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**EVOLVING FOOD MARKETS AND FOOD POLICY
IN BANGLADESH:
SYNTHESIS AND POLICY IMPLICATIONS**

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1. Evolving Foodgrain Markets

Technological change has fueled steady growth in Bangladesh's foodgrain production. Over the past twenty years, expansion of irrigation, fertilizers and high-yielding seed varieties have enabled rapid growth of dry-season wheat and irrigated rice crops. At the same time, declining population growth and rapid urbanization have led to slowing growth in foodgrain demand over the past decade. Together, growing production and softening demand have led to falling real foodgrain prices (Figure 1).

Foodgrain markets have grown even more rapidly than production. While foodgrain production has roughly doubled since independence, marketing has increased by a factor of six.

Together, growth in production and marketing have produced a range of built-in stabilizers that naturally moderate what were formerly large swings in foodgrain availability and prices.

- Production growth during the dry season has generated year-round rice production and thereby dampened formerly substantial seasonal price movements (Figure 2).
- Rice markets have become well-integrated and highly competitive due to the surge in volumes marketed, growing numbers of traders and millers, and vastly improved transport and communication infrastructure. This active network of marketing agents moderates regional disparities in both prices and availability.
- Growing private stocks augment government's national security stocks. Because they are held mainly on-farm, private stocks are widely dispersed throughout the country and therefore well positioned to respond to disasters wherever they may occur.
- Private import and export of foodgrains have improved national response capacity in the event of a domestic production shortfall. Trade also provides built in price stabilization, as world prices set a ceiling and floor on domestic prices, without the high cost of government buffer stocks.

This growth in private foodgrain trade has permitted government to reduce its own role in foodgrain markets, particularly in recent years (Figure 3). As the boro harvest dampens seasonal spreads in the rice price, government has been able to correspondingly reduce its efforts on seasonal price stabilization. As private traders and millers expand their import of wheat, government has been able to reduce its own commercial imports. As private farmers and traders dramatically increase their foodgrain stocks, government has been able to reduce its own security stock requirements. Via falling price, production growth has also permitted government to reform leaky ration channels, since former ration recipients have been able to purchase foodgrains even more cheaply on the private market.

In the future, government enjoys many options. They can continue their new, lower involvement in foodgrain markets and simply pocket the savings. Or they can redeploy savings and expand their activities in areas where the private sector has not ventured, such as targeted programs. Rather than simply removing impediments to private trade, as they have in the recent past, government can consider more pro-active promotion of a modernized

private foodgrain trade.

A May 1994 seminar on food policy - sponsored jointly by the Ministry of Food, USAID and IFPRI - aimed to systematically review policy objectives and options at this transition period in Bangladesh's foodgrain markets and food policy. The following discussion briefly records the general conclusions of those deliberations and of the research that underlies them, using the short- and long-run objectives of food policy as an organizing frame.

2. Implications for Short-run Food Policy Objectives

a. price stabilization

Price stabilization, a classic and fundamental objective of Bangladesh's food policy, involves two components. First is stabilization of normal seasonal price spreads. Second is reduction of year-to-year fluctuation in average prices. Both objectives require government to resolve a fundamental conflict between producers and consumers. Raising prices helps farmers but penalizes consumers. Lowering prices helps consumers, but only at farmers' expense. Resolving this conflict between the interests of consumers and farmers is the fundamental dilemma governments face when they decide to intervene in food markets.

1. seasonal

For consumers, seasonal price stabilization is no longer important. The emergence of a major boro harvest has cut seasonal price spreads in half, from 25% at independence to 10-15% today (Figure 2). Remaining but diminished seasonal consumption stress now appears more related to seasonality of income and disease - particularly diarrhea - rather than to seasonality of rice prices.

For farmers, post-harvest price support through domestic procurement has not proven very effective, because government purchases have been generally small, while markets have grown ever larger, and since government makes all purchases through intermediaries, particularly through millers. Though procurement does lift post-harvest prices slightly, it does so at high cost. It also produces unwanted side-effects since the ensuing build-up of public stocks induces stock liquidation by private traders, thereby depressing future prices. By squeezing out private stocks, public procurement reduces private financing for storage of national security stocks.

International trade offers a second, less costly means of price stabilization. Simulation results indicate that introduction of private import and export as a tool in government price management reduces public costs of price stabilization by two-thirds. Use of international prices as low-cost price stabilizers also avoids the stock build-up problems associated with domestic procurement.

2. inter-annual

Stabilizing year-to-year variations in price has become much more costly today than it was in the past. Increased domestic production, and vastly expanded marketings, mean that inter-annual price stabilization through domestic procurement has become immensely expensive. Price stabilization also dampens farmers natural compensating production responses. Normally, high prices stemming from low production induce farmers to plant more in the coming season. But by dampening price hikes in any one year, government price stabilization will reduce production responses in the following year. Given the considerable dampening of inter-annual price fluctuations accompanying boro-led growth of foodgrains (Figure 1), it appears that year-to-year price stabilization is becoming both less necessary and more costly than in the past.

b. targeted programs

Poverty in Bangladesh remains overwhelming. In spite of growing foodgrain production and falling real prices of rice, over half of the country's population cannot afford an adequate diet.

Here, the case for public intervention remains strong and clear. The profit motive, which induces private traders to buy grain when prices are low and sell them when prices are high, produces natural incentives for private sector price stabilization and stockholding. Yet these same commercial incentives fail to elicit philanthropy on the scale required to meet present needs. Consequently, targeting the poor remains squarely within the public domain.

In combatting poverty, the case for public intervention remains strong though questions remain about scale and program options (Figure 4). Public resources, from government and donors, will set the level of funding available for poverty alleviation. Yet the tradeoff between short-run relief programs and long-run employment-oriented growth remains. So political leaders will have to establish some balance between resources allocated for short-run relief and those directed to long-run efforts at poverty eradication.

c. national security stocks

Security stocks remain necessary in Bangladesh, to replace potential production and stock losses imposed periodically by draught, flooding and cyclones. Though government cannot abandon its role in assuring security stocks, the necessary level of public stocks has undoubtedly fallen considerably over the past two decades. Droughts, historically the source of Bangladesh's most severe production shocks, appear less threatening now because of irrigation expansion and the consequent prospects for supplementary irrigation to prevent crop loss during the Aman season. During the 1992 season, widespread supplemental irrigation, made possible by the rapid expansion of shallow tubewells following the 1988 liberalization, converted a potentially disastrous drought into an all-time record Aman harvest. The rapid growth of private stocks has likewise reduced the need for public foodgrain stocks. Even at

their lowest ebb, prior to the Aman harvest, private stocks outweigh public rice stocks by a factor of three. Since Bangladesh's 10 million farmers hold the bulk of these stocks, supplies are widely dispersed and available throughout the country. Nor can 10 million farmers collude. Finally, growing private and public experience with foodgrain imports has reduced supply times from abroad, making Bangladesh less dependent on domestically held foodgrain stocks. Given shorter lead times, trade has become at least a partial substitute for domestically stored security stocks.

The minimum requirement for public security stocks now lies in the range of 350,000 metric tons. This figure is calculated as the amount of grain required to feed 10 million disaster-affected people for a period of 75 days following a natural calamity. It stands considerably below the 600,000 ton requirement enunciated in past decades. Rapid growth of private stocks, reduced risk of draught, and improved import response time have all combined to reduce public security stocks requirements. Depending on the level of public working stocks held during the vulnerable season for forthcoming targeted programs, security stocks may be further reduced since these rolling stocks simultaneously serve a security function.

Overall, it appears that national security stocks will set the floor on the size of the public food system. Depending on the timing and scale of resources available for targeted programs, these programs' rolling stocks may reduce the level of security stocks required during the vulnerable seasons. To estimate minimum total public stock requirements, a spatial and seasonal programming exercise will form an important contribution to future food management efforts.

3. Implication for Long-Run Food Policy

Foodgrain self-sufficiency remains the stated long-run objective of government food policy. Since independence, foodgrain self-sufficiency has served as a rallying point around which government has mobilized considerable resources for agricultural research, extension support, and expansion of input supply.

Though historically important in mobilizing resources and political will, foodgrain self-sufficiency seems no longer a practical objective in today's changed environment. A clear shift in consumer tastes, accelerated by rapid urbanization, has led to a large and growing imbalance between wheat consumption and its domestic production capacity. Bangladesh will probably never be self-sufficient in wheat. Moreover, given recent successes in rice production, Bangladesh faces growing prospects for export of rice and other tropical crops.

Foodgrain self-sufficiency precludes trade as an instrument of food supply. Yet recent government actions suggest a growing recognition of benefits to be derived from trade. Removal of rice and wheat from the list of controlled items now make private import and export possible, even encouraged. International trade offers the potential to increase farm prices in years of surplus production, by opening up export sales as a safety valve, and

decrease prices in years of shortage, by offering incentives for private import. Given Bangladesh's acute shortage of land, national income and food consumption will be highest if farmers produce whatever crops are most profitable - for domestic consumption or for export - and import from abroad any food items that can be grown more cheaply elsewhere. By exporting medium and fine rice, fruits, flowers or horticultural crops, Bangladesh can finance any necessary imports of wheat.

In sum, recent government actions imply movement beyond the stated objective of "national foodgrain self-sufficiency" towards one of "agricultural diversification" and "trade liberalization" on the supply side and "household food security" or "poverty alleviation" on the demand side. The Prime Minister's oft-repeated slogan of "dal-bhat for all" suggests expansion of food policy objectives in two directions: "dal" implies diversification beyond foodgrains, in both production and demand, while "for all" strongly suggests a move beyond mere supply issues to a concern for demand, income distribution and expanded purchasing power of the poor. Recent moves to liberalize trade in foodgrains underscores recognition of the potential gains from trade to expand both local incomes and food availability at lowest cost. Government's currently stated objective of national foodgrain self-sufficiency simply requires domestic production of all foodgrains consumed. It says nothing about alternative crops, benefits of trade, income distribution or the ability of poor families to purchase what the food they require.

4. A New Role for Government

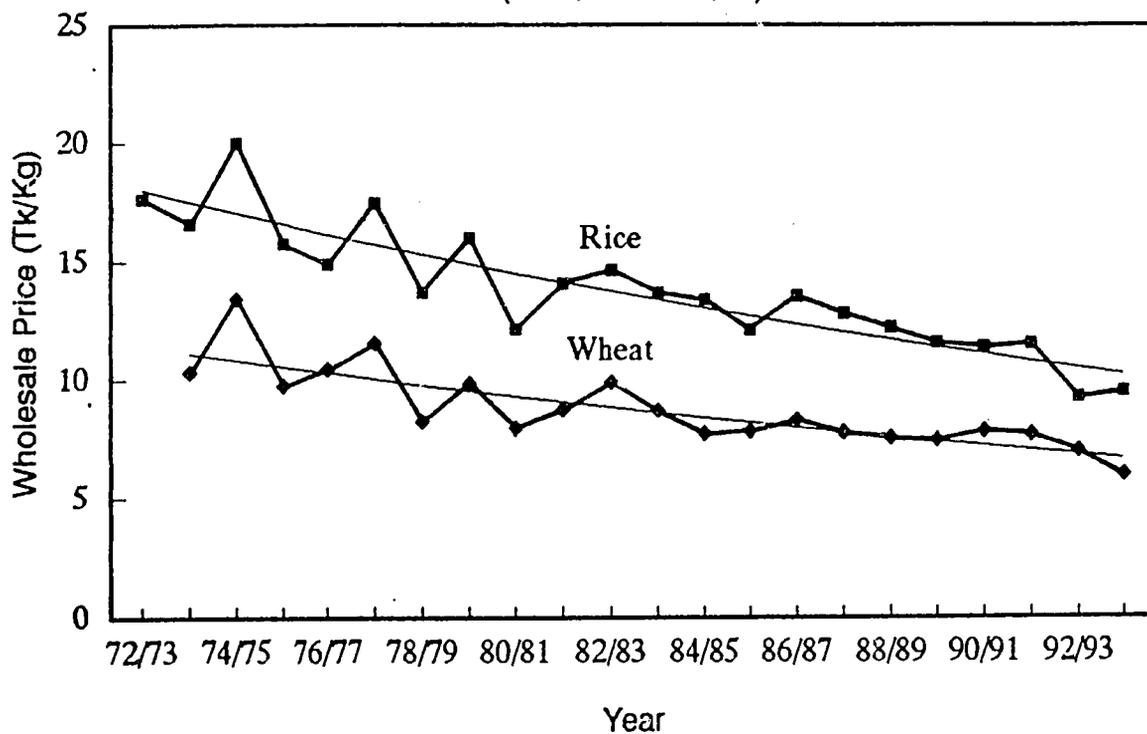
In a nutshell, recent developments in foodgrain markets and in food policy have opened up two new instruments of public food policy: a) international trade; and b) devolution of some functions to the private sector. In general, each enables government to achieve its objectives at lower cost, and with less direct government involvement, than in the past.

Yet, as many seminar speakers emphasized, this does not imply a complete government withdrawal from foodgrain markets. Rather, it implies a shifting role for government. Rather than massive domestic procurement and offtake, government can take advantage of international trade and private stockholding as natural stabilizers of price fluctuations. Rather than large public security stocks, government can continue to remove disincentives to private stockholding and trade. Rather than merely removing legal impediments to private trade and stockholding of foodgrains, government can consider a program of active support to accelerate modernization and growth of private foodgrain markets. Elements of such a pro-active stance might include further legal reform to remove ambiguity about legality of private stockholding, support for accelerated access to credit by foodgrain traders, introduction of grades and standards that would allow domestic trade to increase value added while at the same time priming the domestic market for eventual export markets, review infrastructure necessary for foodgrain import and export, and introduction of forward pricing in government procurement to provide elements of a reference price and futures markets, with possible eventual evolution towards a rice exchange.

Targeting of short-run relief and longer-run efforts at poverty alleviation will remain squarely within the public domain. Increasingly, food policy will require concerted attention to patterns of economic growth that ensure growing employment and wage rates necessary for raising long-run purchasing power of the poor. In a country where poverty remains pervasive, food policy cannot remain separated from general economic policies that influence income distribution and the economic power of the poor.

The ultimate challenge of food policy will be to retain a strong commitment to low-cost food supply, through the twin avenues of international trade and cost-reducing new farm technology, while at the same time creating a general environment for economic growth that focuses on growing employment, wages and increased purchasing power of the poor. To meet this challenge, ongoing monitoring and research will be essential as both international and domestic foodgrain markets continue to evolve.

Figure 1 – Trends in Real Foodgrain Prices
(1972/73 – 1993/94)



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

Figure 2—Changes in Price Seasonality,
Detrended Index of Coarse Rice Price

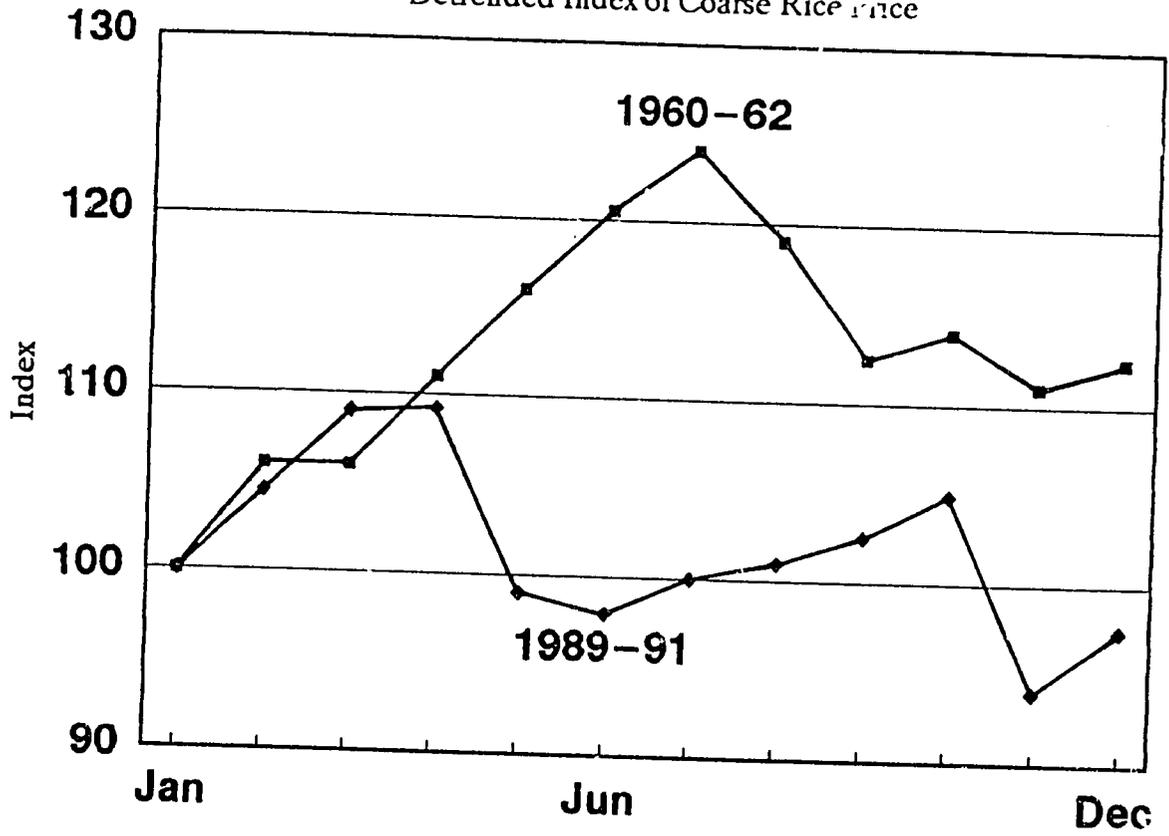


Figure 3--Recent changes in food policy

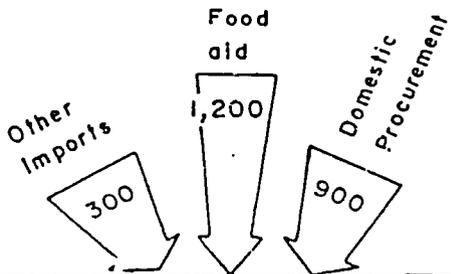
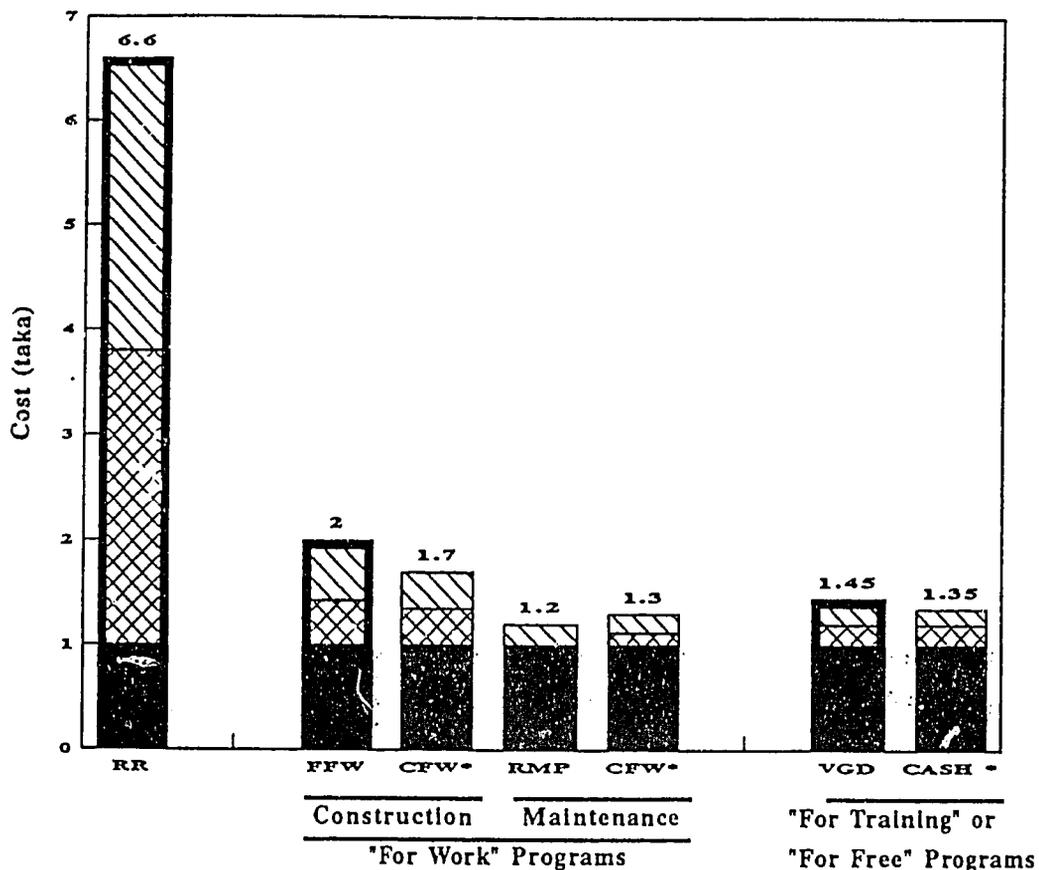
	FLows (1991)	ISSUES	GOVT. DECISIONS
Procurement		<ul style="list-style-type: none"> ■ Private vs. Govt. import ■ Domestic procurement: quantity, method, price 	<ul style="list-style-type: none"> ■ Allow private import ■ Lower quantity procured ■ Lower procurement price ■ Experiment with tendering ■ Suspend millgate contracting
Stocks	<div style="border: 2px solid black; padding: 10px; text-align: center;"> <p>Public Food Distribution System (PFDS)</p> </div>	<ul style="list-style-type: none"> ■ Optimal stock level -Security stock -Price support -Targeted relief ■ Mgt. procedure & cost 	
Distribution	 <p style="text-align: center;">CONSUMERS</p>	<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 4—Food versus non-food transfers
 (Cost of supplying 1 taka to a vulnerable household)



Cost components:

- ▨ Administration
- ▩ Leakage
- Income

Commodity:

- Food
- Cash

* = Hypothetical Programs

RR= Rural Rationing

FFW=Food for work

CFW=Cash for Work

RMP=Rural Maintenance Program

VGD=Vulnerable Group Development