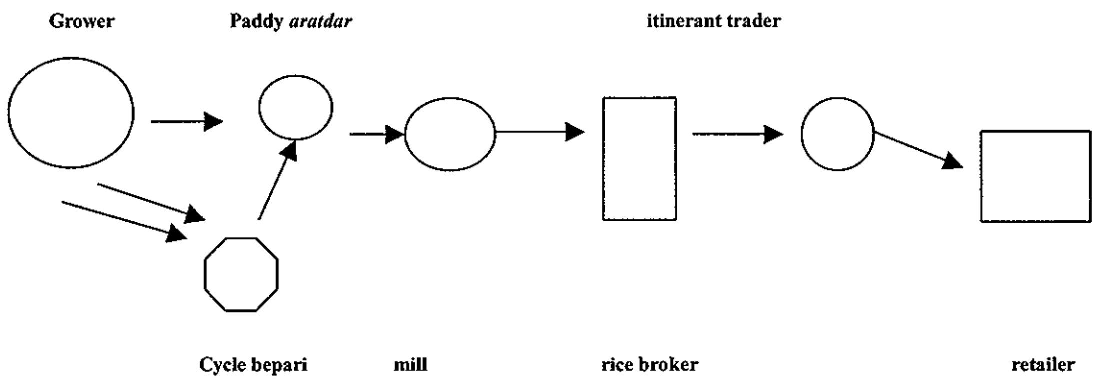


**Figure 3 — Backward Area Trade Circuit, 1989**

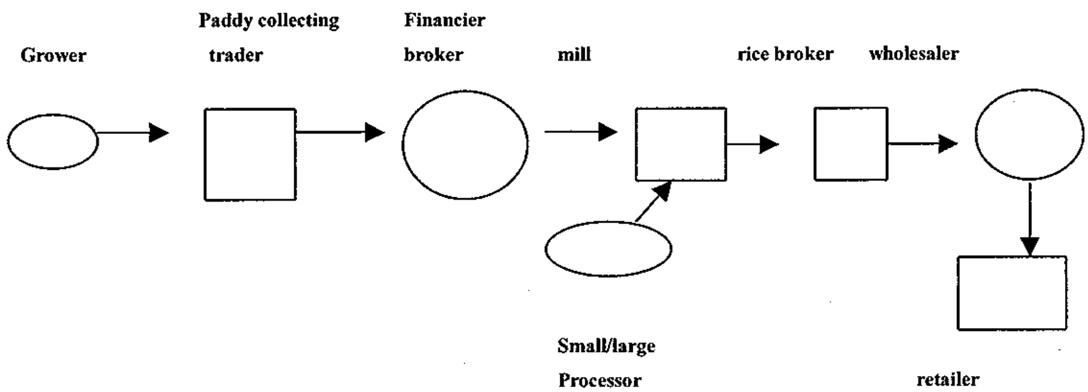
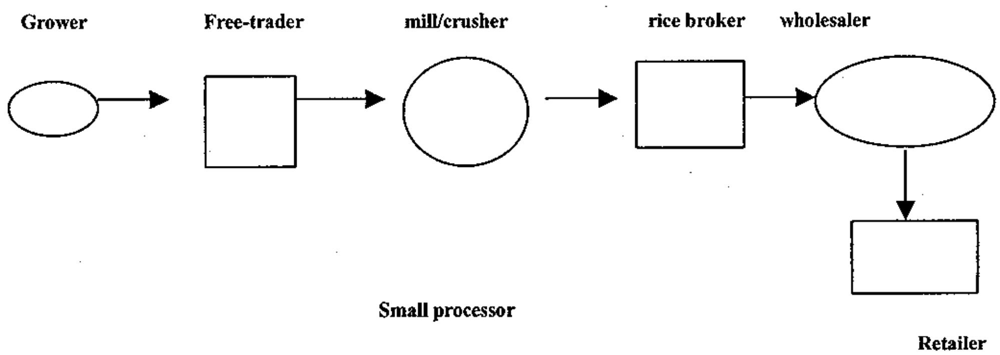



**Figure 4 — Backward Area Trade Circuit, 2000**



## 4. TRADE TYING IN LONG DISTANCE TRADE

Trade tying loans, generally known by the generic name of *dadon,* have been reported from many major markets in Bangladesh, e.g. Badamtoli, which used to be one of the largest wholesale markets of the country. Similarly large markets in Narayanganj (e.g. Kamlaghat and Madanganj, just outside Dhaka) also reported widespread use of *dadon* as well as *dhaner upore* loans given by large traders to subordinate traders as a key business strategy to segment the market. For example, traders in Badamtoli estimated in 1988-89 that half of their colleagues used *dadon* for itinerant merchants bringing grain in from rural areas. These arrangements have significant consequences for prices paid and received by different buyers and traders (Crow et al, 1991).

Revisiting these areas in 2000 we were surprised to find that both *dadon* and long distance *dhaner upore* had almost completely disappeared from Badamtoli and Narayanganj. In fact Badamtoli was found to be in severe decline, and of the two Narayanganj markets studied, the major paddy market (Madanganj) had completely disappeared. These changes are striking and remain incompletely understood. Possible explanations relate to intense competition from other newly developed markets in the Dhaka-Narayanganj belt, the inability of traditional, slow riverine markets like Madanganj and Kamlaghat to compete with markets with reliable and speedy road communication links, and the suffocation suffered by markets like Badamtoli (which was also built on the river) by growing traffic log-jams and urban congestion. The traditional dependence on *dadon* and *dhaner upore* by traders to sustain market operations were clearly not enough to ensure ultimate survival.

Other changes have also been reported from the long-distance trade. Direct cash payment has declined sharply as most payments by e.g. rice *aratdar*s to distant wholesalers, are made largely through telegraphic transfer from bank to bank. However, transactions were generally partly settled at the time of initiation - typically 40 percent was paid immediately and the remaining 60 percent was settled usually within 7-15 days. Although the speed and security of transactions appear to have increased the problem of debt recovery (from buyers making credit purchases) remains a serious cause for worry. The relative abundance of grain supplies tends to accelerate credit-led sales, and unless mechanisms for recovery are adequate, can lead to large number of bankruptcies. Such a situation however, has not yet emerged.

## 5. THE NATURE OF THE TRANSITION – A DISCUSSION

This paper began from the observation that there have been major changes in the policy regime facing agriculture and the rural economy over the last 10-15 years. At the same time, significant structural and demographic shifts have taken place, e.g. resulting in a declining contribution of agriculture to GDP on the one hand, and within agriculture, a rising share of non-crop and non-farm output. These are perhaps early indications of a process of transition that is already underway in rural Bangladesh that remains incompletely understood. This paper represents an attempt to further this understanding by focusing on the principal rural market in Bangladesh, namely the domestic rice market.

At this point it is necessary to discuss the meaning of the word transition as used in the context of market performance. It is instructive to refer to North who says that the dilemma posed by impersonal exchange, is central to the major issues of development; and again, that "the inability of societies to develop effective, low cost enforcement of contracts (that is, impersonal contracts) is the most important source of both historical stagnation and contemporary underdevelopment in the third world" (North, 1990: 54). Thus, the concept of transition principally relates to a shift from traditional, personalized market relationships to impersonal exchange, usually enabled by a set of low cost, formal and informal rules and enforcement mechanisms. Thus, market roles that are of special interest relate to three distinct aspects: (a) reduction in information asymmetries, (b) enabling low-cost contract enforcement/dispute resolution, and (c) enhancing competition. It is this notion of transition that is relevant in the context of the findings presented in the paper.

In the markets investigated, we found that significant changes have taken place in the nature of transactions. In advanced areas, transactions have been speeded up through a number of ways: (a) greater reliance on bank to bank transfers to settle payment for larger consignments in the (long-distance) inter-district, rice trade, replacing dependence on direct cash transactions, (b) greater availability of telephone connections (the number of connections increased from around 50 to around 250 in one advanced area) and better roads , and (c) credit sales by paddy and rice *aratdar*s as the main mechanism to increase turnover.

In backward areas, traditional transactions entailing inter-linked exchange such as *dhaner upore* were found to have sharply diminished in importance. Similarly the nature of trade finance changed from seasonal, roll-over credit used to tie-in subordinate, paddy/rice procuring traders, to short-term, credit sales and purchases and cash transactions. There has been a lot of change in the nature of informal credit markets - generally more exploitative forms have declined in importance while those that remain appear to charge lower implicit rates of interest. Further, the power of the trader-landlord-transport cartel (referred to as the backward area hierarchy in the CM study) has been broken and the structure of trade has become "freer" and much more impersonal.

Major changes have been reported from the large, urban rice markets. The dominant role of markets like Badamtoli[7] has withered with time, replaced by a large number of smaller markets that have sprouted up all over the Dhaka-Narayanganj belt (see Annex Table A1). The stiff competition has meant that even the remaining *aratdars* in Badamtoli are finding that their turnover has reduced sharply (by over 50 percent). The hugely increased competition has also resulted in some major markets being shut down completely - the paddy-rice market in Madanganj is a dramatic example of this.

The nature of transactions too has altered in these markets. The overwhelming dependence on tied, subordinate traders or agents for supplies that was pervasive of Badamtoli and Madanganj markets a decade ago, has been almost totally replaced by

[7] Badamtoli was once referred to as the "Central Market" in Bangladesh largely determining rice prices for the country as a whole (Ravallion,).

"free" trade. Long distance trade financing of paddy production through *dhaner upore* loans also appears to have perished.

While evidence on the nature of the transition seems quite strong across a number of markets, it is less clear what the underlying factors have been to which these could be attributed. There is a strong presupposition that changes in the rice supply regime has ushered in an era marked by greater marketed quantities (including imported rice) - in part induced by higher productivity, but also by trade liberalization and agricultural reforms - thus reducing the former pre-occupation of traders with ensuring adequate supply. Such concerns are likely to have been replaced by the need for rapid disposal of supplies as reflected in the greater reliance on credit-sales - more research is clearly needed in this context. Similarly, further investigation is also needed to explore the institutional factors that have facilitated these changes - greater availability of (cheaper) credit, improvement in financial intermediation, solution to the market-order problem (e.g. through greater cooperation amongst traders), better information flows, basic infrastructure, security of transactions and law and order. A third set of issues that is particularly relevant to the backward area relates to the breakdown of the hierarchy and the trend towards dissolution of the underlying power structure.

# ANNEX I — STRUCTURAL ADJUSTMENT POLICIES (SAPS)

The impact of SAPs on Bangladesh agriculture and on market performance may have been quite profound. These are briefly reviewed below.

## GENERAL

- *Exchange rate policies* - Generally the Bangladesh currency has been edged towards its equilibrium rate of exchange, making agricultural imports (inputs, food) more expensive and exports cheaper. More expensive inputs could slow technological change while cheaper exports make agriculture more competitive.
- *Trade liberalization policies* - Reduction of tariffs and removal of quantity restrictions - have occurred across the board and have had a profound impact on agricultural input imports and food security (the latter through private rice imports in the face of shortages). Compared to manufacturing, agriculture receives much less protection, with domestic real prices of most commodities rising slowly, if at all.
- *Monetary/Credit policies* - Credit available for agriculture has dwindled

## SECTOR-SPECIFIC SAPS

- *Withdrawal/reduction of input subsidies (e.g. fertilizers)* - Since the benefit of fertilizer subsidies were not reaching the farmers and availability had become a big problem, withdrawal of subsidy on fertilizers probably increased usage and yields - the labour market impact, if any, was indirect.
- *Privatization of the fertilizer distribution system* - The fertilizer distribution system went through major reforms in the late 80s-early 90s when the monopoly role of the BADC was removed from wholesale trade and fertilizer distribution; non-urea imports were also opened up to private imports and distribution. There was some

reversal of policy after the crisis of 1994-95, with the introduction of a system of distribution through authorized (licensed) dealers operating within their own districts (and selected by a National Coordination Committee).

- *Withdrawal of a ban on private sector imports of irrigation equipment* - This led to a surge of imports of irrigation equipment in the late eighties-early nineties and a spurt of growth in the crop sector.
- *Withdrawal of ban on rice/foodgrain imports by the private sector* - The private sector has moved quickly and aggressively to this sector. In 1998-99, more than 3 m MT of rice was imported from India privately.
- *Rolling back of BADC* - From 1978 the largest parastatal in the agricultural sector gradually phased out its operations from fertilizers (imports, sale, distribution), irrigation and seeds.
- *Reform of the Public Food Distribution System* - Rural rationing was abandoned and there was a policy shift towards distribution through safety-nets (FFW, VGD). Subsidized sales from the PFDS have dwindled; stabilization operations like OMS have been retained.
- *Rice procurement and price supports* - These are additional objectives of the PFDS. Some activities are pursued although their impact (on producer prices) is considered weak.
- *Seed markets* - The National Seed Policy, 1992 provided for privatization of seed production beyond the foundation stage; the GOB monopoly on five 'notified' crops has been retained (including rice).

# ANNEX TABLES

**Table A1 — New Rice Markets in the Dhaka-Narayanganj Belt**

| **Wholesale Market for Rice** | **Number of *Aratdars*** |
|---|---|
| Mirpur 1 | 100 |
| Kachu Khet | 160 |
| Jatra Bari | 150 |
| Mukda | 30 |
| Malibagh | 125 |
| Badda | 40 |
| Fatullah | 50 |
| Keraniganj | 80 |

**Table A2 — Some Indication of Change in Market Participation in Two BA Markets**

| **Market Actor/Facility** | **2000** | **1988** |
|---|---|---|
| Rice *aratdar* | 47 | 25 |
| Paddy *aratdar* | 12 | 35 |
| Crushers | 120 | 75 |
| Buying *bepari* | 200 | 150 |
| Supplying *bepari* | 100 | 85 |
| Rice mills (no.) | 40 | 19 |
| Capacity (MT) | 305 | 180 |
| Trucks (no.) | 5 | 2 |
| Telephone connections | 30 | 15 |

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