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Price Support, Domestic Procurement Programme and Public Stock Management¹

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1. Introduction

Policy makers in Bangladesh, as in many other developing countries, face the dilemma of trying to keep food prices low for consumers, especially poor people, while ensuring prices are high enough to give farmers the incentive to grow more food.

In the medium-to-long term this problem can be tackled by raising the productivity of farming (e.g., by breeding more efficient rice varieties, improving marketing systems) so that food can be produced more cheaply, benefiting both food consumers and farmers (see Policy Brief No.0903). In the short term, Government can try to reduce farmers' costs of growing food (e.g., through irrigation and fertiliser subsidies or more efficient fertiliser and water management practices - see Policy Brief No. 0904) and/or influence the price of food in the market (e.g., through domestic procurement, open market sales and/or food imports).

The remarkable changes in the agriculture sector and food markets

since Independence in 1971 has reduced the need for Government to intervene in the market to stabilise prices. Boro rice output has grown rapidly over the last 20 years, rice prices have fallen in real terms (i.e. after allowing for inflation), and it is easier to market and transport food grain within Bangladesh and to trade with other countries in the region than before. Despite these gains, food prices continue to fluctuate.

Governments maintain public food stocks in order to: (a) provide emergency relief during periods of natural disasters, (b) alleviate chronic food insecurity through targeted food distribution to poor households, and (c) take steps, when necessary, to stabilise food markets. Some researchers argue that public food stocks also provide "political insurance," by making it possible for the Government to avoid criticism for failing to tackle sharp swings in rice prices or to meet disaster relief needs (Goletti 2000).

Food storage is costly, so it is important that the Government does not hold more food than it needs for an "adequate" national food reserve.

This Policy Brief discusses the policy options for improving effectiveness of price support, domestic procurement programme and public stock management in Bangladesh. It has been funded by the UK Department for International Development (DFID).

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2. Evolution of the PFDS:1980 to 2008

The size and composition of the Public Food Distribution System (PFDS) has changed significantly over the last three decades (see Figure 1 and Table 1). In the 1970s and early 1990s over 60 per cent of the rice and wheat was distributed through subsidised sales channels. Between

1989/90 and 1991/92, 64 per cent of food grain was distributed through these channels, with 40 per cent of this being sold each year through the Rural Rationing and Urban Statutory Rationing Programmes. Targeted channels, including Food-for-Work (FFW), Test Relief (TR) and Vulnerable Group Development, which target the poorest households, accounted for the remaining 36 per cent.

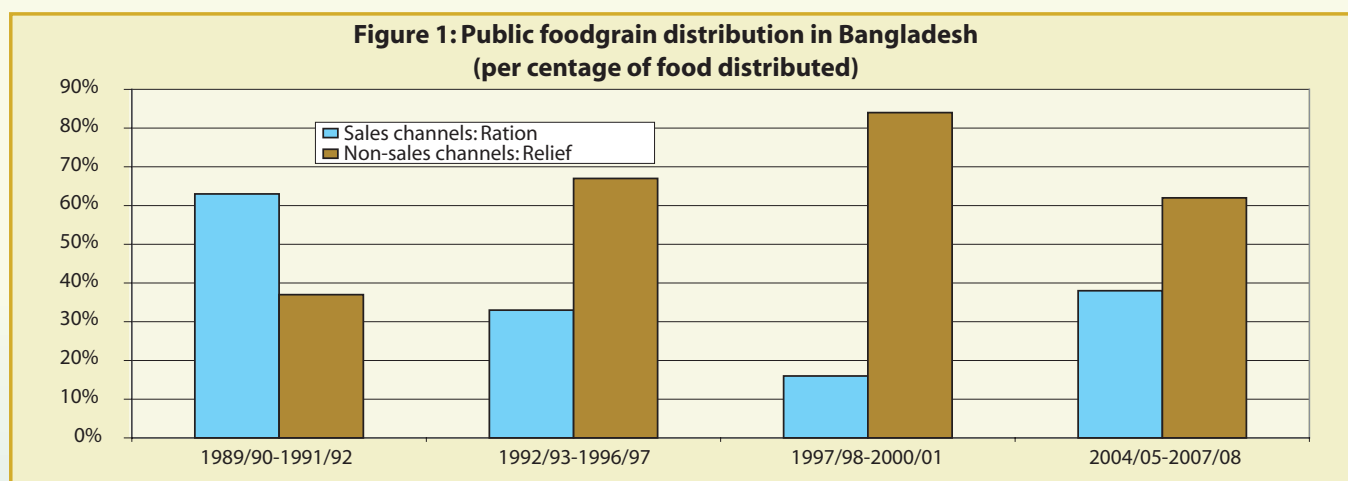


Table 1: Public foodgrain distribution in Bangladesh

(Annual average, '000 metric tons)

Programme	1989/90 - 1991/92	1992/93 - 1996/97	1997/98 - 2000/01	2004/05 - 2007/08
Sales channels: Ration				
Statutory rationing (SR)	187	11	0	0
Rural rationing (RR)	376	0	0	0
Essential programme (EP)	145	172	207	239
Other priorities (OP)	232	11	15	19
Large Employees Industries (LEI)	45	17	12	12
Open Market Sale (OMS)	137	200	41	233
Fair price cards	0	0	0	13
Flour mills	235	39	10	1
Palli chake (rural mills)	96	21	0	0
Other/auction	0.0	7	0	0
Sub-total	1,456	482	285	517
	63%	33%	16%	38%
Non-sales channels: Relief				
Food-for-Work (FFW)	471	444	628	162
Test Relief (TR)	153	101	109	131
Vulnerable Group Development (VGD)	214	167	207	220
Gratuitous Relief (GR)	0	30	38	45
Food for Education (FEE)	0	154	308	0
Vulnerable Group Feeding (VGF)	0	0	204	190
Other	0	64	59	90
Sub-total	838	961	1552	838
	37%	67%	84%	62%
TOTAL	2,294	1443	1837	1355
	100.0%	100.0%	100.0%	100.0%

Source: Dorosh, Shahabuddin and Farid (2004), updated.

Rural Rationing and Urban Statutory Rationing channels were abolished by reforms in the early 1990s, which aimed to improve the targeting of food grains and reduce leakages and operational costs. Other sales programmes, including Open Market Sales, were also cut back as the private sector came to play an increasingly important role.

In recent years, targeted programmes have accounted for 62 per cent and subsidised sales channels 38 per cent of the PFDS. The annual volume of food grain in the PFDS fell from 2.3 million metric tonnes (hereafter 'tons') in the early 1990's to about 1.4 million tons in recent years. Most evidence suggests that the shift from sales to targeted programmes greatly improved the overall efficiency of the PFDS (Dorosh, Shahabuddin and Farid 2004).

3. How to Achieve the Objectives of the National Food Policy?

Stabilising food grain prices is a major goal of the National Food Policy and thus of the PFDS. Sharp increases in food grain prices lower the real income of poor people because they spend a large part of their income (often over 50 per cent) on food. On the other hand, low food prices adversely affect farmers and discourage private investment in agriculture.

Although many developed countries consider that government schemes to stabilise food prices are not cost effective, most developing countries do adopt some type of stabilisation policy to protect consumers. Stable prices benefit consumers, especially the poor, by keeping food grain affordable during periods, which would otherwise be characterised by high prices. The assumption that poor consumers can save enough at times of low prices to pay for higher prices later on is unrealistic in economies such as Bangladesh, with widespread poverty and imperfect capital markets.

Price stabilisation is also used to ensure that farmers have the incentive to grow food. The expectation that prices will remain stable helps to reduce uncertainty for farmers and encourages them to invest in inputs and other modern technology. This is especially important in countries like Bangladesh where other forms of risk insurance are not yet available.

Food prices in Bangladesh fluctuate from year-to-year and season-to-season. Annual variations generally result from extreme climatic events—floods, cyclones and droughts—and are moderated through private and public imports of food grain, mainly from other countries in the region. Private imports have come to play an increasingly important role in recent years.

Seasonal variations in food prices are caused by the timing of the main rice harvests. The two policy instruments that Government uses to keep seasonal price fluctuations within acceptable limits are:

- the domestic procurement programme, where government purchases grain from the open market in order to maintain a floor price for farmers (below which market prices would not fall);²
- an open market sales (OMS) programme to reduce food grain prices for consumers when prices are rising too high.

The domestic procurement programme has been used in Bangladesh since the late 1970s to provide floor prices; the OMS programme was introduced in the early 1980s.

Both these instruments involve substantial costs to the national budget. It is thus important that the causes and implications of price fluctuations are properly understood before such costly policies are designed and implemented.

Food distribution safety net programmes are the third instrument under the PFDS, and include Vulnerable Group Development (VGD), Vulnerable Group Feeding (VGF) and Food-for-Work (FFW). These programmes distribute food and provide support to targeted individuals who cannot afford or acquire food. Once a person can access food without help, he or she would "graduate" out of the programme. Where food is available in markets some countries prefer to provide stamps, vouchers or cash transfers to the poorest so they can buy their own food. These can be more cost effective and efficient than food distribution. Food distribution does not significantly reduce food insecurity or improve nutrition if food packages are insufficient in caloric quantity and quality, inflexible or

²This programme was used earlier just to build Government stocks of food grain for distribution.

poorly targeted. In many countries food is only distributed during emergency situations, when floods and cyclones disrupt food markets or destroy livelihoods.

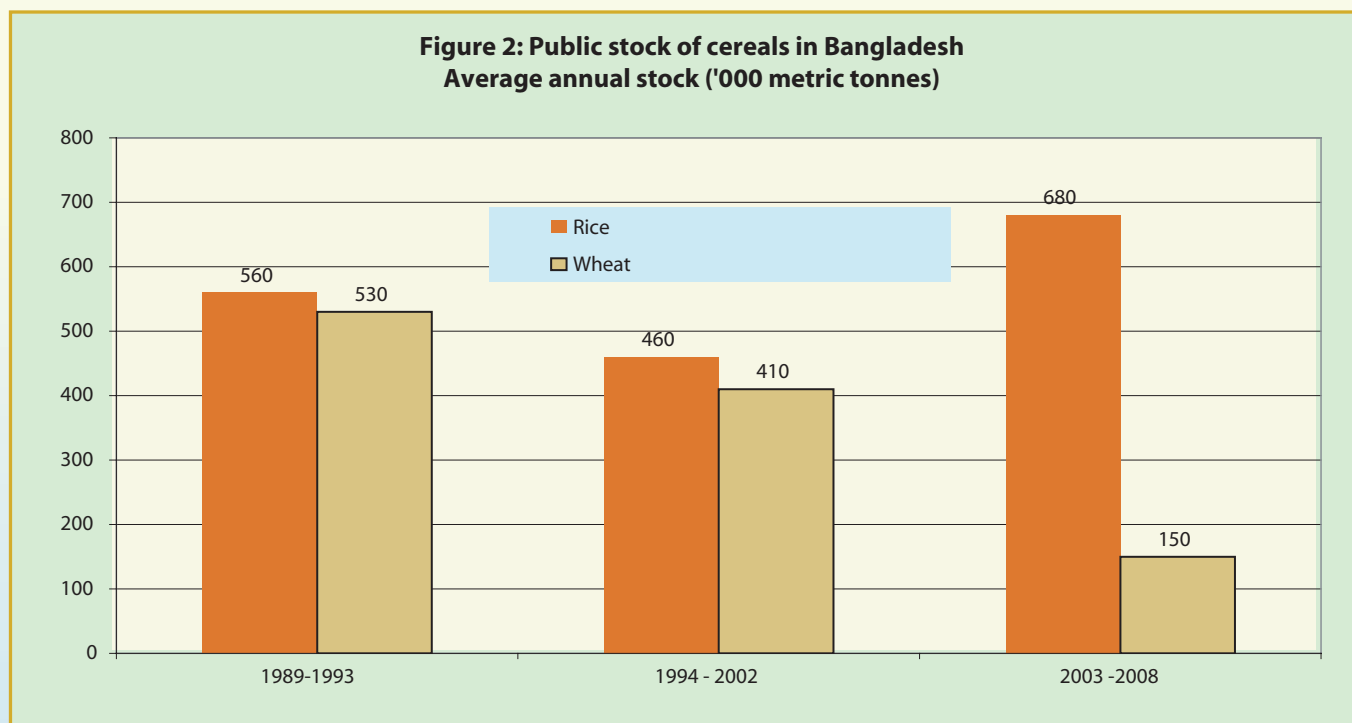
4. Key Issues

Public Stock Management

As mentioned earlier, public stocks serve three purposes which are consistent with the goals of PFDS. These are (a)

domestic procurement) to stabilise prices during a period of relatively stable international prices (See Figure 2 and Table 2).

Public stocks are not a cost-effective instrument to increase food supply. Grain reserves are costly to maintain, and divert public expenditure away from other investments aimed at increased agricultural production (e.g., rural infrastructure or improved technology and innovation). Determining the minimum level of grain reserve, is therefore, very important (World Bank 2008).



adequate operation of existing food-based safety net interventions to protect food security of the poor; (b) stabilisation of market prices of food, mainly rice; and (c) emergency relief in times of food crisis (security stocks). The official government target in late 2008 was to hold a 1.5 million tons stock of rice and wheat.

The costs of procuring, storing, managing and distributing large stocks of grain are high. Since rice cannot be stored for more than 6 months, without deteriorating, stocks typically have to be rolled over twice a year. Wheat, which was traditionally provided by food-aid donors, can be stored for longer. A reduction in wheat-based food aid in recent years has increased the amount of rice in store and thus the need to "roll over" the stock. Although this raised the cost of managing the food stock, this was off-set by a fall in the overall size of the public food stock, after 2002. This was due to the increased use of imports (rather than

In addition, it must be realised that the same ton of grain cannot simultaneously serve the three objectives of providing an adequate food safety net for the poor, stabilising market prices and providing emergency relief. There are inevitable "trade-offs" between the three objectives. For example, a sudden emergency may require stocks to be drawn down so low that normal distribution of grain is no longer feasible and must be postponed or even cancelled or be more targeted to those most in need. Thus acceptable stock levels need to be analyzed for each purpose separately, together with a review of alternative instruments available outside the PFDS.

Temporary export bans imposed by major grain exporting countries in 2008 caused policy makers in Bangladesh to re-assess the risks of relying on imports from other countries in times of extreme distress or crisis (see Policy Brief No. 0905). In the past, Government has calculated that

maintaining year-round grain stocks between 0.7 and 1.5 million tons is adequate for national food security. In addition to the security stock, the Government estimated a need for 2008-09 of 1.9 million tons flowing through the PFDS for feeding into food-based safety net programmes, while considering that sales of another 0.5 million tons would be sufficient for price stabilisation operations (OMS).

and wholesale trader. A policy of expanding public grains stocks thus needs to pay adequate attention to institutional considerations.

Table 2: Public stocks of cereals in Bangladesh: 1988-89 to 2007-08
(’000 metric ton)

Period	Rice	Wheat	Total
1989 - 1993	560	530	1090
1994 - 2002	460	410	870
2003 - 2008	680	150	730

Source: World Bank (2008.) Figures are rounded average of end-June stocks for the periods shown; 2007-08 stock data are projected figures.

Since the early 1990s private sector imports have played an increasingly major role in stabilising prices, reducing the need for heavy Government intervention and allowing for a mixed market-state approach. This was particularly successful, for example, following the domestic harvest shortfall after the massive 1998 floods. Indeed, the role of private imports for price stabilisation is larger than that of publicly distributed food through Open Market Sales (OMS). However, despite high imports in 2008 rice prices rose sharply. A key reason for this was that farmers, millers, traders and consumers reportedly responded to the global food price hikes and the export bans by India, and other countries, by hoarding grain, which served to boost prices further.

Although public warehouses have capacity to store 1.7 million tons, some of this is unusable; so the effective government storage capacity is 1.2 million tons. This is adequate for minimum national food security but not for the additional stocks to stabilise prices and if the Government wishes to continue with food-based safety nets programmes.

In view of this, the Government should consider using private storage as well. An assessment is needed of existing private storage capacity and the willingness of private traders to lease warehouses to government and/or hold temporary stocks on behalf of the government. This should also take into account the high demands on scarce human resources in the public sector, especially line departments, for management of public stocks. A recent World Food Programme assessment estimates that private storage capacity is not greater than 10 days on average per retail

Domestic Procurement Programme

Since the early 1990s, private-sector grain imports have effectively made up any shortfall following poor rice harvests, without substantial price rises.

But, if Bangladesh imports grain easily, the country finds it difficult to export rice when it has surpluses. On a number of occasions in the last decade, after good harvests, rice prices in Bangladesh fell below those in neighbouring countries, but this did not trigger exports because market links were not established and there is no internationally-recognised system in place for grading Bangladeshi rice.

An alternative option to the export of rice, following bumper harvests, is for the Government to procure surpluses as a way of controlling domestic prices and providing an incentive to farmers. However, setting a procurement price that sends adequate production signals to the farmers while minimising costs to the public exchequer is a real challenge. Research indicates that it is easier to forecast the size of the irrigated boro rice harvest and future price than it is for the aman, which is grown during the monsoon. Procurement of boro rice exceeded 80 per cent of target in 9 out of 13 years (1987-1999) and failed to reach at least 60 per cent of the target in only one year. Aman procurement, on the other hand, exceeded 80 per cent of target in only 2 out of 12 years and averaged only 18 per cent of the target in 8 out of 12 years. (Dorosh, Shahabuddin and Farid 2004).

However, the procurement price set for the boro harvest was excessively high in 3 out of 4 years during the late

1990s, resulting in extra costs for the government and windfall profits to those fortunate enough to sell at the procurement centres. Moreover, setting procurement prices substantially above market prices encouraged rent-seeking behaviour and corruption amongst public officials involved in the public procurement system. In order to send an effective signal to farmers the price needs to be announced prior to the planting season, not after.

Unsatisfactory performance of the domestic procurement programme in the past has been due, in particular, to:

- excessive public sector imports, particularly in years of good harvests (even in some flood years), which occupied warehouse space, severely restricting the ability to procure during the next harvest;
- farmers having limited access to procurement centres so that they are obliged to sell to private traders at a lower price.

Other limitations include: (a) too few procurement centres to allow for comprehensive coverage of producing areas, (b) limited Government financial resources; (c) institutional impediments to speedy purchases from and payments to small sellers; and (d) collusion between traders and officials, enabling traders to capture the margins between market and procurement prices. A sizeable share of procurement is from large farmers and traders, not small and medium farmers (Shahabuddin and Islam 1999).

Alternative Options: What we need to do?

Bangladesh faces really difficult challenges, given the way the regional and global rice markets behaved in 2007-2008. Inevitably there will be a strong political, even popular, pressure to hold much larger stocks. Some will remember or have learnt about Bangladesh's extraordinary vulnerability during the mid-1970s and will argue that Bangladesh should increase substantially the size of the public food stock. However, seeking greater food security in this way may not be the answer, or at least not the complete answer, as this paper implies. So what needs to be done? Some suggestions are offered below:

5. Key Policy Implications

- Improve the effectiveness of procurement and price support to the farmers, e.g., by introducing a system

of open tendering in order to reduce costs and improve the reliability of procurement.

- Facilitate rice exports at times of bumper harvests by improving the business climate. This would involve setting standards using independently accredited certification procedures to facilitate Bangladeshi exports and ensure higher quality for Bangladeshi consumers.
- Assess whether an emphasis on support to cereal production inhibits diversification into other high value and nutritious crops, such as pulses.
- Assess the economic feasibility of using private storage capacity, including the willingness of private traders to lease warehouses to government and/or hold temporary stocks on behalf of the government (and if private capacity is limited, provide capital on credit to traders to expand). The assessment should also take into account the high demands on scarce human resources in the public sector of managing public food stocks.
- Re-evaluate the role and effectiveness of food grain based safety net programmes and consider whether greater use of cash-based transfers (possibly combined with productive asset based transfers such as livestock, seed starter packs) is warranted; and whether targeting effectiveness and flexible use of stocks can be improved. This should include a review of other comparable countries' experience with food stamps and vouchers. It should also establish a less fragmented and more systematic information and surveillance system on the basis of which safety nets can be planned, timed and targeted.
- Recognise that output price support and input subsidies are complementary policies, not substitutes. Fertiliser subsidies may be superior to output price support for stimulating agricultural production, but an input subsidy cannot stabilise prices or prevent the collapse of post-harvest prices. Both policies are needed and the overall costs of these complementary policies should be taken into account in planning government interventions.
- Strengthen early warning systems both within the country (e.g., climate events) and regionally/globally to anticipate and prepare for possible future food price hikes and volatility.

- Explore broadening the sources of supply of food, rather than relying on the same regional partners.

6. Areas for Further Research: What We Need to Know?

Some important gaps in our knowledge base have been identified. There is a need to:

- analyse, in greater detail than has been done to date, domestic and international sources of food price variability (especially rice) and their implications for Bangladesh;

- develop more sophisticated methods (algorithms) to link information on national food stocks (government, private, household) after each harvest, with decisions on both fertiliser/diesel subsidies and fixation of procurement prices;
- make an explicit risk-based assessment of what is required to address specific threats to food security and also that reflect the Bangladesh food system as it has been evolving over the last 10-15 years.





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