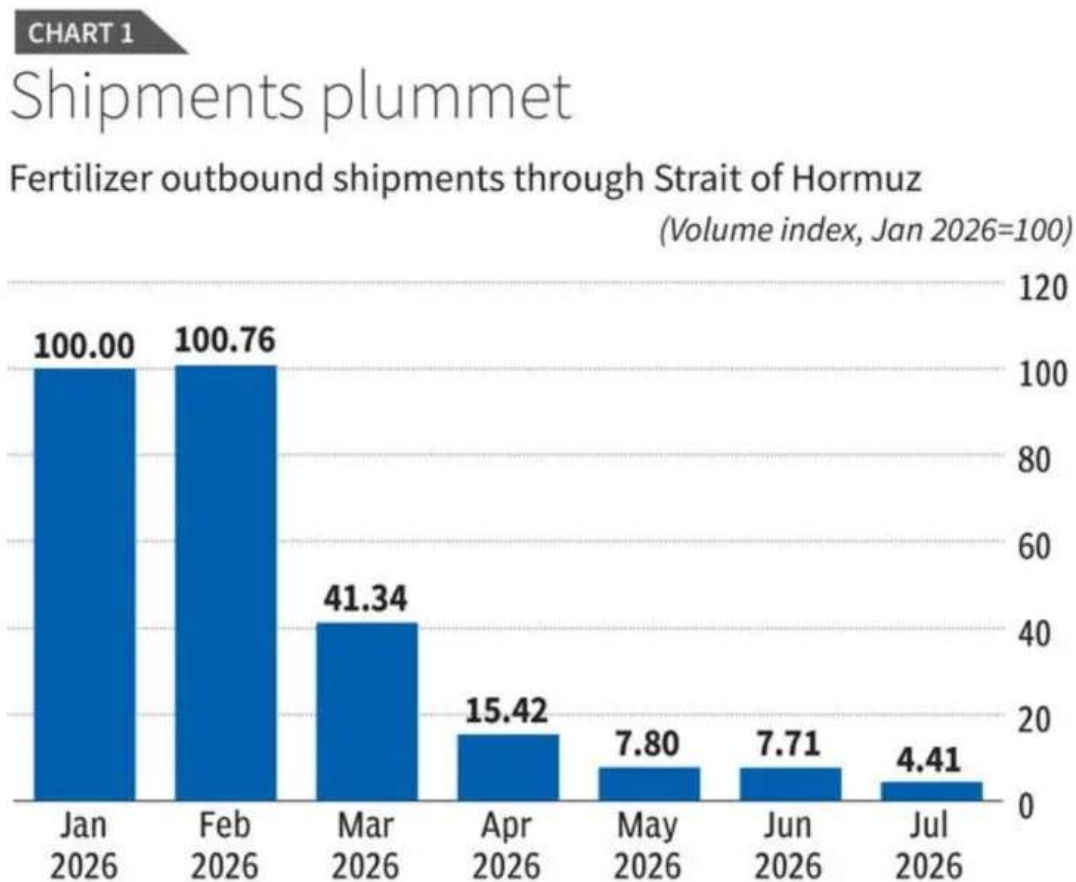


The Curious Case of Global Fertilizer Prices

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When the US and Israel launched the ongoing war on Iran, and Iran responded by effectively closing the Strait of Hormuz, concerns in the rest of the global economy focused on two major product categories: oil and gas; and nitrogenous and phosphatic fertilizers. Both matter greatly for farmers and agricultural production: high energy costs add to the costs of transport and irrigation for cultivators, while high fertilizer costs not only add to costs, but can also lead to lower crop yields if farmers reduce fertilizer application as a result.

Such concerns have increased over the past few months, as the Trump administration has been unable (despite all the bluster) either to reach an effective peace agreement with Iran or force a re-opening of the Strait. Figure 1 shows how the volume of fertilizer exports from the Gulf countries (including Iran) through that route has been affected: fertilizer freight volumes fell by more than 60 per cent in March compared to February, then collapsed even further in April, and continued falling thereafter. In July, average freight volumes were less than 5 per cent of those at the start of the year.



This is clearly bad news, but the impact is not uniform across the world: it depends on aggregate import dependence in different countries, and specifically their reliance on imports

from Gulf countries. Figure 2 identifies the countries heavily dependent on nitrogenous fertilizer imports from the Gulf. The WTO has identified 18 economies that are particularly exposed, because they combine high import dependence with strong reliance on Gulf suppliers. This group includes countries in Africa like Kenya, Malawi, Mozambique, Rwanda, South Africa, Tanzania, Uganda and Zimbabwe; as well as Brazil, Nepal and Sri Lanka.



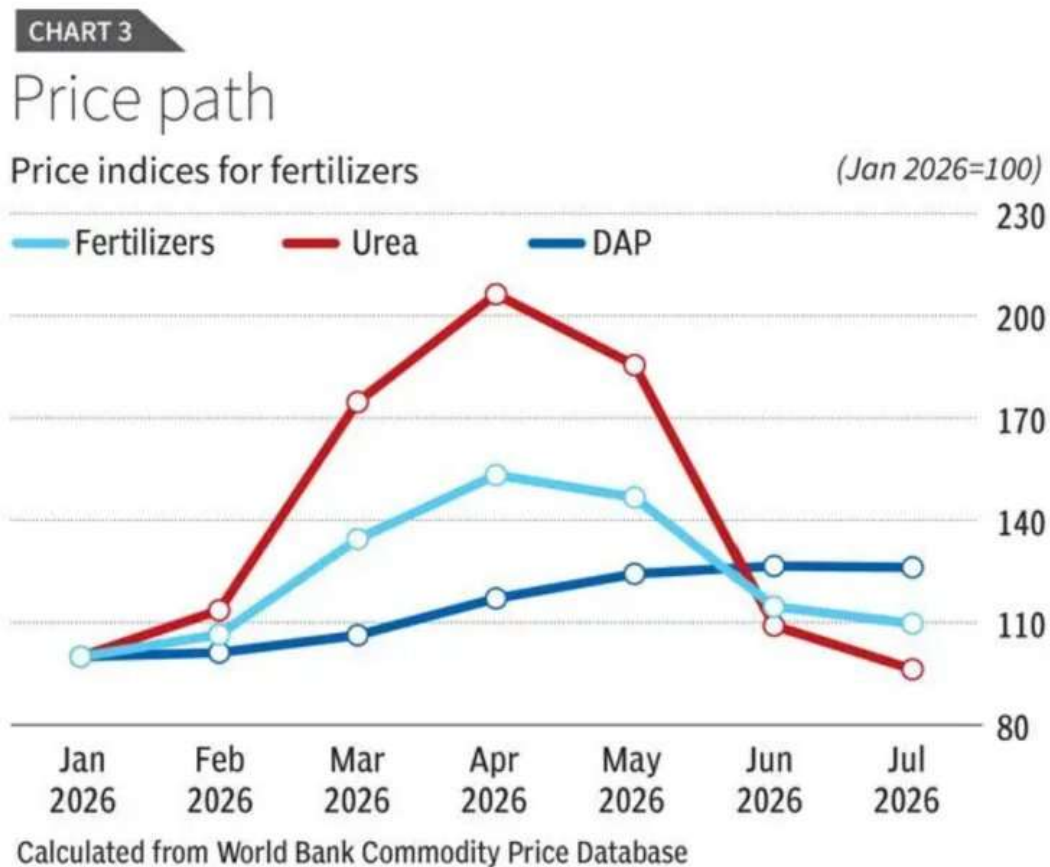
Smaller Impact

However, two relatively unexpected developments have marked the past few months. First, the impacts on fertilizer usage and therefore likely crop yields for the current sowing season is likely to be much less dire than was widely projected. Why is this the case? A study by the Agricultural Marketing Information Service (AMIS) of the FAO has noted that planting decisions and fertilizer purchases for the current production cycle had for the most part already been made before the price increases from late February onwards. This meant that in most countries, supplies of fertilizer for the current sowing season were already in place or had been procured.

Several countries also moved to mitigate the impact on cultivators in various ways. In India, which offers a subsidized price to farmers, the estimated fertilizer subsidy is expected to double in the current fiscal year, from the budgeted ₹1.71 lakh crore to around ₹3.4 lakh crore. As a result, significant impacts on the current season's production are less likely, which

is clearly good news. However, the adverse weather events associated with the super El Nino and other climate-related changes could still impact crop yields.

The second surprise is that global fertilizer prices themselves have moved differently from what was expected. While they increased sharply until April, they actually declined thereafter, even though Gulf supplies became even more restricted over time (Figure 3). The case of urea is particularly sharp: by April, the price had more than doubled over its January level, but by July it had fallen to the point that it was even lower than it had been in January.



Such price volatility with the decline in fertilizer prices flying in the face of supply shortages clearly requires further examination. Two factors, in particular, deserve to be probed, although we cannot delve more deeply into these here. The first is the role of futures markets in amplifying the volatility, in much the same way that they have operated in agricultural commodity markets. Indeed, there is evidence that futures market prices for urea moved even more drastically and were more volatile over the period than spot prices, and may even have led the pattern in spot prices.

Food Security

The other factor may be a more worrying one: a decline in demand. There is a real possibility of reduced fertilizer application, particularly for nutrient-intensive crops. For example, there are already reports of maize, wheat and other foodgrains with high fertilizer needs being substituted for soyabeans that require less of such nutrients. This is a concern because

soyabean is not a substitute for foodgrain in the consumption basket, and declining supply can lead to food insecurity.

In addition, there could simply be lower application of fertilizer over time, beyond the current season, which would affect all crop yields. For overall nutrition, there is another concern emanating from the Strait of Hormuz closure: higher energy prices have also increased demand for biofuels, raising feedstock prices and therefore affecting the supply of livestock and meat products.

The behaviour of fertilizer prices in individual countries reflects domestic policy decisions as well, and this is clear from the case of the US, where the fall in producer prices of fertilizer after April has been much smaller than the global price decline (Figure 4). This could reflect both less public intervention and greater concentration in the fertilizer industry in the US. Since the US is a “large economy” in the trade sense of being able to influence global prices, this unfortunately matters for the rest of the world as well.

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All this suggests that the real problems for global cultivation and food security that have been created by the Hormuz closure are yet to fully play out. The concerns remain and are likely to intensify in the near future. Higher fertilizer prices will influence farmers’ choices about fertilizer use and cropping patterns; these will impact crop yields and food supply; agricultural prices will also be affected by rising cultivation and transport costs because of the rise in fuel prices.

For low and middle income countries, the necessary policy response is evident: it is essential to shift away from an import-dependent, heavily globalized agricultural system to one that emphasizes regional production, supply chain resilience and self-sufficiency.

* This article was originally published in The Business line on August 18, 2026.