

**Voluntary Report** – Voluntary - Public Distribution

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**Report Name:** Russia-Ukraine War Impact on Fertilizer Supply and Use in Bangladesh

**Country:** Bangladesh

**Post:** Dhaka

**Report Category:** National Plan, Policy and Program Announcements, Climate Change/Global Warming/Food Security, Agricultural Situation, Grain and Feed

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**Report Highlights:**

Bangladesh consumes approximately 6 million metric tons of chemical fertilizers annually, of which about 80 percent are imported. The four major imported chemical fertilizers in Bangladesh are urea, triple super phosphate, diammonium phosphate, and muriate of potash (MOP). Russia and Belarus were the dominant suppliers of MOP in Bangladesh. Post sources indicate that the Russia-Ukraine war could result in a MOP supply shortage and higher domestic prices of fertilizer in the upcoming Boro/Rabi crop season in Bangladesh.

## Introduction

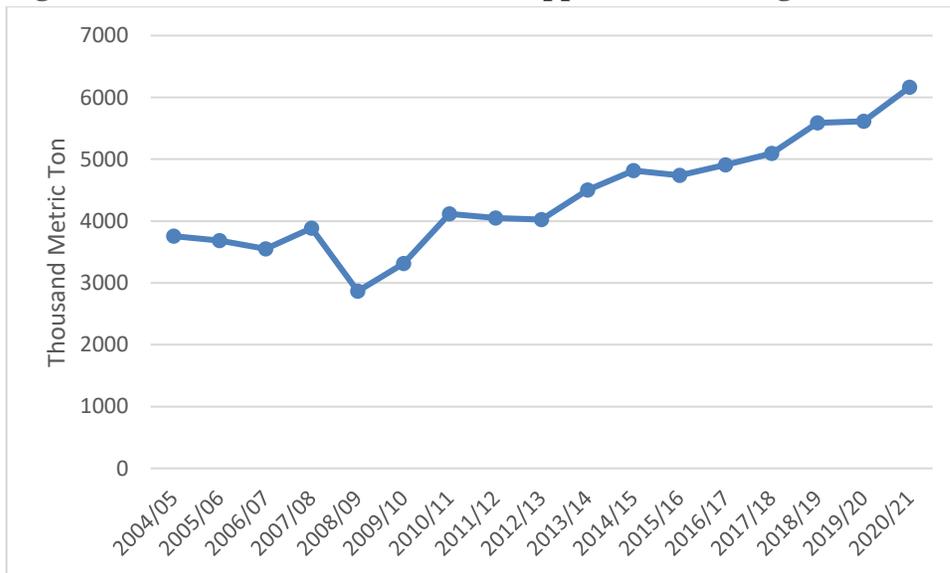
Crop yields are highly dependent on the timely and adequate application of chemical fertilizers. Bangladesh consumes approximately 6 million metric tons (MT) of chemical fertilizers annually. The most common chemical fertilizers are urea, triple super phosphate (TSP), diammonium phosphate (DAP), muriate of potash (MOP), gypsum, zinc sulphate, ammonium sulphate, and magnesium sulphate. The Government of Bangladesh (GoB) controls and regulates the supply and distribution of chemical fertilizers in Bangladesh and highly subsidizes urea, TSP, MOP, and DAP. In Bangladesh fiscal year (FY) 2021/22 (July to June), the GoB [increased its fertilizer subsidy by BDT 20 billion](#) (\$232.5 million) to a total of BDT 300 billion (\$3.49 billion).

## Uses and Doses of Fertilizers

There are three crop seasons in Bangladesh, *Aus*, *Aman*, and *Boro/Rabi*. Bangladeshi farmers use the majority of chemical fertilizers to produce rice in the *Aman* and *Boro* seasons, and potato, corn, and vegetables in the *Rabi* season. The *Aman* season starts in August and ends in November, while the *Boro/Rabi* season starts in December and ends in April. Bangladesh consumes more than 70 percent of its total chemical fertilizers during the *Boro/Rabi* season.

Total annual chemical fertilizer application has been increasing in Bangladesh (Figure 1). The Department of Agricultural Extension (DAE) has prescribed fertilizer doses for different crops; however, farmers generally do not follow the recommended doses. For example, they normally apply high doses of urea and lower doses of other fertilizers.

**Figure 1: Annual Chemical Fertilizer Application in Bangladesh**



Source: Bangladesh Bureau of Statistics

## Production, Import, and Consumption of Major Chemical Fertilizers

The chemical fertilizer market in Bangladesh is highly dependent on imports. The GoB imports chemical fertilizers through the Bangladesh Agricultural Development Corporation (BADC) and Bangladesh Chemical Industries Corporation. Some private companies also import fertilizers with prior government approval. Among the major chemical fertilizers, Bangladesh produces small quantities of urea, TSP, and DAP, while the GoB fully depends on imports of MOP from Russia, Belarus, and Canada (Table 1).

**Table 1: Production and Imports of Major Chemical Fertilizers in Bangladesh (000' MT)**

Year	Production				Import			
	Urea	TSP	DAP	MOP	Urea	TSP	DAP	MOP
2018/19	783	97	24	0	2045	584	803	793
2019/20	797	104	73	0	1699	566	813	789
2020/21	1034	91	102	0	1308	386	1426	686
2021/22*	798	71	102	0	1566	675	1630	903

Source: Ministry of Agriculture; DAE; BADC

\*Year-to-date

To-date in FY 2021/22, Bangladesh has consumed 5.7 million MT of all major chemical fertilizers (Table 2). For FY 2022/23, the GoB forecasts the consumption of urea at 2.6 million MT, TSP at 0.7 million MT, DAP at 1.5 million MT, and MOP at 0.75 million MT.

**Table 2: Consumption and Year End Stock of Major Chemical Fertilizers in Bangladesh (000' MT)**

Year	Consumption				Balance			
	Urea	TSP	DAP	MOP	Urea	TSP	DAP	MOP
2018/19	2594	781	763	724	9.95	2.27	2.8	2.71
2019/20	2509	691	962	716	9.81	2.1	2.1	3.45
2020/21	2463	522	1424	798	8.59	1.64	3.1	2.33
2021/22	2519	685	1638	832	7.04	2.25	4.04	3.04
2022/23 (Forecast)	2600	700	1500	750				

Source: Ministry of Agriculture; DAE; BADC

## Prices and Distribution of Major Chemical Fertilizers

The GoB provides subsidies for the four major chemical fertilizers to increase their affordability for farmers. Every year, the government fixes the retail prices of fertilizers and controls their distribution through fertilizer dealers throughout the country. The government-fixed retail prices of major chemical fertilizers for FY 2021/22 are shown in Table 3.

**Table 3: Prices of Major Chemical Fertilizers in Bangladesh, FY 2021/22**

Fertilizer	Price (BDT/Kg)
Urea	16 (\$0.19)
TSP	22 (\$0.26)
DAP	16 (\$0.19)
MOP	15 (\$0.17)

Source: Ministry of Agriculture

In February and March of 2022, farmers faced MOP supply shortages during *Boro* rice cultivation triggered by the Russia-Ukraine war. In April 2022, contacts observed that farmers had to pay about BDT 10 (\$0.11) per kilogram over the government-fixed rate to buy MOP from retailers, while the prices of other fertilizers were the same as the GoB-fixed rate.

## Impact of Ukraine-Russia War on Bangladesh Fertilizer

### *Supply Disruption and Shortage*

Bangladesh imports urea, TSP, and DAP from Saudi Arabia, China, Qatar, Morocco, and Tunisia and, as noted above, MOP from Belarus, Russia, and Canada. According to Trade Data Monitor, LLC, Bangladesh imports approximately 40 percent of its total MOP from Canada and the rest from Belarus and Russia. Bangladesh is not facing potential supply disruptions of urea, TSP, and DAP in FY 2022/23; however, Bangladesh is concerned about the procurement and supply of MOP from Belarus and Russia. As of April 30, 2022, Bangladesh has about 300 thousand MT of MOP in public stocks and requires an additional 450 thousand MT of imports for FY 2022/23. The Ministry of Agriculture is attempting to secure additional MOP from Canada.

### *Price Volatility*

The Russia-Ukraine war has exacerbated price hikes for all types of chemical fertilizers. The GoB has announced that it will allocate BDT 300 billion (\$3.49 billion) to subsidize fertilizers in FY 2022/23; however, due to higher international prices, the GoB will not be able to procure as much as planned. Contacts note there is a high possibility that the GoB will increase the retail prices of all chemical fertilizers in FY 2022/23.

### *Effects on Crop Production*

Supply shortages and high prices will likely reduce fertilizer application, particularly for MOP. Local soil scientists and agronomists opined that a 20 percent reduction in MOP application would result in a 15-20 percent yield reduction for potato, rice, and other grains. Sources indicate that Bangladesh may

suffer a severe MOP shortage in the *Boro/Rabi* season (November 2022 – March 2023), which could affect domestic production and food security.

**Attachments:**

No Attachments.