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**EVOLVING FOODGRAIN MARKETS
AND FOOD POLICY
IN BANGLADESH**

by

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Funded under USAID Contract No. 388-0027-C-00-9026-00

May 1994

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1

Overview

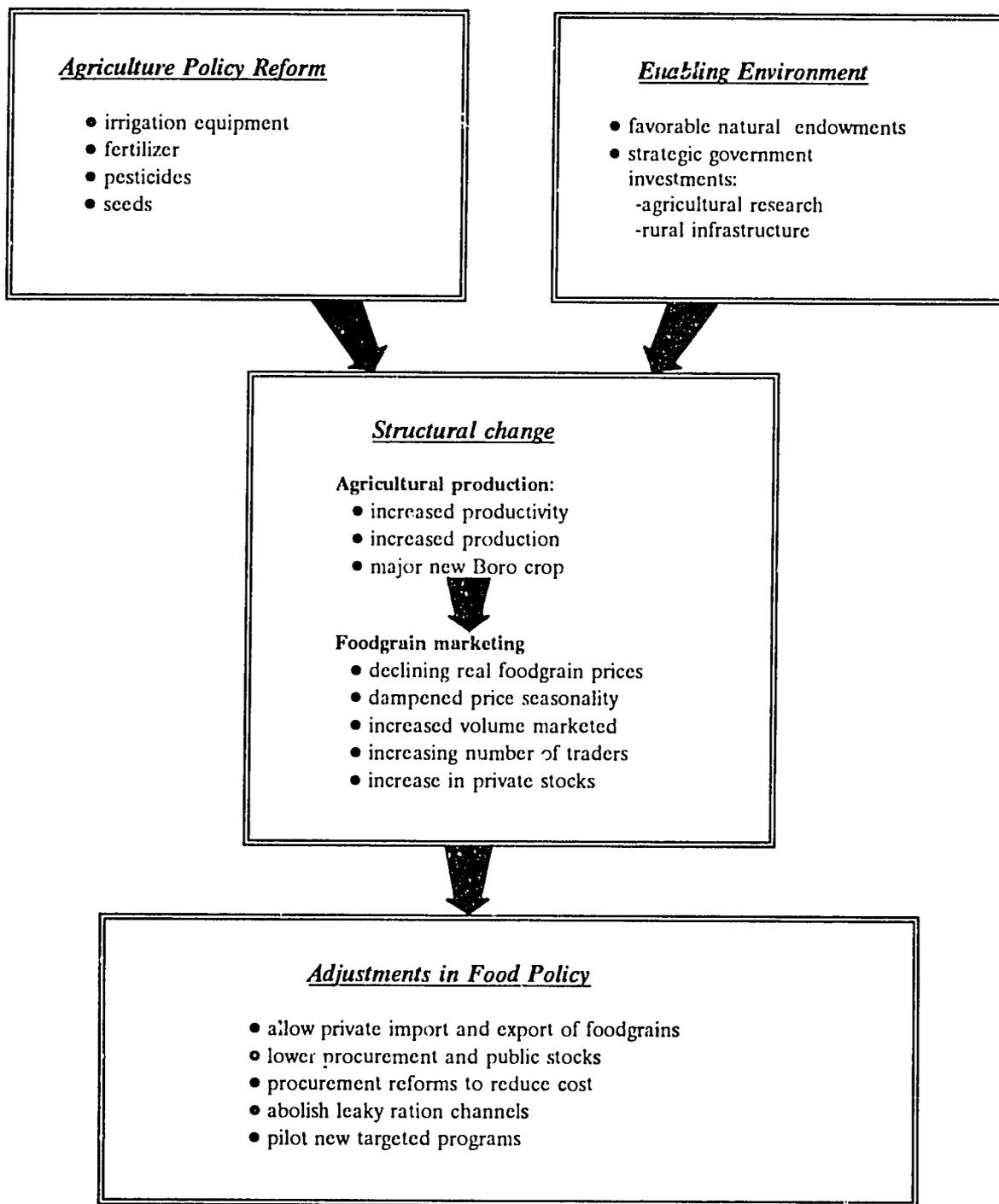
Foodgrain markets have grown rapidly in Bangladesh, particularly in recent years. Foodgrain production has doubled, while marketed quantities have increased by a factor of six in the twenty years since independence. In the process, the structure of production and marketing have undergone a fundamental transformation. While debate in the early 1970's focused on high prices and food shortages, today instead discussion centers on low rice prices and on prospects for export.

Dramatically increased agricultural productivity has fueled steady growth in rice production over the past two decades. Farm incomes have grown as a result, with rice, the backbone of Bangladesh's economy, accounting for 25% of GDP and 90% of all agricultural growth over the past twenty years. Because foodgrain production has grown faster than population, real foodgrain prices have fallen substantially in recent years. This provides much-needed relief for the poor, who spend 40% of their income on rice alone and 45% on all foodgrains. Though at least 35 million people in Bangladesh remain underfed, a range of recent evidence suggests perceptible improvement nutritional status of the poor over the past five years (Ahmed 1993, FAO 1992, Helen Keller Intl. 1993, Rahman and Sen, 1993). Rapid growth in Bangladesh's foodgrain production has far-reaching consequences - for national economic growth, for welfare of the poor, for development of foodgrain markets, and consequently for government food policy.

Recent policy reforms are both a consequence and a cause of Bangladesh's rapidly maturing foodgrain markets (Figure 1). Major reforms in agricultural input markets have triggered rapid increases in farm productivity and in foodgrain production. Growing production, in turn, has led to major structural changes in foodgrain marketing - dramatically increased marketing volumes, falling real foodgrain prices, and substantial growth in privately held grain stocks.

These structural changes in foodgrain markets have enabled a series of major recent adjustments in food policy. A growing production surplus motivated government to open up export and international trade to private foodgrain importers and exporters. Falling real foodgrain prices have enabled government to prune costly and wasteful ration channels without penalizing the poor. The growth in private rice marketing and privately held rice stocks have allowed government to reduce its own foodgrain stocks, reduce procurment and at the same time streamline procurement procedures. As a consequence of these recent changes, the cost of government food subsidy has fallen considerably, from

Figure 1—Policy reforms: consequence and cause of maturing foodgrain markets



421 crore taka (\$105 million) in 1988/89 to 168 crore taka (\$42 million) today (Ahmed et al, 1992). The roughly 254 crore taka (\$64 million) in annual savings from these reforms now permit experimentation with new targeted programs for the poor, such as Government's recently introduced Food for Education program. Both food markets and food policy continue to evolve.

This paper describes, in more detail, the recent transformations that have taken place in foodgrain production, marketing and in food policy. After reviewing the consequences for consumers and farmers, the paper projects forward to explore implications for future government involvement in food markets.

2

Structural Change in Production and Marketing

ENABLING ENVIRONMENT

Bangladesh confronts the daunting challenge of feeding its 115 million people, most of whom are very poor. Given average earnings of \$210 per capita, and a highly skewed income distribution, roughly half of all Bangladeshis cannot afford an adequate diet (Rahman and Sen 1993, A. Ahmed 1992)

Yet Bangladesh is a wealthy country. A natural greenhouse, Bangladesh is endowed with fertile soil, natural rejuvenation via annual monsoon flooding, and a favorable climate. Irrigation water is a plentiful and easily exploitable resource. Heavy rainfall and a favorable geological structure result in readily accessible aquifers with virtual 100% recharge. Because the water table lies within 6 to 12 meters of the surface over most of the country, inexpensive shallow tubewells, low-lift pumps and manual treadle pumps account for over 70% of all irrigation. Bangladesh's principal mineral resource, its natural gas, also supports agricultural production. It fuels domestic production of chemical fertilizer as well as generating the inexpensive electrical power available throughout much of rural Bangladesh.

To capitalize on these natural endowments, Bangladesh has invested strategically in two key areas, in agricultural research and in rural infrastructure. Early and sustained investments in adaptive agricultural research produced a stream of new high-yielding varieties (HYVs) suitable for both irrigated dry season cultivation and for the rainfed Aman crop. At the same time, major investments in rural electrification, roads and communications infrastructure have greatly enhanced productive potential and spatial integration across rural Bangladesh (Ahmed and Hossain 1990). New agricultural technology, together with Bangladesh's natural endowments and a growing network of rural infrastructure, have laid the foundation for rapid recent expansion in dry-season irrigated agriculture.

POLICY REFORM IN AGRICULTURE

Subsequent input market reforms have made the new foodgrain technology accessible and attractive to farmers, triggering an enormous spurt in foodgrain production over the past five to ten years. The removal of import duties and siting restrictions on shallow tubewells (STWs), in 1988 early 1989, stimulated a surge in minor irrigation works. The parallel removal of 30% subsidies on competing deep tubewells further accelerated the strong move to STWs over much of Bangladesh (Figure 2).

Fertilizer distribution has been privatized and liberalized, in the process making fertilizer widely available to farmers. Privatization of distribution and import has occurred gradually, over the past decade and a half, as a network of 130,000 dealers has taken over wholesale and retail distribution of fertilizer from the Bangladesh Agricultural Development Corporation. Price subsidies have been lifted, too, though more abruptly, over the past two years in the case of triple super phosphate (TSP) and muriate of potash (MP). This has caused some substitution among fertilizers, particularly an increasing use of single super phosphate (SSP) as a substitute for TSP (Figure 2). Even at today's higher prices, Bangladeshi farmers earn high returns on additional fertilizer applications. Today, at unsubsidized prices, an additional 1 taka in fertilizer will generally increase paddy yields and the value of output by 2 to 3 taka, though with variations across crops and nutrients (Chowdhury 1992, Baanante et al. 1993). Though use of TSP and MP slumped slightly during 1992 and 1993, when rice prices fell unexpectedly by about 25%, the return to normal rice prices, coupled with high returns to fertilizer use and increasing pressure to exploit Bangladesh's considerable remaining yield gap suggest that fertilizer demand and use will resume its rapid growth. To date, the net result of liberalization in fertilizer markets has been a 260% increase in fertilizer use since 1980 (Figure 2).

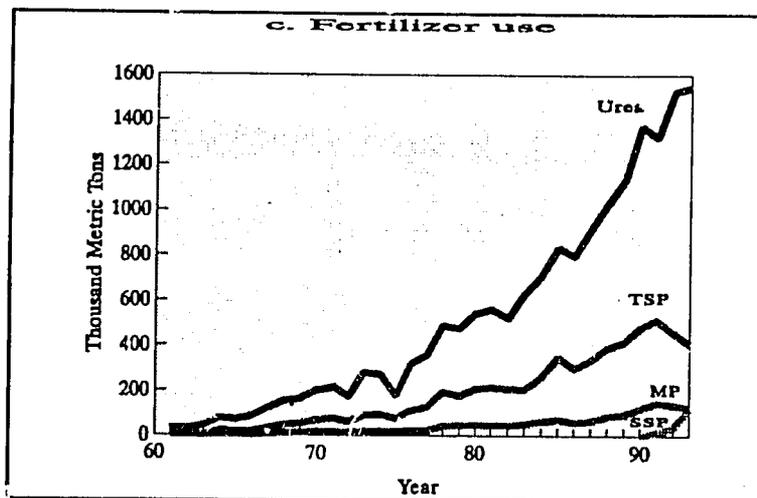
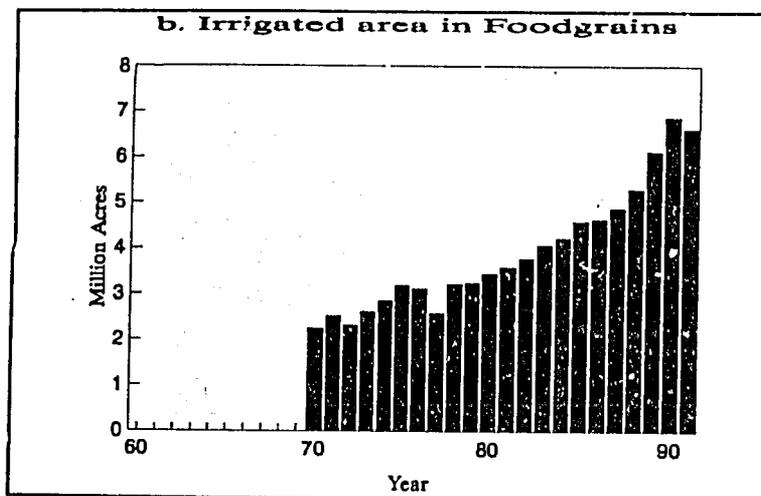
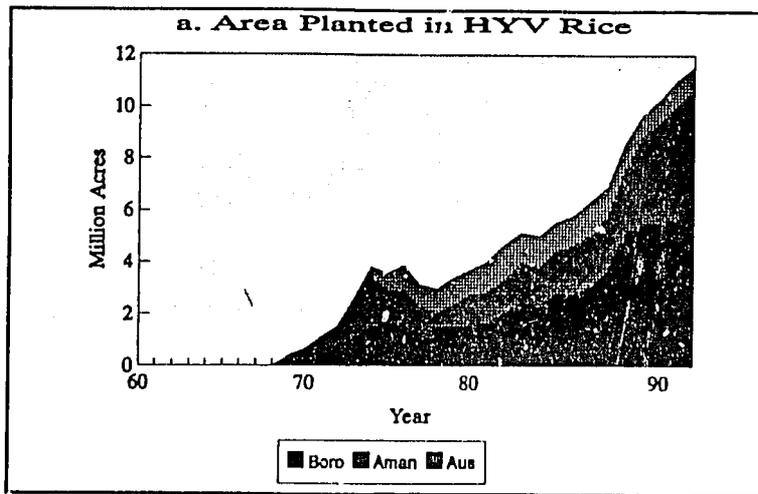
Pesticide import has been liberalized since 1989. And the new National Seed Policy, enunciated in 1992, provides unrestricted import of seeds other than those of eight controlled commodities. For nonfoodgrains, the unrestricted access to imported seeds can only enhance efforts at agricultural growth through crop diversification.

Together, these input market reforms generated a major surge in input availability and use. The impact on rice production has been substantial. Recent estimates suggest that, collectively, the input market reforms have increased rice production by about 5 million metric tons per year, raising output 35% higher than it would otherwise be (R.Ahmed 1993). Input market reforms have greatly expanded access to modern farm technology - irrigation equipment, fertilizer and seeds. In doing so, these reforms have been instrumental in actuating Bangladesh's considerable agricultural potential.

STRUCTURAL CHANGE IN PRODUCTION

Agricultural growth, over the past 20 years, has centered on dry season foodgrain

Figure 2-Input use in agriculture



production, particularly irrigated rice. In fact, foodgrains account for virtually all of the growth in gross farm revenue since independence (Mahmud, Rahman and Zohir, 1992). Rice alone has accounted for over 90% of that growth. The big surge in winter season Boro rice production has brought with it a decline in area planted with pulses, oilseeds and other traditional dry-season crops, though value and output have remained roughly constant. Because of rapid growth in rice, coupled with stagnation in nonfoodgrains, agricultural growth in Bangladesh has generated a production structure increasingly concentrated on rice.

Among Bangladesh's three major rice crops, the dry-season Boro crop has dominated growth in rice production (Figure 3). Since independence, Boro rice production has grown at over 7% per year, compared to only 2% for the Aman crop and -1% for Aus. As a consequence, the pattern of production seasonality in foodgrains has altered dramatically. The two winter season foodgrains, Boro rice and wheat, accounted for only 5% of annual foodgrain production in 1972. Yet today they account for over 40%.

The new irrigated HYV rice technology has stimulated substantial growth in input markets by increasing the demand for farm labor as well as purchased inputs of fertilizer and pesticides. Labor demand per hectare increases by about 50% with the shift to HYV packages, while fertilizer use jumps by over 300%. Similarly, demand for irrigation equipment has increased perceptibly since import liberalization 1988. Since then, irrigated area has grown by about 3% per year compared to only 0.5% per year in the 1960s and 1970s. Because farmers harvest Boro paddy at the onset of the rainy season, keeping quality and storage is difficult. Consequently, most prefer to sell their Boro paddy, while retaining Aman for long-term storage. As a result, growth in Boro rice production has stimulated even faster growth in volumes marketed. Overall, the HYV technology has contributed to greatly expanded trading activity in both input and output markets.

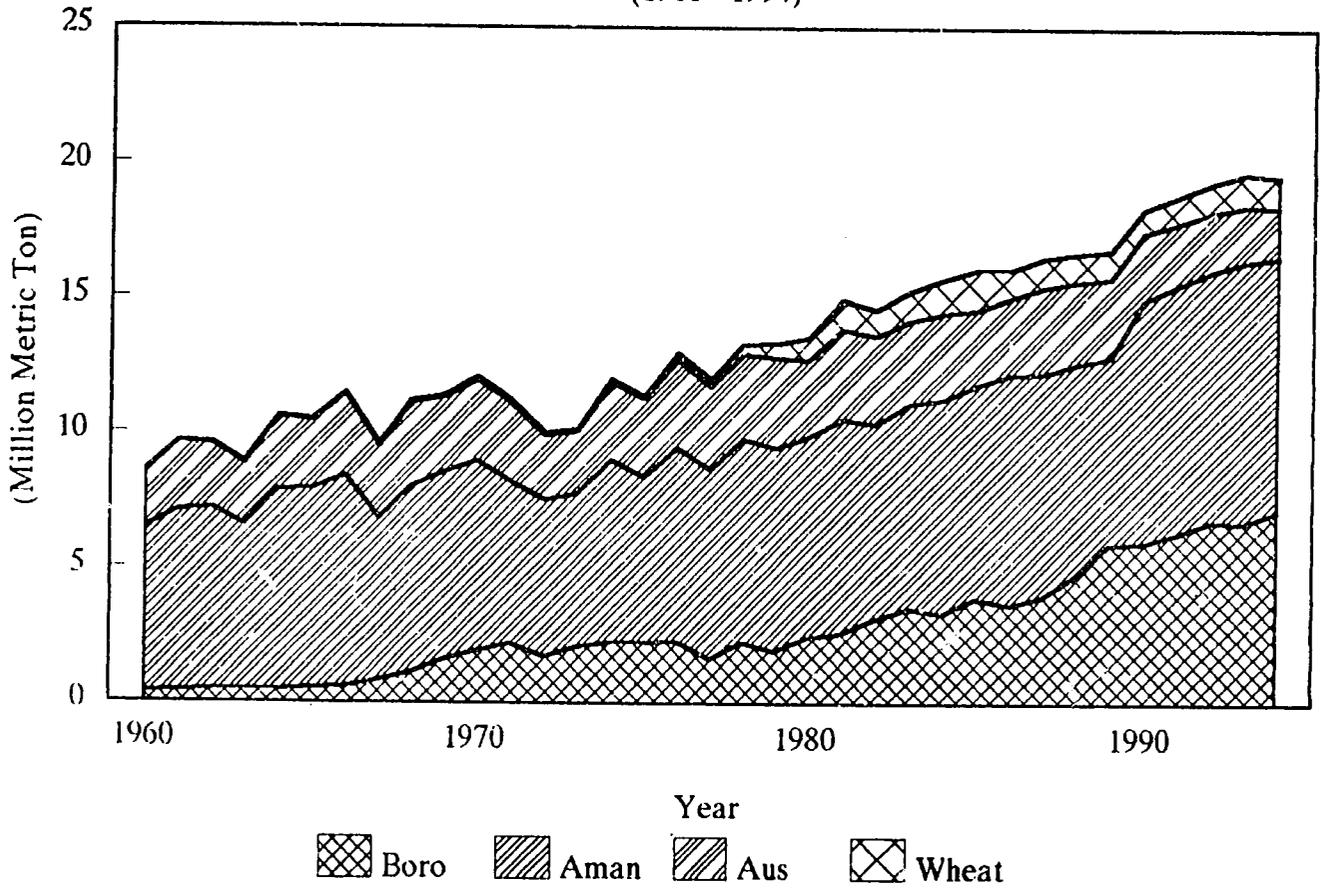
MARKETING REVOLUTION

Driven by emergence of the Boro rice crop, the revolution in dry season irrigated rice production has spawned a marketing revolution of even greater proportion.

Growing marketed surplus. Twenty years ago, farmers marketed only 15% of their rice production. Today they sell over half (Chowdury 1992). As a result, the doubling of production over the past twenty years has generated a far faster increase in marketing. Volumes sold have increased by a factor of six. In part, this accelerated growth in rice marketing has arisen because increased yields have enabled more farmers to produce a surplus for sale over and above their own family's consumption needs. Twenty years ago, a farmer growing only a local variety Aman crop required 1.2 acres to feed a family of six. Today, with HYV Boro and the same local Aman, that same family can attain foodgrain self-sufficiency with only 0.4 acres of land. Further accelerating growth in marketing is the great difficulty farmers face in drying and storing Boro paddy. Because farmers harvest

Figure 3—Production of Foodgrains

(1960–1994)



Source : BBS

Boro rice in the early part of the rainy season when drying is very difficult, Boro paddy and rice do not keep well. Aman paddy, harvested during the dry season, will last several years in onfarm storage, while farmers must dispose of their Boro paddy over the course of a single four-month marketing season. As a consequence, farmers, who market only about one-third of their Aman production, sell fully two-thirds of their Boro crop (Chowdhury 1994). The rise of Boro cultivation has greatly accelerated growth in rice marketing.

Increased competition. Numbers of traders and the intensity of competition have increased rapidly since independence, in tandem with the six-fold increase in volumes marketed. Though aggregate national figures are not available over time, evidence from key markets in Dhaka will serve to demonstrate the trend. The largest rice market in Bangladesh, the Badamtoli wholesale market in Dhaka, opened with only 4 wholesalers in 1968. It now houses over 300. Meanwhile, rival markets have sprung up in Mohamedpur, Savar and other surrounding areas. Over 50,000 rice mills now operate throughout Bangladesh (Table 1). In addition, a very labor-intensive marketing network - of itinerant traders, fairas, bepari, wholesalers, kutials and crushers - employ roughly 90,000 throughout the country (Chowdhury 1992). Formerly thin, fragmented rice markets are now thick with competitors.

Improved market integration. Transport and communications have improved perceptibly in Bangladesh in the past 20 years. Direct dial telephones integrate growing foodgrain markets in ways unimagined two decades ago. Large investments in rural roads have improved access to markets by both traders and farmers. Recent studies have documented the important competitive stimulus in rice markets that ensues after roads open up formerly isolated regions to competition (Ahmed and Hossain 1992). Similarly, a silent revolution has occurred in water transport, an unanticipated fringe benefit of the rapid growth of diesel driven shallow tubewells. By transferring diesel engines from shallow tubewells to country boats, during the monsoon season when they are not required for pumping water, boat operators have motorized more than half of all country boats over the past ten years (Palmer et al. 1992). The conversion of country boats from "slow and cheap" to "fast and cheap" sources of rural transport has further infused dynamism in Bangladesh's transportation network. At the same time that transport networks have improved, production surpluses have surfaced, first in one region and then the next. This sequential rise and fall of high-growth rice zones has stimulated a growing and evolving pattern of inter-regional trade (Goletti 1993). As a result, average distance marketed has grown from 50 miles in the early 1980's to over 80 miles in 1990 (Chowdhury 1992). Bangladesh's intricate rice marketing network has thickened as it grows.

Private stocks increase. Along with growing production, privately held grain stocks have increased. Per capita private stocks have roughly doubled since the late 1960's (Chowdhury 1992). In absolute terms, they have grown far faster, particularly since the late 1980's. In the lean season, just before Aman harvest, private rice stocks typically exceed those held in government godowns by about a factor of three. And in the post-harvest months of January and June, private rice stocks alone exceed total government

foodgrain stocks by a factor of five. Among private holdings, farm stocks dominate. On-farm stocks account for about 75% of all holdings, while trade stocks account for the remainder (Table 2).

Dampened price seasonality. The introduction of a winter rice crop has completely altered the pattern of price seasonality in Bangladesh. Instead of a single price peak in July, before the Aus harvest, twin peaks have emerged, the first in September-October, before the Aman harvest, and the second in April-May, before the Boro harvest. More important, the amplitude of seasonal price movement has diminished. In the early 1970's, the peak-to-trough price spreads were about 25%. Today seasonal price increases lie closer to 10 or 15% (Figure 4). Both the frequency and severity of seasonal price hikes are now greatly reduced.

Falling real foodgrain prices. Production increases in excess of population growth have led to steadily falling real prices of foodgrains (Figure 5). While foodgrain production has grown at a rate of 2.6% per year over the past two decades, population has grown more slowly, at 2.2%, and has, in fact, decelerated. Buoyant production in the face of slowing population-led demand has led to a softening in foodgrain prices. The new, more productive rice technology has doubled yields and substantially raised output, leading to lower unit production costs and to lower consumer prices.

Figure 4—Changes in Price Seasonality,
Detrended Index of Coarse Rice Price

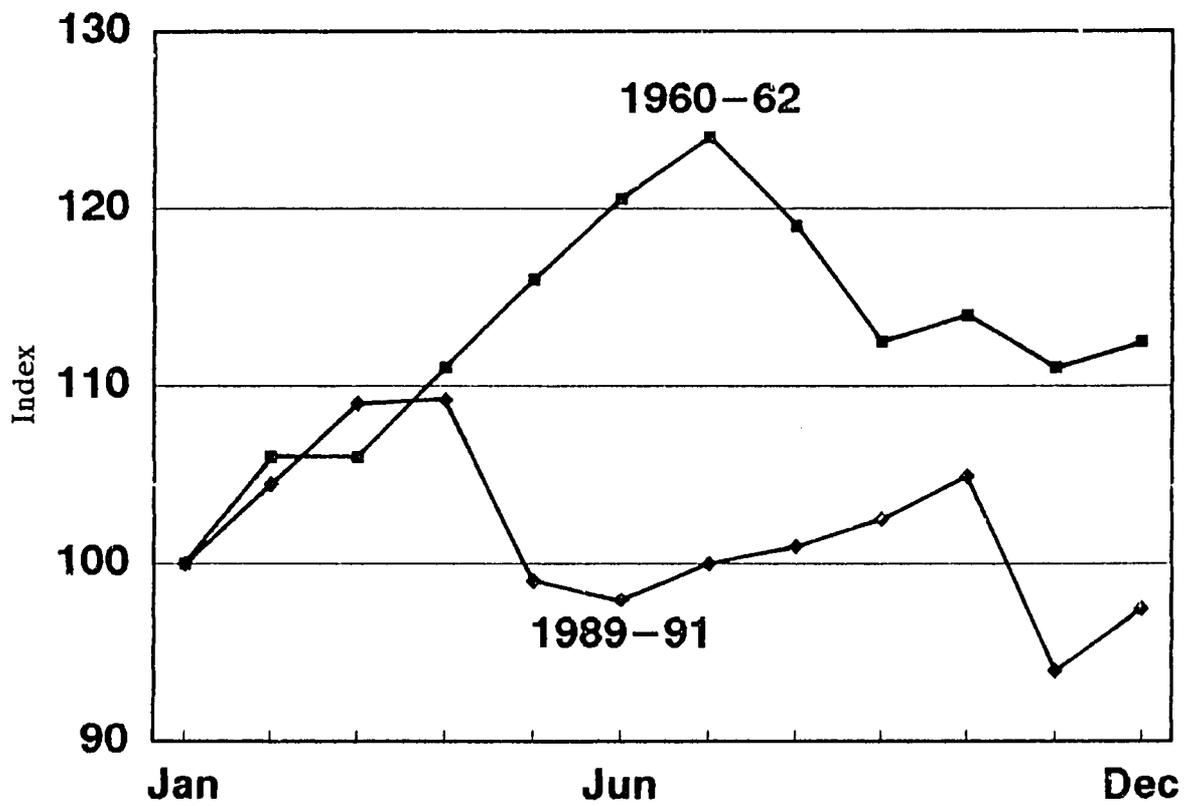
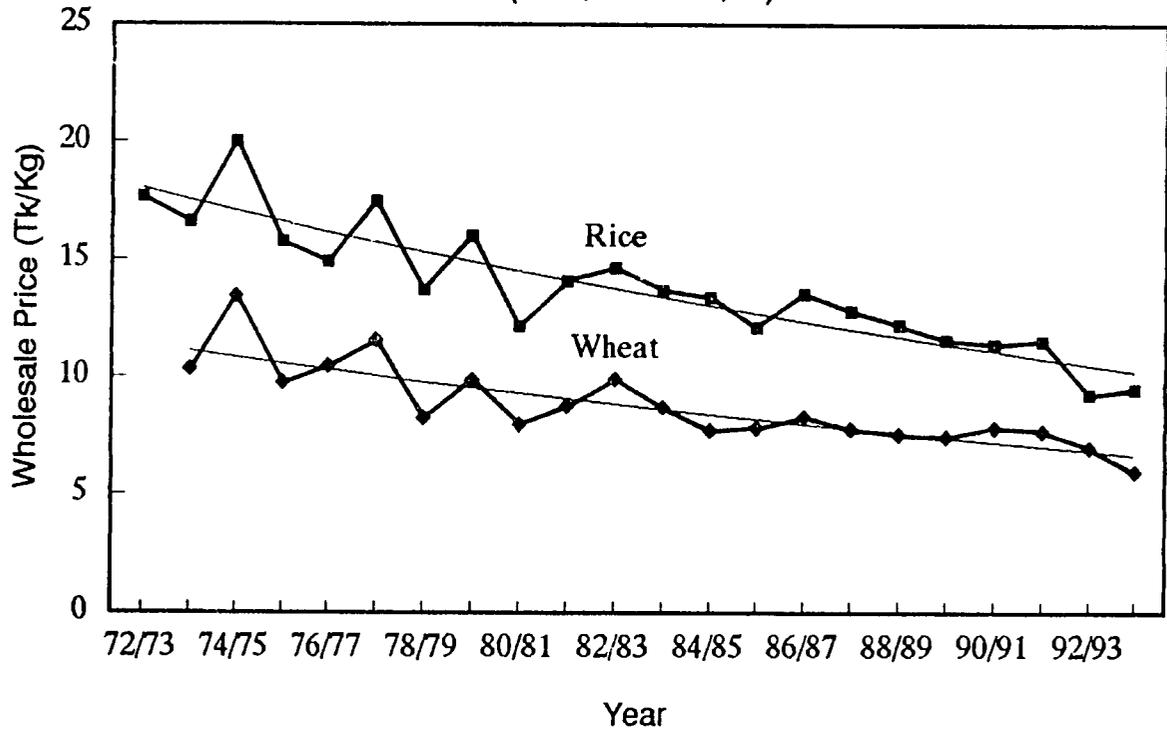


Figure 5 – Trends in Real Foodgrain Prices
(1972/73 – 1993/94)



Note :1) Deflated by Implicit GDP Deflator, Base Year 1993/94=100
Source: DAM & BBS

3

Consequences

CONSUMERS

For consumers, dampened price seasonality has diminished nutritional stress in the lean season. Falling foodgrain prices have increased real income, increased nutrient intakes and, sometimes modestly, sometimes more perceptibly, reduced poverty and undernutrition. A recent study by the Bangladesh Institute of Development Studies (BIDS) has concluded that poverty has fallen slightly, from 45% to 40% over the past five years (Rahman and Sen, 1993). Though levels of poverty remain alarmingly high, the dramatic growth in foodgrain production and marketing have undoubtedly cushioned the poor by fostering falling real foodgrain prices and increased on-farm employment (Ahmed 1993, Rahman 1994). Agricultural labor demand increases by about 50% with adoption of the new HYV packages, thus providing more jobs for the rural landless, who have only their labor to sell. Net purchasers of foodgrains include the landless, urban poor and marginal farmers, altogether about 85% of the country's population. For them, falling foodgrain prices and enhanced employment opportunities translate into unambiguously good news.

FARMERS

Farmers are both producers and consumers of rice. In fact, 70% of all farm households are net purchasers of foodgrains (A.Ahmed 1990). Mostly marginal and small farmers, they benefit from a falling rice price, which reduces the cost of purchasing their family's supplementary requirements. Their consumption from own production likewise costs less, given their access to the new, more productive farm technology. With new HYV technology, farm families can produce rice at a per kilogram cost 15% to 20% lower than they could with traditional varieties and technology. As their unit cost falls, returns per acre roughly double. The typical farm family of six can now supply its foodgrain requirement with 0.4 acres of land instead of 1.2.

Large and medium farmers market 65% of the country's foodgrain surpluses. So they, as well as absentee landlords, bear the brunt of falling rice prices. Yet, initially even their incomes have grown with the shift to HYV technology. Returns to land, their primary productive asset, rise from about 5,000 taka per hectare in pulses and oilseeds to 14,000 taka per hectare with Boro rice (Chowdhury, Morris and Meisner, 1994). Similarly, a

switch from local to modern varieties of Boro rice generally doubles returns to land. Over the long run, of course, continued falling rice prices undoubtedly erode returns to their land and thus require a response, either a switch to more even more productive rice technology or diversification out of rice.

GOVERNMENT

For government, these major changes in the private foodgrain marketing system lead clearly to a case for decreased government intervention. Government typically enunciates three objectives for its historically large intervention in foodgrain markets.

Security stocks. Rapidly growing private foodgrain stocks offer prospects for a corresponding decrease in public grain storage. Farmers hold the great bulk of private foodgrain stocks, leaving them well dispersed throughout the countryside. Moreover, supply lines connecting farmers with urban markets and other regions are now more numerous and dense than in the past. Access to world markets has also improved given growing private trader and government experience in foodgrain imports. Government can, therefore, hold less foodgrain stocks for disaster preparedness than they required in the past.

Price stabilization The advent of a large Boro harvest has cut seasonal price spreads in half, vastly diminishing the need for a large government buffer stock scheme to protect consumers. In fact, further depressing the now-low seasonal price spreads may be counterproductive. It may merely squeeze out any remaining incentive for private millers and traders to hold stocks (Chowdhury 1993).

Targeted relief. Decreased foodgrain prices have clearly eased hunger pangs of the poor. Though the level of poverty has fallen slightly as a result of the recent increases in farm productivity, at least 35 million Bangladeshis remain undernourished. While private profit-seeking by competing traders exhibits many virtues - it promotes cost-savings and efficiency, triggers sales where prices are high, and purchases when prices are low - it rarely elicits philanthropy on the scale required to match current needs. So government's role in poverty alleviation remains prominent, albeit slightly diminished.

Taken altogether, the changing structure of private sector production and marketing suggest that government's presence in food markets can decrease. Heavy fiscal pressure has motivated government to realize these economies by scaling down the size of the public food system. Hence, the rapid recent moves in food policy reform.

Taking Stock of Food Policy

RECENT CHANGES IN FOOD POLICY

Reform in food policy has come in long waves and in short bursts. Gradually, and almost unnoticed, government has exited from the ration system primarily through the steady erosion of incentives to draw public grain. Since 1981, the Ministry of Food has regularly raised its ration price by tying offtake price to procurement price, as stipulated in a succession of PL480 food agreements with the U.S. government. A steadily rising ration price, coupled with the fall in real market price, has made most ration outlets unenticing to cardholders (Figure 6). The shrinking price subsidy to consumers, combined with enormous leakage in the rationing system, has meant that ration cardholders have little at stake in the ration system. Hence the ease with which Government has begun closing its major ration outlets.

The suspension of Rural (Palli) Rationing, in December 1991, triggered a series of subsequent, rapid and related reforms. In rapid-fire order, the Bangladesh Government has instituted a series of major changes in the Public Food Distribution System (PFDS), all of which result in substantially lower cost and lower level of government presence in foodgrain markets (Figures 7 and 8).

Abolition of leaky ration channels. In December 1991, Government suspended its Palli Rationing channel, the largest in the Public Food Distribution System (PFDS). They formally abolished it the following May since leakage rates had ranged between 70% and 90% (Ahmed 1992, BRAC 1992). And for this negligible impact on the rural poor, government paid subsidies of 215 crore taka (\$60 million) per year. Statutory rationing, its urban counterpart and leakier still, is under serious scrutiny. Though effectively moribund, formal abolition of Statutory Rationing will require an act of parliament. Reduced offtake in these formerly substantial ration channels led to large stock build-up relative to offtake. In 1992, and to a lesser extent in 1993, the PFDS periodically experienced capacity constraints as well as difficulties in maintaining stock quality through stock rotation. This launched a wave of adjustments aimed at equilibrating procurement and offtake at new, lower levels.

Procurement reforms. A series of cost-saving changes in procurement procedures has formed an important component of the ongoing efforts and reform and adjustment. In a nutshell, government has taken the following steps:

- lower procurement quantities (Figure 8)

Figure 6 —Trends in Ration Price of Foodgrains

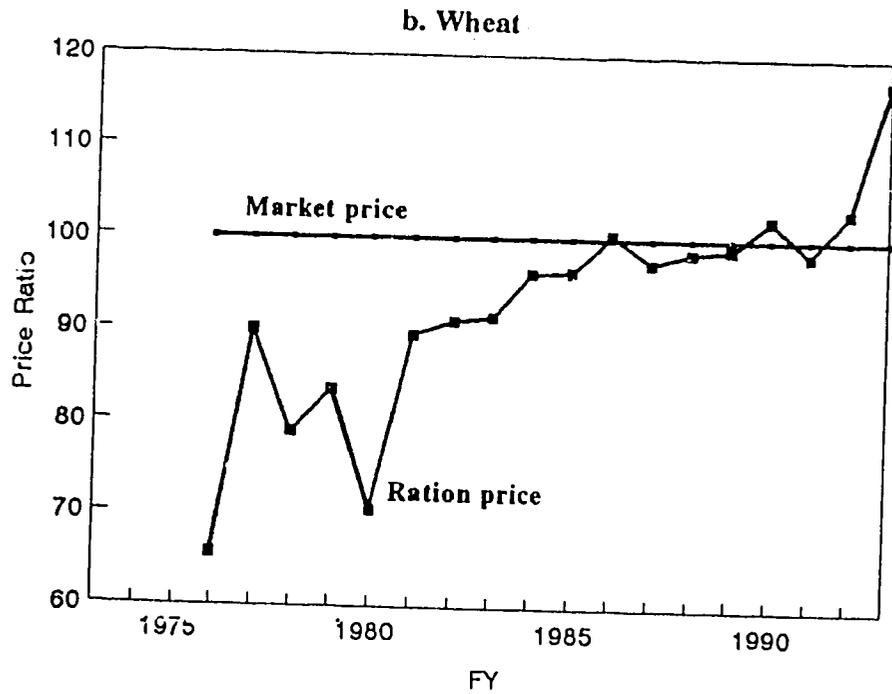
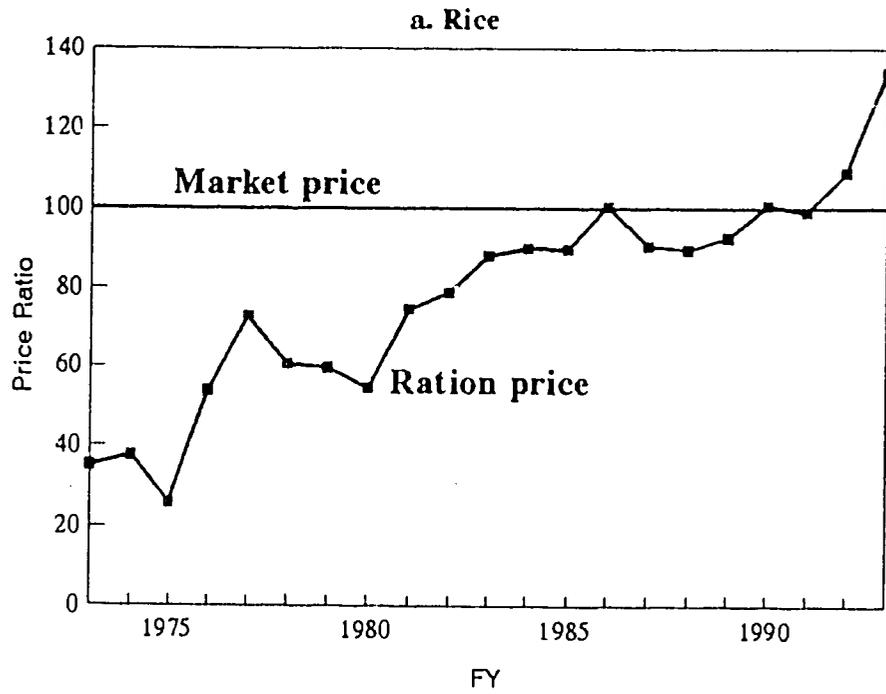
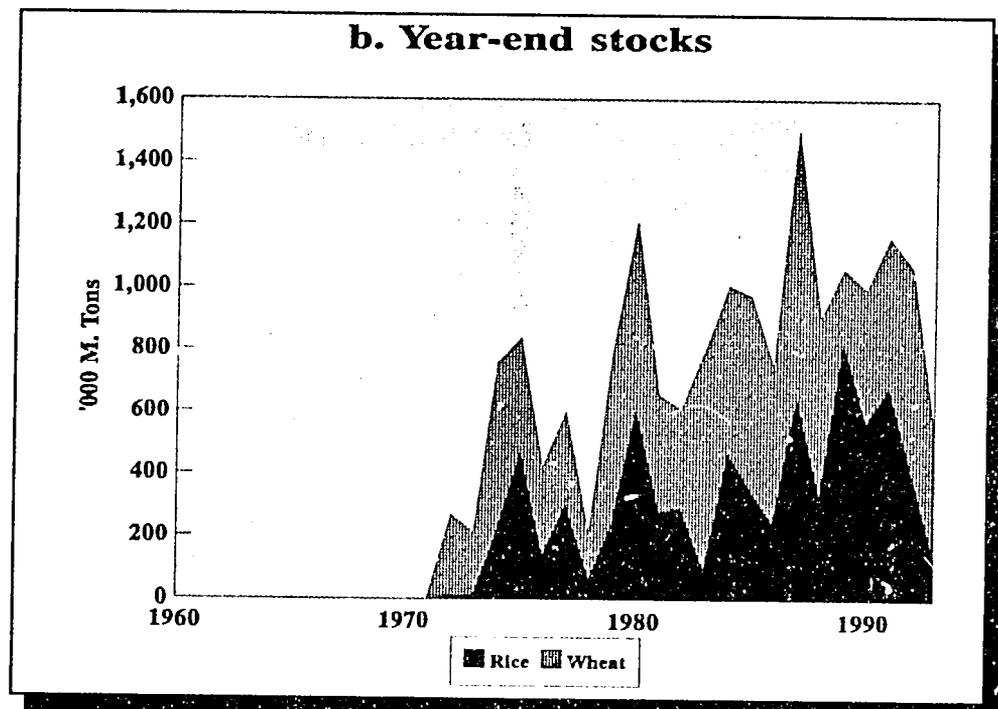
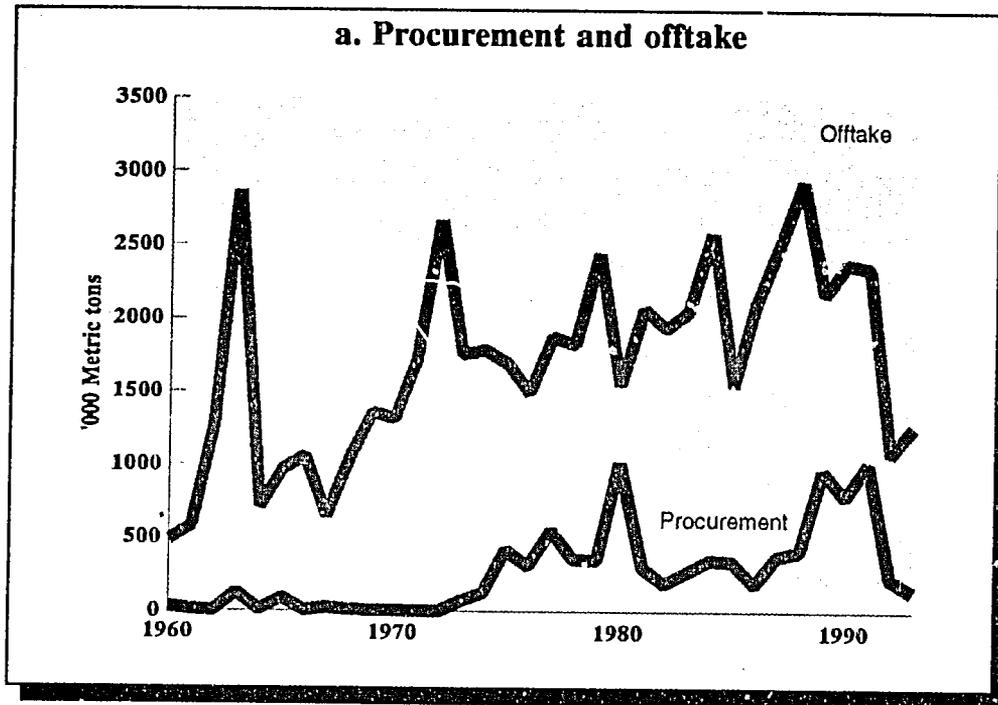


Figure 7—Recent changes in food policy

	FLAWS (1991)	ISSUES	GOVT. DECISIONS
Procurement		<ul style="list-style-type: none"> ■ Private vs. Govt. import ■ Domestic procurement: quantity, method, price 	<ul style="list-style-type: none"> ■ Allow private import ■ Lower quantity procured ■ Lower procurement price ■ Experiment with tendering ■ Suspend millgate contracting
Stocks		<ul style="list-style-type: none"> ■ Optimal stock level -Security stock -Price support -Targeted relief ■ Mgt. procedure & cost 	
Distribution		<ul style="list-style-type: none"> ■ Effectiveness of existing channels ■ Balancing the system 	<ul style="list-style-type: none"> ■ Abolish rural rationing ■ Review statutory rationing ■ Introduce Food for Education

Figure 8- Public foodgrain stocks and flow



- lower procurement price, for the first time in history, in November 1992 (Figure 9)
- abolish millgate contracting, from November 1992
- experiment with procurement at market price, through tendering
- experiment with raising quality requirements in procurement grades.

Private import of foodgrains. Since August 1992, government has allowed private import of foodgrains, initially without any import duty. Private traders responded by bringing in over 300,000 tons of wheat by December of that year. This has allowed a comparable reduction in government's commercial wheat imports and a virtual suspension of two channels, the Flour Millers (FM) and Large Employers (LE). Since government incurs costs of roughly \$50 per ton in handling imported wheat, this transfer of commercial imports from public to private agents will save the government about \$15 million annually.

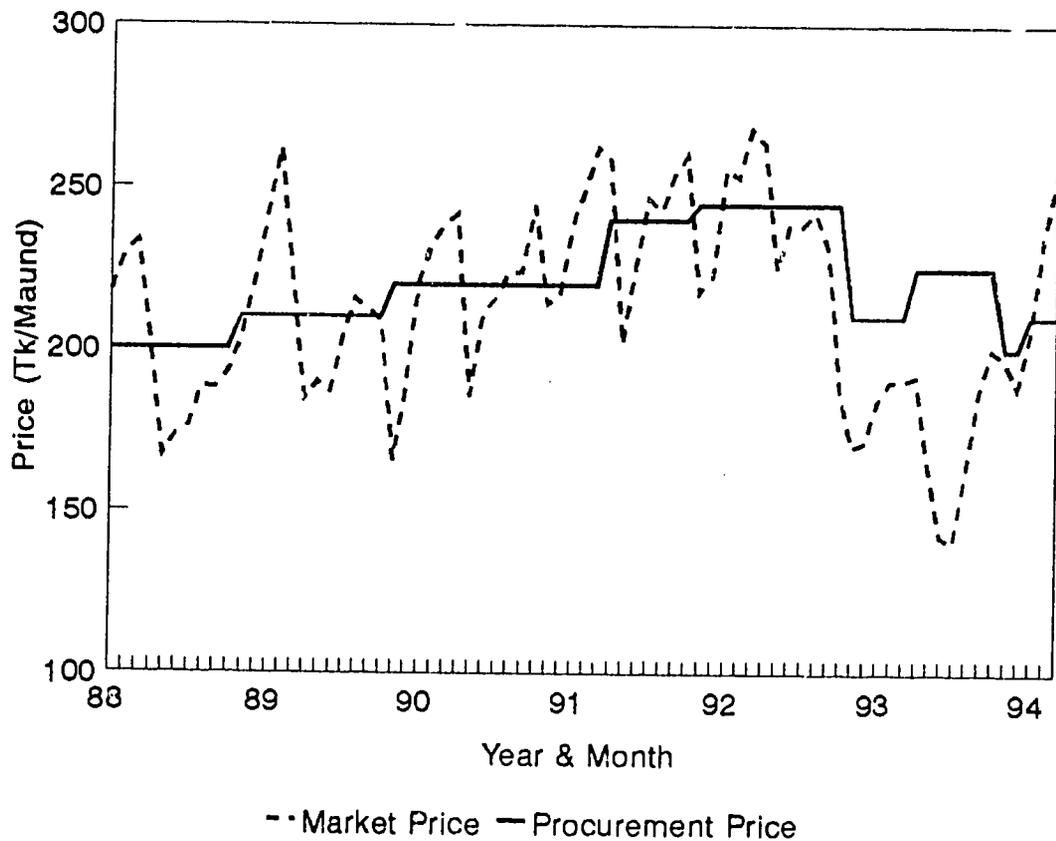
Pilot new targeted programs. The shrinking size of government involvement in foodgrain markets has generated considerable cost savings in the food budget, about 254 crore taka (\$64 million) annually over the past two years. In addition, the rapid reduction in offtake through monetized channels has generated periodic stock surpluses as the adjustments proceeded. With financial savings in hand, and periodically surplus stocks, government has begun experimenting with new, targeted distribution programs for the poor. The Ministry of Food initiated this effort by commissioning the recent Working Group on Targeted Food interventions to review the effectiveness of all PFDS channels in delivering income support to the poor (Working Group 1994). That review concluded that some PFDS channels - such as the Rural Maintenance Program (RMP) and Vulnerable Group Development (VGD) - are very effective in delivering income support to the poor, while others - such as the ration channels - are not. Drawing on suggestions from the review, Government has launched a large new pilot program, Food for Education, in an effort to redeploy savings in ways that will improve the effectiveness of food interventions targeting the poor.

ISSUES FOR THE FUTURE

Government's role in food markets. Government must continue its present efforts to redefine an appropriate role for public intervention in an era of rice surplus and growing privately held foodstocks. Clearly, government presence in foodgrain markets can decrease below the norms prevailing from the mid-1970's and through the 1980's. Indeed, the thrust of adjustments over the past several years has been to reduce government's presence in foodgrain markets considerably. Government's share of foodgrain sales have fallen from 30% in the 1960's to 25% in the late 1980's and to about 10% today. For rice alone, government's share of total marketed sales now stands at about 3%.

Have these reforms gone too far? Not far enough? Just how low can they go? This is a complicated question that will require empirical data as well as a careful review of the

**Figure 9-Monthly Market & Procurement Prices of Paddy in Bogra
(January, 1988-March, 1994)**



objectives of food policy. Once objectives are clear, principles of intervention must be developed so DG Food can continue its efforts at modernizing and streamlining public food management. The final section of this paper provides a framework for reviewing objectives and options for future evolution of food policy in Bangladesh.

Role of food aid. Foreign governments, too, are adjusting to the changing foodgrain markets of Bangladesh and to rapidly changing international availability of food resources. Food aid donors, historically important partners in government food policy, are reviewing with Government the most effective role for foreign assistance in a reformed PFDS.

Enhancing competitiveness of private trade. Expanded private sector capacity is a major driving force in many of the current food policy reforms. Although private milling and grain trading has expanded enormously, it still faces a number of impediments. Banks largely fail to grant credit for foodgrain trade. Yet credit expansion would increase competition even more. Anti-Hoarding laws, though their executing ordinances are currently suspended, still remain on the books. Because they discourage both private stock holding and bank credit using grain stocks as security, these inhibiting laws may need to be changed if the private trade is to fulfill its full potential as a large-scale holder of foodgrain stocks. Grades and standards more discriminating than Fair Average Quality (FAQ) will be required to modernize the domestic rice milling industry and prepare it for eventual export markets. Eventually, Bangladesh might contemplate at least an embryonic rice exchange to accommodate market growth, eventual export and government procurement. As the largest trader in the market, Government is uniquely positioned to spearhead modernization of the foodgrain trade.

Export liberalization. Falling foodgrain prices suggest that Bangladesh may soon become competitive as a rice exporter. Since export outlets can only release pressure on domestic prices in years of good production, this feature of trade policy will require review as part of the coming policy adjustments.

Crop diversification. Ultimately, falling foodgrain prices will induce farmers to diversify into other crops. Facilitating this move will form an important part of government's long-run food and agricultural policy.

A FRAMEWORK FOR REVIEW

To take stock of government food policy in the light of recent changes in food markets and the consequent changes in government intervention, discussion must center on the three most commonly advanced objectives of government's short-run food policy:

1) price stabilization: an ambitious, sometimes contradictory objective that involves protecting farmers from "low" post-harvest prices, protecting consumers from "high" prices in the lean season, and limiting year-to-year fluctuations in average price levels.

2) targeted support for vulnerable groups: improving consumption of vulnerable groups in the lean seasons and lifting them towards minimum nutritional standards throughout the year; and

3) security stocks: guaranteeing national supply of basic foods in the event of disasters.

A fourth objective, long-run food security, typically involves targeting growth of income and production along a path that will improve food access by vulnerable groups. Achievement of long-run food security requires orchestration of a complex set of variables including growth in food production, diversification of agriculture, overall economic growth, and income distribution. Here, many policies overlap and interact, including those governing agriculture, food and macro-economic incentives.

The following outline of topics offers one path through this complex set of inter-related issues:

- I. Historical Perspective on Food Policy
 - Session 1. Evolving Food Markets
 - Session 2. History of Public Food Interventions
 - Session 3. Trends in Consumption and Nutrition
- II. Contemporary Food Policy Issues
 - Session 4. Policy Objective 1. Price Stabilization
 - Session 5. Policy Objective 2. Targeting Vulnerable Groups
 - Session 6. Policy Objective 3. National Security Stocks
 - Session 7. Expanding the Objectives of Food Policy
- III. Emerging Long-Run Food Strategy
 - Session 8. Trends in Foodgrain Trade and Production
 - Session 9. Increasing the Competitiveness of Domestic Foodgrain Markets
 - Session 10. Diversification and Growth of Agricultural Production
- IV. Alternative Visions of Public Intervention in Food Markets
 - Session 11. Synthesis and Conclusions

In traversing this agenda, four questions bear consideration when evaluating each of the policy objectives under review:

- 1) What objectives does government wish to achieve?
- 2) How well does the market work in meeting those aims?
- 3) What impact will government intervention have on the market?
- 4) Is there a role for government in achieving this objective?

CHANGE AS THE ONLY CONSTANT

Bangladesh, after its rocky post-independence years, has confounded the skeptics by generating steady increases in foodgrain production in excess of population growth. Persistent investments in adaptive agricultural research and fundamental reforms in input markets have triggered this rapid growth, benefitting both farmers and consumers through technology-induced agricultural growth.

Because of an increasingly productive agriculture, real foodgrain prices have fallen steadily in Bangladesh. And they have fallen for the right reason. Other countries have achieved temporarily low food prices through an alternate route, via heavy consumer price subsidies. But these ambitious programs inevitably overwhelm public resources and require politically costly dismantling. Instead, Bangladesh has opted for the less costly, more sustainable, high productivity route to food security. Both farmers and consumers have benefitted from Bangladesh's sustained commitment to agricultural technology and productivity.

The resulting changes in food markets have enabled a series of major adjustments in food policy. Ongoing scrutiny will prove both illuminating and exciting as Bangladesh's food markets and food policy continue to evolve.

Tables

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Table 1—Number of rice mills, 1968-1990

	1968	1978	1982	1986	1990
<u>Number of mills</u>					
Automatic mills	-	3	36	66	88
Major rice mills	106	152	182	251	480
Other huller mills	<u>6,049</u>	<u>11,437</u>	<u>16,171</u>	<u>43,374</u>	<u>50,300</u>
Total	6,155	11,592	16,389	43,691	50,868
<u>Milling Output</u> (thousand metric tons)					
Automatic rice mills	-	-	110	210	280*
Major rice mills	170	240	400	610	980*

Source: Chowdhury (1992)

* Refers to 1988.

**Table 2—Private and public foodgrain stocks,
end of month carryout stocks (million metric tons)**

	Private Rice Stocks			Public Stocks	
	Farm	Trade	Total	Rice	Wheat
<u>Lean Season</u>					
October 1989	0.86	0.50	1.36	0.58	0.88
October 1990	1.44	0.40	1.84	0.64	0.59
October 1992	2.30	0.82	3.10	0.68	0.40
October 1993	1.70	0.42	2.12	0.34	0.53
<u>Post-harvest, aman</u>					
January 1990	4.73	2.04	6.77	0.82	0.51
January 1993	5.66	2.18	7.84	0.55	0.78
January 1994	5.53	1.67	7.20	0.19	0.46
<u>Post-harvest, boro</u>					
June 1990	3.67	1.68	5.35	0.82	0.33
June 1993	4.14	1.47	5.61	0.40	0.66

Source: Ahsan, Amin, Chowdhury, Farid (1994).

Table 3—Evolving structure of PFDS offtake

Years	Ration Channels	Open Market Sales	Relief Channels	Annual Offtake (Tons)
1972/3-1974/5	93%	0%	7%	2,034
1975/6-1977/8	84%	2%	14%	1,658
1978/9-1980/1	77%	3%	20%	1,898
1981/2-1983/4	68%	6%	26%	2,022
1984/5-1986/7	53%	8%	39%	2,097
1987/88-1989/90	50%	6%	44%	2,537
1990/91-1992/93	52%	7%	41%	1,918
1993/94	20%	23%	57%	1,271

Source: Chowdhury, Chowdhury and Shahabuddin (1986).

Table 4—Composition of food intake in Bangladesh

Food	Number of Calories	
	1969-71	1988-90
Cereals	1,545	1,690
Oils and fats	58	111
Sweeteners	136	79
Pulses	46	43
Tubers	49	27
Fruits	28	15
Meat	17	11
Other foods	83	62
Total	1,962	2,038

Source: FAO Food Balance Sheets, 1992.

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