Political Economy of State Interventions in the Bangladesh Food-grain Sector

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Contents

Abstract
1. Introduction
2. State Intervention in the Input Market
3. Intervention in the Output Market
4. Conclusion
References
Table

2.1 Summing up implicit and explicit subsidies on agricultural inputs (fiscal year 2007, in billions of Taka)
ABSTRACT

Policy analysts and researchers need to be aware, while making policy recommendations, of the political feasibility of their suggestions. At the same time, the policymakers need to be aware of the extent of the loss in economic efficiency that may be involved in policy choices designed to meet their political objectives. The range of political considerations affecting policy formulation is wide depending on the sectors and the particular circumstances of a country. This paper illustrates how the evolution of input/output policies in the food-grain sector in Bangladesh have been the result of interaction between various interest groups such as agricultural/rural and industrial/urban groups. The interaction between the diverse viewpoints and responsibilities of the various policymaking institutions engaged in making and implementing foodgrain policies have also affected the decisions of the government. In many instances, the donors engaged in financing development projects/programs in the relevant sectors/projects exercised varying degrees of influence on policy decisions. In a few instances, they joined hands with social scientists/economists in the government or in national think tanks who shared similar views. Experience and analysis has sometimes led to a reversal of policies. Similarly, events like the major world food crisis in 1973–1974 and again in 2007–2008 greatly influenced the policy deliberations in the direction of greater self-sufficiency in food supply and a reduction of import dependence. There have been changes over time in the relative emphasis on market forces and state intervention. A period of market liberalization was reversed in response to a shock such as supply scarcities in the world food market or bottlenecks/interruptions in the domestic marketing and distribution system. The attainment of an assured and stable supply of food for the growing population with an emphasis on the poor and the vulnerable was a political imperative. Similarly, the adequate and regular timely supply of inputs such as fertilizer to farmers was considered essential for ensuring domestic food production.

Keywords: food crisis, urban bias, suburbs, market failure, interest groups, price support, public food stock, safety net, donors, social scientists/economists
1. INTRODUCTION

Since the early 1960s, it was widely held that in most developing countries, there was an urban bias in economic policy, that is, bias against the rural population/economy and in favor of the urban population. This led to a relative emphasis on priority to urban industrialization in preference to agricultural development. This was reflected in fiscal, credit, and monetary policies as well as indirect intervention by the state in the agricultural markets, which discriminated against agriculture. The urban bias, it was argued, resulted from the weak political power of the farmers and hence their limited influence on policies in favor of agriculture. This was because the farmers were numerous, geographically dispersed with a limited resource base, and seldom organized for collective action. Consequently most often they did not constitute a politically effective pressure group for influencing economic policies. The urban sector, on the other hand, had a large number of industrial workers, often organized for collective action, as well as educated middle classes consisting of bureaucrats, professionals, and private-sector entrepreneurs. As a result of this difference between the urban and the agricultural/rural sectors, in terms of their ability to organize, lobby, and exercise pressure on the government, policies tended to be biased in favor of the urban sector and against the agricultural sector. In many instances, the policies were designed to extract resources, directly and indirectly, from the agricultural sector for the benefit of the urban sector; also it ensured supply of agricultural raw materials at low prices to feed industry and to expand exports.

Even though the nature and composition of interest groups in Bangladesh in a general sense conformed to the conventional pattern in developing countries as depicted above, there were some differences in details. In the first place, there was a distinction between the food grains (rice and wheat), on the one hand, and the rest of the agricultural sector, on the other. It was true that in the case of many nonfood agricultural commodities such as jute, including other industrial raw materials, in the past there were export taxes and restrictions on exports, which reduced prices in the domestic markets, have reduced domestic prices, and thus benefited urban industries. However, at the same time, a wide variety of the subsidies and incentives were provided to the food-grain producers. This was because there was in some ways a convergence of interests between the urban and rural areas in favor of the food-grain sector to enable food production at a low cost. Crop agriculture especially in Bangladesh was dominated by food crops; nonfood crops constituted a small proportion of crop agriculture or even of the agricultural sector as a whole. Low food prices kept industrial wages low, thus helped maintain the profitability of the industrial sector, and hence benefited the industrial entrepreneurial class. Investments in productivity-enhancing investments as well as subsidies to the food producers reduced the cost of food production. This was also beneficial to a large group of urban classes. This policy helped not only the low-income farmers dependent on market purchases for their food consumption but also the urban low-/middle-income group as well as the urban, including industrial workers; the latter tended to resort to street protests and demonstrations in the face of high food prices. Also, the favorable impact on the rural poor—net purchasers of food—had the effect of reducing the burden on their urban relatives/households with respect to remittances they needed to send to rural households.

Moreover, as a direct source of electoral votes, electoral constituencies remained largely rural. In other words, the ratio of rural to urban constituencies for election to Parliament did not correspond to the decline that had taken place in the proportion of the rural in the total population. Therefore, parliamentarians, even though they had urban economic interests, represented their rural constituencies and hence remained very sensitive and responsive to the needs and interests of the farmers, especially food producers, led to demonstrations and riots by the farmers who dominated their rural constituencies. Moreover, to the extent that the large and medium farmers were substantial beneficiaries of the input subsidies/output support policies and were often active members of the political parties competing for their electoral support, they constituted an important constituency or an interest group in the political landscape of Bangladesh.
Just two years after independence, Bangladesh faced a famine in 1974, which claimed 1.5 million lives. At this time food supplies were short in the world market; at the same time, the availability of foreign exchange resources to import food was severely constrained. The deaths, distress, and mass deprivation caused a great deal of popular discontent, which led to the fall of the government of the day in 1975 with far-reaching political consequences for the country. Since then, all successive governments in Bangladesh, irrespective of their ideological differences, have striven for self-sufficiency in food. In subsequent years, Bangladesh has suffered from food crises of varying proportions. Access to adequate and stable food supplies has been considered a high-priority objective in a country with an increasing population on a limited land area and a very high density of population per cropped area. A strategy of investment in irrigation, fertilizer, and a high-yielding variety of seeds during the succeeding years did result in increased per capita food production during the 1970s and 1980s as well as a decline in intrayear/interyear variations in food supply and prices, due partly to a heavy dependence on groundwater irrigation, which contributed to a more stable water supply and partly to the extension of cropping over different seasons.

During the late 1990s and early 2000s, the instability of food production reemerged due to the increasing frequency and intensity of weather shocks, aggravated by the extension of cultivation to more fragile areas owing to the pressure of population. The 2007–2008 food crisis was marked by (1) domestic production shortfalls, on the one hand, and (2) a very steep increase in world food prices, on the other. Restricted access to the world market due to export bans/restrictions in a number of food-exporting countries, especially India, main source of rice imports to Bangladesh, added to a rise in import prices for Bangladesh. The impact of this traumatic experience reemphasized once again the risks of dependence on world markets and was reflected in the address of Bangladesh’s prime minister in her opening address to the Bangladesh Food Security Investment Forum in 2010 as follows: “The unprecedented food crisis of 2007–2008 has compelled the entire world to attach high priority to food security. Particularly, it has been proven that the international market is an unreliable source of food at times of crisis and reminded us the need to exploit whatever comparative advantage we have in food production. In Bangladesh, the crisis has signaled a policy shift from self-reliance to self-sufficiency.”1 Because of high risks of political and social instability arising from food shortages and high prices, especially with their impact on the poor, both urban and poor, the government in Bangladesh has always been very concerned about shortfalls in food availability.

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2. STATE INTERVENTION IN THE INPUT MARKET

The Case of Fertilizer

The case of state intervention in the fertilizer market can be seen in the above context of the need for achieving an increase in self-sufficiency in food. In view of the low use of fertilizer per cropped area in Bangladesh, a substantial increase in the use of fertilizer by farmers held out the prospect of a rapid and sustained increase in food production. However, for this potential to be realized, it was essential to ensure a regular, adequate, and timely supply of fertilizer to farmers to meet the seasonal pattern of cropping, especially the Boro crop. It was, therefore, considered necessary to improve the efficiency of marketing and distribution of fertilizer. At that time, the state enterprises under the supervision of the Bangladesh Chemical Industries Corporation (BCIC) produced all the urea fertilizers, which were supplemented by imports of a small amount of nonurea fertilizer. The marketing and distribution of fertilizer, which started with the very heavy involvement of the state during 1970s, underwent a process of gradual liberalization during 1980s up to the mid-1990s with a greater role of private traders at both the wholesale and the retail levels. In the first stage, the retail trade was liberalized, and in the next stage the wholesale trade was also liberalized with the progressively greater participation of private traders.2 The process of liberalization, that is, speed and pattern, was greatly influenced by donors. They were heavily engaged in financing of imports of fertilizers as well as in the education and training of farmers in the use of fertilizer since in the early days fertilizer was a new and unfamiliar input for the farmers. Thus, the policy change in the direction of liberalization in the early stages did not emerge so much out of a change in the conviction of the policymakers as much as a willingness to meet the preference of the donors. At the same time, the donors financed large investment in (1) the extension of irrigation as well as (2) research and development, leading to high-yielding seeds and so forth that contributed to a high rate of growth in food production, which created a comfortable food supply situation outlook and provided a sense of security and assurance about the food supply. This, in turn, created a favorable climate of opinion for liberalization. A relatively abundant food supply and a fall in the real price of food encouraged a reduction in the degree of state intervention in the marketing and distribution of fertilizer.

At the same time, there were other steps taken toward the liberalization of the food-grain sector. The irrigation system, which to begin with consisted of the state-owned and -operated large-scale irrigation projects turned toward a greater emphasis on private enterprise. First, there were low-lift irrigation pumps drawing on myriad rivers crisscrossing Bangladesh, owned and operated by a private farmer or a group of farmers; second, there was the development of privately owned, small-scale, deep and shallow tube-well irrigation relying on groundwater. By 1992–1993, there was a total liberalization of the fertilizer market, leaving the marketing and distribution of fertilizer to the private sector; however, production and imports were in the hands of the state-owned enterprises.

However, in 1994–1995, there was a crisis in the fertilizer market marked by a shortage and very high price of fertilizer in the very season, that is, the Boro season (major user of fertilizer), in which fertilizer was in great demand. The demand for fertilizer is seasonal for the major rice crop, that is, the Boro crop; fertilizer is needed in the early months of the calendar year. At that time if fertilizer use is delayed, it has the same effect as fertilizer denied. The shortage and high price of fertilizer led to large-scale peasant demonstrations involving the looting of fertilizers from warehouses and railways.

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2 It may be useful to put the role of the state in the food-grain sector into the wider perspective of the general policy of state intervention in the economy as a whole, which evolved over time. The early years of the 1970s and 1980s were marked by wide-ranging state intervention, extending from state ownership to the regulation of economic activity in the various sectors, including agriculture, industry, finance, and trade. The early leaders of independent Bangladesh followed the worldwide trend, especially in the newly independent developing countries, in supporting a major role of the state in the economy. However, there was a gradual shift of policy, partly as a consequence of the experience of policymakers about the limitations of the role of the state in the economy, which led to a gradual introduction of a greater role for the private sector. The policy of decontrol and liberalization of markets started in the 1980s and was accelerated during the 1990s and 2000s. The speed and pattern of policy changes over time with respect to state intervention in the markets were also to some extent affected by the views of social scientists and economists about the rationale and limitations of market intervention by the state.
to riots and violence, resulting in a confrontation with law-enforcing agencies and the death of a number of farmers. As a result of this political crisis, there were resignations of ministers and high officials in the government who were in charge of the implementation of the fertilizer policy. This was a traumatic experience for the government, leading to a reappraisal of the liberalization policy.

At the same time, there were differing views among economists about the reasons for the fertilizer crisis. There were those who held that the crisis was due to market failures; neither the wholesale nor the retail trade was competitive. A highly market-competitive structure could not be developed for two reasons: the market was not large enough to allow the emergence of numerous traders, each with the optimum size of trading volume, and there might have been no possible free entry because of lack of finance and experience. This view was strongly held by the proponents of market failure, even though not enough research-based evidence was available on this issue. Even though the BCIC produced and supplied fertilizer to the traders on the basis of its own assessment, it did not actively predetermine the number of wholesale traders; however, it approved the traders who were qualified on the basis of a few eligibility criteria such as experience or command over finance. It should be noted, however, that the supply chain of fertilizer from the production and import of fertilizer to the wholesale and retail trade was split between the government enterprises for production and imports and the private sector, which was responsible for the wholesale and retail trade. Therefore, there was scope for the apportionment of responsibility for the crisis between them. The bureaucrats and economists who were the proponents of market failure argued that the magnitude of the rise in price was not justified by the extent of the shortfall in supply. The rise in price was greatly aggravated by the traders, who withheld supplies from the market and raised prices to earn excess profits. Whether the excessive rise in prices was the result of market manipulation or of speculative behavior of the traders in response to price expectations was not clear.

Those who believed in government failures held that the bureaucratic process of decisionmaking was slow; there was no system of rapid sharing of information between the state agencies responsible for the different segments of the supply chain and for their follow-up action. The three functions—demand forecasts, supply of fertilizers from domestic production and imports, and selling price of fertilizers to the traders—were in the hands of the different agencies working independently of each other. If the agency responsible for the forecast of demand made wrong estimates and did not coordinate with the agencies responsible for supply, a significant imbalance between supply and demand could occur. If the prices fixed by the state agencies for sale to wholesalers did not take this imbalance into account, the prices prevailing in the market were likely to be different. There was no system for monitoring supply and demand on a regular basis while determining the ex-factory prices, meaning, prices charged at the factory gate, of fertilizer by the state agencies. This contributed to possible instabilities in supplies and prices in the market. For example, the state enterprise producing fertilizer, being unaware or unsure of the prospective domestic demand, exported a short time before the onset of the crisis a certain quantity of fertilizer to take advantage of the prevailing high price. This accentuated the subsequent rise in domestic price and aggravated the crisis. No matter how much the rise in prices was due to the shortfall in supply or the underestimation of demand as stated before, there was a political crisis as evidenced by the resignation of the ministers of the government. In this crisis atmosphere, there was strong support among policymakers, the public, and the media for the hypothesis that the market was manipulated by traders. This led to a reversal of policy, that is, a reintroduction of government intervention in the marketing and distribution of fertilizer.

The return to government intervention was facilitated by the fact that to start with, in the earlier years of liberalization in the 1980s and 1990s, several state agencies were reluctant participants. For example, the Bangladesh Agricultural Development Corporation, which was initially responsible for the marketing and distribution of both domestically produced and imported fertilizers, was reluctant to give

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3 One important element in the imbalance between supply and demand for fertilizer over time is the lack of adequate storage capacity to even out the variations in supply and demand over time. In view of the high cost of storage, including the possibility of spoilage or deterioration of quality during the period of storage, there was not adequate storage capacity and financing of storage. Not much attention was paid to this issue by policymakers.
up its power and responsibilities and had only a half-hearted commitment to the process of liberalization initiated by the government. The crisis created an opportunity for it to vindicate its support of market futures and to welcome the return to market intervention. The dealers/traders, appointed by the Bangladesh Agricultural Development Corporation and BCIC, constituted yet another vested interest group in favor of the return to the regime of market intervention and regulation. Free access to the ranks of dealers/traders supported by generous access to credit was likely to reduce their profits, including a large scarcity margin at times of shortages. They would naturally prefer a closed group of selected traders.

It was a natural tendency on the part of politicians, especially in a crisis situation like that of 1994–1995, not to rely on market forces but to assert direct control over the distribution and marketing of supplies, which made them feel more secure and confident. In 1995–1996 there started a process of reversal of policy in the direction of increasing the role of the state in the chain of fertilizer distribution from the wholesale to the retail level. It should be noted that subsequently there were periodic crises marked by shortages and high prices of fertilizer that were mostly located in different regions of the country; they did not cover the entire country, nor did they result in as much of a price hike as occurred during 1994–1995. Nonetheless, they did lead to public protests and demonstrations, even though not as serious as those in 1994–1995. Every time they did create apprehension of wider social and political consequences. During the period starting with the 1994–1995 crisis and followed by various fertilizer crises in subsequent years, especially in 2006–2008, the government experimented with various alternative methods of intervention in the marketing and pricing of fertilizer. The world food crisis of 2007–2008 added further impetus to the process even though it was a crisis concerning the shortage and high price of food, not a fertilizer crisis. The period following 2007–2008 saw a further tightening of control and regulation, first through the appointment of traders by the government and then through close monitoring of the supply and demand of fertilizer and then through the supply chain up to the local level. There was more regulation and control of the distribution and marketing of fertilizer at the wholesale level rather than at the retail level.

Following 2009, the appointment of dealers was in the hands of the relevant local administration, including members of Parliament. This was a power of not inconsiderable patronage, which they were eager not to abandon. There were frequent complaints by farmers that the appointment of dealers was influenced by political considerations rather than by the dealers’ experience and efficiency in fertilizer trading. Thus, the local politicians who exercised political patronage in the appointment of traders had a strong interest in the maintenance of the system. This raised the cost of retail distribution insofar as inexperienced politically appointed traders, often lacking finance, sold their permits to regular professional traders, thus earning rents in the process and raising the cost of fertilizer to the farmers. The “indicative” price that the government fixed for the sale of fertilizer by retailers was ineffective more often than not. The local politicians, therefore, had the power to maintain a body of “renters” who were loyal to them and who could serve to promote the election prospects of the politicians.

The period following 1994–1995 was marked not only by a reversal of state intervention in marketing and distribution but also, it is important to note, by the reintroduction of subsidies for fertilizer. Along with changes in the system of marketing and distribution of fertilizer marked first by control and regulation, then by liberalization, and then again by the reintroduction of control and regulation, there were corresponding changes over time in the role and extent of fertilizer subsidies. Starting with considerable subsidies in the early 1960s and 1970s, there was a gradual reduction until they were abolished in the early 1990s. The abolition of subsidies can be traced, as in the case of state intervention in marketing, to the favorable food supply situation as well as to donors’ eagerness to do away with subsidies. Fertilizer subsidies were reintroduced in 1996–1997. In view of the (interyear) fluctuations in fertilizer prices (especially in the world market) as well as the fluctuations in food prices, the rates of subsidies were frequently varied to stabilize the food-fertilizer prices ratio and thus to contribute to the stability of food production (Mujeri and Shahabuddin 2012).
The arguments in favor of fertilizer subsidies were several and varied, ranging from their role in reducing cost of, thus increasing profitability of, and thus stimulating food production. In addition, there were considerations of equity among farmers of different sizes as well as between different sectors of the economy, that is, the food-grain sector vis-à-vis other sectors of the economy. An argument in favor of the input subsidy was that by reducing the cost of production, it increased food production and thus helped replace food imports. Thus, it increased self-sufficiency in food. The food crisis of 2007–2008 reinforced the case of subsidy as instrument for increased self-sufficiency. Even in normal times, this was considered a desirable sociopolitical objective that justified subsidies. In fact, a wide range of input subsidies were provided to the food-grain sector to increase food production. For example, there were subsidies for diesel oil and electricity for irrigation pumps. The shallow (small) tube wells that accounted for 94 percent of the irrigated land received diesel oil at a subsidized price. In 2007–2008, the import parity price of diesel oil was Tk 54.10 (in Bangladeshi Taka) per liter, while the retail price was Tk 40.00 per liter, resulting in a subsidy of Tk 22.40 billion for 1.6 billion liters of oil used by 1.3 million diesel-powered pumps. The electricity needed by irrigation pumps was rather limited. Even then farmers paid in 2007–2008 a tariff rate of Tk 1.93 per kilowatt-hour while the cost was Tk 2.80 per kilowatt-hour, resulting in a total subsidy of Tk 7.6 million to the agricultural sector. In addition, the share of agriculture in the implicit cost of gas subsidies to the power sector was about Tk 14.7 million. The total implicit subsidy for electricity was therefore Tk 22.3 million or Tk 0.2 billion. As the international price of diesel went up, so also the subsidy went up to keep the domestic price low. For example, in July 2008, the price in the international market was Tk 78 per liter, and the domestic price was Tk 55 per liter. To ensure an uninterrupted supply of electricity, the government required the closure of shops after 8 p.m. in urban areas in the year (World Bank 2010, 73).

Table 2.1 Summing up implicit and explicit subsidies on agricultural inputs (fiscal year 2007, in billions of Taka)

<table>
<thead>
<tr>
<th>Input</th>
<th>Explicit</th>
<th>% agricultural GDP</th>
<th>Implicit</th>
<th>% agricultural GDP</th>
<th>Total</th>
<th>% agricultural GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urea</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Domestic production</td>
<td>5.40</td>
<td>0.6</td>
<td>13.60</td>
<td>(cross-subsidy through gas supplies from Bangladesh Oils, Gas, and Minerals Corporation [BOGMC] to Bangladesh Chemical Industries Corporation)</td>
<td>1.6</td>
<td>19.00</td>
</tr>
<tr>
<td>Import</td>
<td>28.30</td>
<td>3.3</td>
<td>0</td>
<td>0</td>
<td>28.30</td>
<td>3.3</td>
</tr>
<tr>
<td>Nonurea</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diesel</td>
<td>6.70</td>
<td>0.8</td>
<td>22.40</td>
<td>(operational losses incurred by Bangladesh Petroleum Corporation)</td>
<td>2.6</td>
<td>22.40</td>
</tr>
<tr>
<td>Electricity</td>
<td>0</td>
<td>0</td>
<td>0.2 (operational losses of Bangladesh Power Development Board [BPDB] and cross-subsidy through gas supplies from BOGMC to BPDB)</td>
<td>0.002</td>
<td>0.02</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>40.40</td>
<td>4.8</td>
<td>36.02</td>
<td>4.2</td>
<td>76.42</td>
<td>9.0</td>
</tr>
</tbody>
</table>

Note: GDP = gross domestic product.
Yet another political economy consideration was often advanced in favor of subsidies to agriculture. Various direct and indirect subsidies were received by the other sectors of the economy such as subsidies provided to the infrastructure sector as well as energy subsidies and various tax and credit incentives enjoyed by the industrial and commercial sectors. In this context—subsidies and other forms of state-financed resource transfers to the various sectors of the economy—there was no strong argument against subsidies to the food-grain producers for agriculture in general, since they contributed to the maintenance of the intersectoral balance or equity between the agriculture sector and other sectors. In a world of widespread market imperfections, to attempt to correct imperfections in one market, that is, by eliminating subsidies to the food-grain sector, while imperfections were allowed to continue in the other markets, did not necessarily ensure an optimum intersectoral allocation of resources.\(^4\)

An additional argument for subsidies relates to the consideration of equity between farming households. Small farmers, in view of their resource constraints including limited access to credit, were unable to use the required amount of fertilizer. However, in some cases, available evidence about the use of fertilizer by farmers of different sizes did not conform to the hypothesis that small farmers used less fertilizer per acre than medium and large farmers. At the same time, it was argued that the available data on the amount of fertilizer used by different farm sizes did not necessarily refute this hypothesis that in the absence of subsidies small farmers would not use as much fertilizer as others, because no counterfactual was available and the existing data referred only to the use of subsidized fertilizer. Moreover, in the absence of access to credit, it could be that small farmers reduced their consumption expenditure to buy fertilizer.

The various government agencies had different responsibilities and interests and had different viewpoints about input subsidies. The Ministry of Industry, in charge of BCIC, owned and managed the fertilizer factories, which were inefficient and high cost, and therefore had a vested interest in subsidies to market their output below their cost of production. BCIC, which was responsible for the domestic production of fertilizer, received two sets of subsidies; it received in the first place the supply of gas at a subsidized price. Second, the ex-factory price at which it sold fertilizers in the domestic market was subsidized; that is, the selling price was less than its cost of production. Moreover, its cost of production was frequently higher than the import price.

At the same time it was recognized that a lower price of fertilizer due to subsidies could encourage (1) the use of fertilizer as a substitute for other chemicals in the industrial sector and (2) the illegal export of fertilizer to neighboring countries when prices across the border were higher. Accordingly, the possibility of diversion of fertilizer to nonagricultural sectors or across the border was sought to be reduced by state control of the supply and distribution of fertilizer. This is not to suggest that there was no possibility of leakage and diversion of sales from the regulated system of marketing and distribution.

The food crisis of 2007–2008 led to further emphasis on fertilizer subsidies as an instrument for increased self-sufficiency. The marketing and distribution of fertilizer was brought under an elaborate system of control and regulation along with an increase in imports of fertilizer. Measures were taken to ensure an increase in domestic food production without interruptions in supply. For example, at times a shortage of electricity led to outages and breakdowns in power supply, adversely affecting fertilizer production as well as irrigation. Frequently, the government diverted the distribution of electricity from urban consumption and nonessential industrial production to the rural areas to ensure that the irrigation

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\(^4\)The argument for and against subsidies in the field of agriculture in one form or another seems to go on unabated. As late as 2014, the World Economic Forum in Davos, Switzerland, continued to debate the issue. Two participants from developing countries, that is, an ex-minister of agriculture for Africa and an executive of a farmers’ organization in Asia, strongly questioned the rationality of arguing against input subsidies for promoting agricultural development in poor countries; one argued that the cotton subsidy to a few cotton producers in the United States resulted in depressed prices in the world market and imposed the loss of millions of dollars for poor farmers in cotton-exporting countries. In this context, the use of subsidies to encourage food production, especially for small farmers in low-income, developing countries was defensible. At the same time, a representative of the private sector, that is, the executive of a large international agricultural reinsurance company, argued that even in developed countries, farmers were subsidized in order to lower the premium for crop insurance, and therefore the argument against subsidies in developing countries was not very strong.
system dependent on electricity did not suffer.\(^5\) Also, at times of shortfall in the supply of gas, to avoid
the disruption of the gas supply to the fertilizer factories, the government reduced the supply of gas to the
power-generating plants. Thus, the politicians, mostly with immediate electoral results in view, were
anxious to avoid policies that had an immediate/short-run adverse impact on rural farmers.

However, the views of donors relating to input subsidies in the past were not wholly inflexible
and did not remain unchanged, especially during the food crisis of 2007–2008. The World Bank, in its
response to the food crisis of 2007–2008, did come out with support for fertilizer subsidies in the context
of high fertilizer and fuel prices to stimulate food production in the short run (World Bank 2009). At the
same time, it recommended improved linkages between input subsidies and social safety nets to enhance
the productive assets of the poorest and promote their potential access to inputs. It supported targeted
fertilizer supply by means of vouchers provided to poor farmers linked to purchases of fertilizer from the
existing private marketing system. Subsidies should be provided for a limited period with a clear schedule
for phasing them out (World Bank 2013). At the same time, the balance of opinion among the
specialists/experts, even though there was no complete unanimity among them, shifted over time; during
the early 1990s, it moved in favor of the reduction, if not total elimination, of subsidies as happened in
The views of the various government ministries and agencies involved in fertilizer policy were sometimes
divergent but supported at the end the introduction of subsidies.

The idea was raised from time to time that for the purposes of stimulating food production, there
was a choice between input subsidies, on the one hand, and on the other, expenditures on water control
and irrigation, research and development, and education and extension, that is, the whole range of
productivity-enhancing investments. Over time, agricultural subsidies absorbed an increasing proportion
of public expenditures on agriculture while at the same time, public investment in research, extension,
flood control, water control, and other projects fell from 5.2 percent of total public expenditures to 2.7
percent between 1999 and 2007 (World Bank 2010). Even though estimates of the rates of return on
competing investments compared to input subsidies in Bangladesh were not available, it was generally
believed in light of studies done elsewhere in the developing world that the returns were higher on other
investments (Mudahar and Ahmed 2010). Moreover, there were other ways, besides input subsidies, of
reducing farmers’ costs in the short run such as the expansion of credit facilities, especially oriented
toward small and marginal farmers, as well as lowering import tariffs on agricultural implements such as
tillers, tractors, threshers, and so forth.\(^6\) There was an urgent need for evidence-based research on relative
costs and benefits of alternative public expenditures on the agricultural sector. They might at least
encourage an informed debate among public intellectuals, different interest groups, and the relevant
ministries/departments of the government.

\(^5\) In 2012, Boro rice was cultivated on 4.8 million acres, and out of this, 250,000 acres were irrigated by electric pumps/tube
wells. In most of the rural areas served by the Bangladesh Rural Electrification Board, the transmission lines suffered from heavy
overloading. There was excess demand for electricity on the part of farmers needing electricity-operated tube wells. In view of
the shortage of electricity for the electricity-operated irrigation equipment during the Boro season, from early evening onward,
that is, from 8 p.m. onward, all commercial establishments and shops were to close down to save electricity. Similarly from 6
p.m. to 11 p.m., all industries were to stop using electricity from the national electric grid, relying only on their own operators in
the Boro season (Prothom Alo 2013).

\(^6\) The cost of fertilizer per acre was about 11 to 13 percent of the cost per acre for Aman and Boro rice crops. The ratio of
cost of fertilizer to the total cost of production has declined over the years; it was higher in the 1980s and 1990s. About 31
percent of borrowing by farmers was intended for the purchase of fertilizer. Therefore, directly reducing the cost of fertilizer was
preferred to the reform of the institutional credits system, which to date was not very successful (Akhter 2013).
However, there were political economy considerations that might explain the preference for input subsidies over other measures for increasing productivity and thus reducing the cost of production. The impact of input subsidies on increases in production was realized in the short run, whereas other productivity-enhancing or yield-increasing investments not only yielded returns in the long run but also required at the same time a sustained improvement in management and institutional capacity, including professional competence, which was also a time-consuming process. The results of such expenditures were realized a long time after the tenure of a government, if elected, that did not endure more than a few years. The impact of subsidies was felt in the short run and brought electoral benefits. The government of the day was, however, willing to expand, if resources permitted, expenditures on long-term productivity-enhancing measures, but only in addition to subsidies and not in lieu of them.
3. INTERVENTION IN THE OUTPUT MARKET

As with fertilizer policy, there had also been an evolution of policy regarding intervention in the food-grain market. Food-grain policy had several objectives: (1) to provide incentives, that is, price and profit incentives to the farmers for achieving a long-run and sustained increase in food production (given the role of productivity-enhancing policies and investments), and (2) to provide food to all consumers (including the net purchasers of food among the farming population). To the extent that the fulfillment of the objectives (1) involving the high price of food went against the objective, (2) the policy was to provide entitlements in the form of food transfers to consumers whose income did not provide adequate access to food. In addition to the above objectives, there was the short-run objective of stabilizing food prices in the face of interyear and intrayear fluctuations in domestic food production, imports, or prices in the world market. The objective was to ensure that (1) the excess supplies in a year or a season did not drive prices below the cost of production of farmers involving losses and (2) supply shortages did not raise prices to such high levels as to cause deprivation for consumers, especially the poor.

The major instrument for achieving these objectives was to maintain and skillfully manage adequate food stocks required for the above purposes. However, the requirements of the public food distribution system, that is, food-based safety net programs, through public food stocks could be met without the stocks necessarily, at the same time fulfilling the other two objectives.

The subject of fertilizer subsidies versus the food-grain price support policy to expand food production has been debated over the years. In fact, the donor community led by the World Bank strongly advocated the case for the food price support program during the 1970s and 1980s (World Bank 1977, 1979, 1992). It was argued that the food-grain price support policy allowed high income for farmers, leaving them the freedom to choose the optimum combination of inputs, based on relative costs and returns, whereas the fertilizer subsidy as an instrument for reducing costs and increasing profits resulted in allocative inefficiency and encouraged the overuse of fertilizer in relation to other inputs. However, detractors of the price support program argued that it benefited only the surplus food producers whereas the input subsidy covered all farmers. Moreover, a price support program that raised food prices reduced the real income of deficit farmers who purchased food in the market. Moreover, as the reduction in their real income due to the higher price of food reduced their ability to mobilize working capital for the purchase of inputs, they would be obliged to borrow at high cost from the informal credit market and thus face a higher cost of fertilizer. Moreover, the challenge of managing public food stocks involving a timely procurement of food grains from the farmers through publicly managed and widely spread countrywide purchase centers as well as selling them at the right time to ensure a predetermined price margin for farmers was considerable. It involved not only high costs but also risks of spoilage and of deterioration in quality. The consequent need to roll over the stocks by buying and selling in the market in such a manner as not to destabilize the food-grain market added to the challenge. Moreover, to determine the appropriate size of public stocks and the procurement price was not an easy task. The subsidy policy was relatively easy to manage; domestic production by a few state-owned factories and imports was either directly undertaken by the government or regulated by the government. At the same time, distribution of fertilizer among the farmers was relatively easy as it was organized through the appointment of wholesale and retail traders/distributors by the government. The risks and difficulties of managing an input subsidy program were deemed more manageable than those of the output price policy.

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7 It needs to be stressed that while input subsidy and output price support may be considered alternatives for stimulating production, input subsidy cannot directly contribute to stabilization of prices, nor can it prevent a fall in output prices. They can be considered complementary; for example, input subsidy could stimulate the use of yield-enhancing input by reducing uncertainty and reducing cost.
The government decided to meet the objective of stimulating the food-grain policy by relying mainly on the policy of input subsidies rather than on the output support price policy. In the long run, there was more of a consistent trend toward the liberalization of the output market rather than the input market such as the reduction of input subsidies; the speed and extent of output market liberalization depended on such considerations as, for example, the (1) evolving demand-supply balance in the food-grain market and (2) relative ease of implementation of the different sets of food-grain policies.

A subsidized generalized public food distribution system based on public food stocks started in preindependence days and continued through the 1970s until the 1990s. The system covered almost all the urban population in the early years; it was supplemented for a brief period by a rural rationing system that was abandoned soon due to very heavy leakages and mistargeting. Also, the urban public distribution system over time was reduced in size. This was because recourse by urban consumers to the public distribution system came down to a very small amount. This was due to the improvement of the food supply situation and a consequent decline in the open market prices. Purchases from the market became the dominant source of food supply to consumers, excepting the poor and the vulnerable who were provided cash or subsidized food as part of safety net programs from the 1990s onward. The objectives of short-term stability were sought to be dealt with either by resort to imports or through the use of public food stocks obtained through public procurement from farmers during the seasons/years when prices were low and selling the stocks when prices were high. However, the policy of public food stocks to serve its above-stated objectives faced a great impediment with respect to the implementation of the procurement policy. The role of the procurement policy in influencing the market price for farmers depended on the volume of procurement as well as the price at which the procurement was made. The amount of procurement in practice was limited by the budgetary resources available for the purpose as well as by the paucity of purchase centers and the inability to speedily purchase from and pay small sellers; collusion between officials and traders was often cited as a reason for its limited success (Shahabuddin 1996; Shawkat Ali et al. 2008; Ahmed 1980; Quasem 1980). Although the government tried haltingly to use public stocks to mitigate or prevent price hikes by selling from the public stocks, it was not much of a success. There was, however, a small amount of open-market sales from public stocks at times of high spikes in prices in selected urban areas in one or two major cities. The amount was very small and did not make a difference. Thus, overall, the amount of open market sales was inadequate to prevent price hikes during lean seasons or in years of shortage.

Thus, in light of the foregoing, state intervention in the food-grain market did not contribute, in view of its limitations, much to price stability. From the mid-1990s (1994–1995) onward, private imports of food grains did play an increasing role in stabilizing the rise in the domestic price of food grains (Bangladesh, MFDM 2008; Shawkat Ali et al. 2008). This was due to liberalization of the food-grain market in the 1980s since prior to this period imports were solely undertaken by the government. Over time, there was increasing participation of private trade, and the role of public imports was very small except in the case of food aid. The focus of the policy of public stock management was thus much less on ensuring support or minimum prices for the farmers and much more on protecting the targeted group of the poor and the vulnerable from the adverse effects of high prices predominantly by means of food-based safety net programs in kind (Shawkat Ali et al. 2008; Chowdhury and Haggblade 2010; Mudahar and Ahmed 2010; Shahabuddin 1996). The safety net programs of the poor also had a large component of cash transfers. The public food stocks were partly built up through domestic procurement but very largely through imports. The system of public distribution of food was flexible enough to adjust its size in

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8 The objective of ensuring support prices and preventing a fall in prices in harvest times was to be met principally by farmers and traders through the operation of private stocks in the markets. There were those who argued that increases in private stocks should be facilitated by the construction of warehouses, either private warehouses with public assistance such as credit or public warehouses to be rented to the private sector. In this role, public stocks designed for targeted food distribution to the poor and the vulnerable were to work as stocks in transit as the food grains were to pass from imports or domestic procurement to the various target groups.

9 The share of the food distribution in kind for the targeted group of poor households in the total public distribution system increased from 6 percent during the 1960s, to 12 percent during 1970s, to 33 percent during 1980s; it increased to 37 percent
response to changing circumstances, that is, the degree of rise in prices and the severity of its impact on
the poor and the vulnerable. For example, following the food crisis of 2007–2008, the amount of targeted
distribution was expanded.

In this context, it is relevant to analyze how the decision about the size of public food stocks was
affected by divergent interests of two ministries with different responsibilities with respect to food policy.
The Agriculture Ministry was responsible for food production, and the Food Ministry was responsible for
the public food distribution system by maintaining adequate food stocks. Two ministries produced
different estimates of domestic production. The Agriculture Ministry, which was responsible for
increasing food production, had an institutional incentive to make an optimistic estimate of domestic food
production since it reflected well on its performance. On the other hand, if the estimates of domestic
production by the Agriculture Ministry eventually turned out to be inadequate, the Food Ministry would
be faced with the prospect of a lower domestic procurement to build up public stocks. This would
jeopardize the public food distribution system for which the Food Ministry was responsible. Accordingly,
to avoid the risk of being faced with a shortfall in stocks, it had the incentive to underestimate domestic
production and overestimate the need for imports. Eventually a compromise was reached to arrive at an
estimate, keeping in view the concerns of the Ministry of Finance in economizing on the budgetary costs
of food stocks. Apart from the costs of procurement of food grains, the administrative costs of
maintaining and managing public food stocks were high.

As is evident from the above, the driving force behind the liberalization of food-grains policy
consisted of several elements: a substantial increase in food production resulting in a fall in market price
of food and a consequent fall in demand for food available under the public distribution system and the
efficient performance of the private sector in undertaking food imports speedily and efficiently in
response to a rise in food prices. The increasing role of private food imports was largely due to the strong
recommendations of donors in this regard. The progress of the liberalization policy was also partly due to
the role of reform-minded officials in the relevant ministries, especially food and agriculture ministries,
who were willing to experiment and learn from experience. The role of the Ministry of Finance in seeking
to minimize budgetary costs was also important.

4. CONCLUSION

The evolution of input/output policies in the food-grain sector over the years has been the result of interactions and interplay between the various interest groups, such as agricultural/industrial and rural/urban as well as various policymaking institutions in the government, that is, ministries/agencies involved in food policymaking and implementation. Also, the donors engaged in assistance to the sector have had their own views about the efficiency of alternative policies and exercised considerable influence on policy reforms. Similarly, the economists/social scientists who often differed among themselves regarding the costs and benefits of the alternative policies have influenced the speed and extent of reforms over the years.

In the ultimate analysis, policymakers had the overriding objective of achieving an increase in food production and in food self-sufficiency in the face of an increasing population on a limited area. In addition, the policymakers had the objective of ensuring as far as possible access to food to the poor and vulnerable as well as to those interest groups that were not so poor and had political influence. These included the urban middle class and organized urban labor force. Medium and small farmers, on the other hand, wanted inputs including fertilizer (a major input) at low prices to enhance the profitability of their production.

Both the food grain and fertilizer markets witnessed heavy state intervention from the early days of the 1970s. This intervention was in conformity with the economic and political ideology of the time, when the state played a major role in the economy as a whole. It was argued that such interventions promoted both efficiency and equity. However, subsequently, experience and analysis led to changes in the role of the state. Later, in the 1980s, there was a gradual reduction of state intervention in the economy as a whole. At the same time, there was a step toward liberalization of agricultural markets. The process of liberalization in the food market was faster than in the fertilizer market. There were very few occasions—only for a season or two—when market prices of food fell below costs of production. Therefore, the main concern was with occasional high prices of food and their consequent adverse impact on the poor. However, both the food and fertilizer markets faced periodic crises, marked by shortages and high prices. These crises did lead to disruptions in the process of liberalization, more so in the input market, that is, fertilizer, than in the case of food.

During the late 1990s and early 2000s, there was a somewhat greater tilt toward government intervention in input markets to provide adequate input supplies at low prices rather than ensure remunerative food-grain prices for producers that might adversely affect consumers. The low subsidized prices for inputs increased profitability for food production at the same time that consumer prices remained low. This helped reduce the tension between remunerative prices for producers and affordable prices for consumers. The food shortage and high prices were met by increased imports and not by increased regulation of the market.

The world food crisis of 2007–2008 was upsetting to the world food market and had adverse effects on the food supply situation in Bangladesh. This was compounded by an export ban on rice by India, the sole source of rice import at that time. At the same time, the crises in fertilizer markets led to tighter control by the government on the marketing and distribution of fertilizers. The influence of donors’ recommendations and analyses was important throughout the period. Their recommendations about fertilizer subsidies, after the 2008 crisis, were more flexible. They were in favor of input subsidies, such as fertilizer, along with an increased supply of fertilizer to obtain a quick increase in food production, provided the subsidy program was reduced over time and eventually terminated as the food situation improved. However, in the case of food-grain policy, the recommendations were in favor of minimum dependence on public food stocks and on a major reliance on international trade as a means of stabilizing food prices. In fact, Bangladesh’s own policy preference coincided with this general approach. As a result of this traumatic experience, the political imperative of increased self-sufficiency in food and reduction of dependence on unreliable and uncertain world food supplies received great impetus. This in turn led to efforts to ensure regular, adequate, uninterrupted, and timely supply of fertilizer to meet the
seasonal pattern of food production. In the case of fertilizer, imports were a small proportion of the requirements. The major effort was to coordinate the supply of fertilizer from domestic production and from imports and to encourage smooth distribution.

There was yet another external influence on the policies. This related to the examples/experiences of developed and other developing countries, which had an impact on how policymakers viewed the nature of appropriate policies. All developed countries had a variety of subsidies for the agricultural sector, relating to both input and output. The examples of the United States and Europe were often discussed by the experts and policymakers in Bangladesh; they, especially the politicians/policymakers, were perplexed as to why the developed countries that themselves resorted to agricultural subsidies of all types should object to Bangladesh’s following their example. Many of them argued that the developed countries did not want poorer developing countries like Bangladesh to develop their agricultural sectors for fear that they might emerge as competitors in the world market, thus adversely affecting their exports and even offering competition in their domestic markets.10

In a recent communication to the author, a retired senior member of Bangladesh’s civil service explained the rationale of subsidies as follows (personal communication, A. M. M. Shawkat Ali, January 29, 2013):11 “subsidy encouraged the affordability of fertilizer for the small and marginal farmers; … lowered the cost of production; … depressed the price of rice for the urban and rural consumers.” When questioned about the political rationale for subsidies, his response was as follows: politically, it was a means to convince voters that the government was supporting poor farmers who constitute the majority of the voters. The other arguments of the policymakers were that (1) even in developed countries, agriculture subsidies prevailed, (2) all the neighboring South Asian countries followed the same policy although modalities might be different, and (3) the biggest South Asian country, India, followed the same policy.

The balance of opinion in Bangladesh seemed to be veering toward a judicious combination of input subsidies and output support in the short run, depending on the particular circumstances and the political compulsions at the time. The experts and policymakers generally agreed that in the long run—how long the run would be was a matter of dispute—a reduction in subsidies as well as in price control or intervention in the marketing and distribution system of inputs was desirable, provided competitive market conditions prevailed, supplies were abundant, and access to the world market was unhindered. At the same time, there was stronger support for the view that the objective of poverty alleviation/equity should be dealt with, to the maximum extent possible, by a food-based safety net and other income transfer programs.

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10 The author, during his days as a policymaker in the government, reported on a few occasions to his counterparts in developed countries the views of policymakers/politicians in Bangladesh. His counterparts’ response was twofold: One argument was that intervention in the agricultural markets, including subsidies, were indeed very inefficient but that developed countries were rich and therefore could waste resources, which waste in any case was small as a proportion of national income. For developing countries like Bangladesh, such costs were high especially since they are constrained for financial resources; they could not afford to nurture inefficiencies and waste resources. The second argument was that developed countries, while wasting other resources through subsidies, did not seek aid and assistance from developing countries like Bangladesh. They did not want their aid to sustain inefficiencies in the economies of recipient countries.

11 He was involved in policymaking as a senior bureaucrat in the Ministry of Agriculture during the 1990s and later served as a minister/adviser in the government during 2007–2008.
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