Crisis of rising fertiliser prices

BY **ARIS RIZA NOOR BAHARIN**

The disruption of oil and gas supplies following the closure of the Strait of Hormuz amid the US-Iran war has exposed a key weakness in the modern agricultural system.

Most raw materials for synthetic fertilisers pass through this trade route, and its disruption has driven up prices for both fertilisers and agricultural produce. If sustained, these increases could also lead to food shortages.

Nitrogen-based urea is one of the most used synthetic fertilisers for global food production, and most of this supply comes through the Middle East. Natural gas is the primary feedstock and energy source to produce this type of urea. Several natural gas production facilities have been destroyed in the war.

According to a Maybank Investment Bank report titled *Asean economics — Gulf war: Assessing the fallout*, Gulf countries account for 49% of global urea exports and 30% of ammonia, and produce around 20% of phosphate fertilisers and 45% of sulphur exports — all key commodities used in agriculture.

"The global food system is based on a single source of petroleum-derived natural gas. If you squeeze that source, you're talking about not just [a threat to] food security, but the entire world's food dependency," says Reza Azmi, founder and executive director of Wild Asia, a Malaysian non-profit organisation that promotes sustainable plantation development.

The US-Iran war has sent urea prices surging 83% (as at March 31) to US$717.74 per tonne, according to CARI Asean Research and Advocacy.

In Malaysia, this spike has translated into two compounding pressures: cost inflation on imported inputs and supply uncertainty from key suppliers. According to the Maybank report, 27% of Malaysia's urea fertilisers are imported from the Gulf countries. In April, some farmers' associations have called for government intervention over rising fertiliser and diesel costs.

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"Russia and China, which together comprised 53% of Malaysia's fertiliser imports in 2025, have recently suspended exports to prioritise domestic supply, removing Malaysia's most accessible alternative sources simultaneously," says Namit Goel, co-founder and managing partner of Indian business analytics company Ken Research.

While Malaysia does have domestic fertiliser production capacity from firms such as FGV Fertiliser and Union Harvest, Namit notes that local producers have halted new orders, as raw material prices in Sabah have reportedly risen 100% to 150% within just two weeks.

Rising prices not only lead to an increase in production costs for farmers but also pose direct risks to the country's local food supply.

"For rice and vegetable farmers, who operate on thinner margins and with less access to credit [compared to their larger, palm oil counterparts], a prolonged fertiliser shortage is not an abstract risk," says Namit.

"Malaysia's food self-sufficiency ratio for rice is already below 70%. Reduced fertiliser application in paddy farming would erode yields and increase dependence on imports at a time when global food prices are also rising."

PALM OIL VERSUS FOOD SECURITY

As fertiliser costs rise, analysts are asking which agricultural sector would be favoured: palm oil or food crops?

Oil palm is Malaysia's dominant agricultural commodity, contributing more than any other agricultural products to the country's GDP. In addition, fertilisers alone account for more than half of production costs for oil palm planters.

"When supply is constrained, allocation decisions — whether explicitly or through a price mechanism — will favour the higher-value commodity. The Malaysian government has not clarified whether it will prioritise fertilisers for palm oil or food crops, which itself is a signal of the difficulty of that choice politically," says Namit.

Large plantation groups with longer supply contracts and more working capital are better positioned to absorb the near-term shock. Meanwhile, smaller plantations for both oil palm and food crops are the most exposed, having less ability to pre-purchase or stockpile fertiliser at inflated prices.

The effects are uneven across the region as well. According to BMI's research paper titled *US-Iran conflict: Fertiliser driven risks diverge across Southeast Asia*, while Indonesia, Malaysia and Vietnam are the most insulated from nitrogenous fertiliser shortages because of domestic production capacity and natural gas access, some neighbouring nations are more vulnerable. The Philippines, for example, is fundamentally exposed, with a significant reliance on fertiliser imports.

To overcome the rising price of synthetic fertilisers, Namit says, Malaysia is looking into sourcing fertiliser alternatives.

"Investment in organic and biofertiliser alternatives has been progressing at a policy level. The Malaysian government has encouraged green fertiliser adoption, particularly in the paddy sector, but these remain a marginal share of total application volumes," he says.

Unfortunately, there is no near-term substitute at the scale required for oil palm and food crop cultivation, he adds.

Fatimah Mohamed Arshad, researcher at the laboratory of agricultural and food policy studies at Universiti Putra Malaysia, agrees.

"Malaysia has no specific policy to ensure fertiliser security to protect local food production from supply disruption from the world market," says Fatimah.

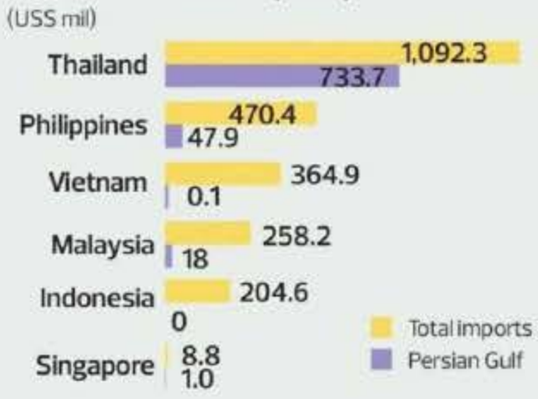
Instead, the government supports farmers through targeted subsidies, distribution schemes and regulatory oversight, aiming to help agriculture players manage costs and maintain production.

She adds that, in view of this crisis, the government is moving to improve market mechanisms to strengthen fertiliser supply and build stronger regulatory frameworks, such as providing more subsidies to paddy farmers through the Skim Baja Padi Kerajaan Persekutuan. E

Thailand and Philippines are most dependent on Gulf nitrogen fertilisers

Asean nitrogen fertiliser imports from Persian Gulf countries (2024)

(US$ mil)



Note: Nitrogen products refer to HS3102

Particularly in urea fertiliser, 74% of Thailand's and 14% of the Philippines' urea are imported from Gulf countries

Share of Asean countries' urea imports from Persian Gulf countries (2024)

(%)

Note: Urea products refer to HS310210

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