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Jose Ma Luis Montesclaros, Kayven Tan and Mely Caballero-Anthony

RSIS S. RAJARATNAM SCHOOL OF INTERNATIONAL STUDIES
Nanyang Technological University, Singapore

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SYNOPSIS

The Middle East conflict is set to have a double-whammy impact on both ASEAN's import of fertilisers, and its energy-intensive fertiliser production. The timing is critical as in the coming months, the five major crops, including rice, are being planted in ASEAN.

COMMENTARY

The Middle East accounts for approximately 19 per cent of global exports of liquefied natural gas (LNG), 29 per cent of liquefied petroleum gas (LPG) exports, 38 per cent of crude oil exports, and 19 per cent of exports of refined oil products. Moreover, one-third of global seaborne trade in fertilisers passes through the Hormuz Strait, making it a critical route for both energy and fertiliser exports from the region.

The ongoing war on Iran exposes Southeast Asia to a double-whammy of disruptions to fertiliser supplies and rising fertiliser production costs, both of which threaten ASEAN's food security resilience.

First Wave Impact: Trade Disruption for Southeast Asia Fertiliser Importers

The first wave impacts will likely come in the form of disruptions of access to imported fertilisers, given that ASEAN depends on extra-regional sources for 82 per cent of its fertiliser imports. The risk is that fertiliser prices could increase due to the higher costs and uncertain availability of imported fertilisers, and ASEAN farmers could pass on these costs to consumers through higher food prices.

Several Asian countries are heavily dependent on the Middle East for fertiliser imports, especially Thailand and India where 71 per cent and 41 per cent of urea

fertiliser imports are drawn from the Middle East. Urea is the most widely used fertiliser globally. For Southeast Asia as a whole, more than 11 per cent of its fertiliser imports are from Saudi Arabia, Oman, Jordan, Qatar, Egypt and Bahrain, totalling US$1.1 billion.

Cambodia and Myanmar are most vulnerable to the first wave (fertiliser trade) disruption as they are completely dependent on fertiliser imports, with negligible domestic production. Following these will be countries with limited domestic production capacity that falls well short of annual requirements. These include Malaysia, Thailand and the Philippines where domestic fertiliser production can only meet 39 per cent, 24 per cent and 22 per cent of each country's annual fertiliser use.

Second Wave Impact: Fertiliser Production Costs Amid Energy-Fertiliser Nexus

ASEAN countries with surplus fertiliser production capacity will be more resilient to the first wave (fertiliser trade disruption), especially Laos, Brunei, and to a smaller extent, Singapore. However, these countries are still vulnerable to the second wave impact: of an LNG trade disruption impacting ASEAN fertiliser producers.

While LNG is more popularly known for its fuel uses, it is also a critical input in producing nitrogen fertilisers such as urea, thus posing an "energy-fertiliser" nexus. This nexus can be observed in Qatar's experience, as the 2nd largest producer of LNG, supplying 20 per cent of global LNG exports and 14 per cent of global urea. Qatar was forced to halt production in its major fertiliser facilities and declared a force majeure after Qatar's LNG plants were attacked by Iran's drones.

Since approximately 83 per cent of the Middle East's total LNG exports were initially bound for Asia, ASEAN fertiliser producers are thus similarly vulnerable to the second wave disruption. All fertiliser producing countries, even those not sourcing from the Middle East, are vulnerable to the second wave disruption as they face greater import competition and higher import costs.

The second wave is most relevant to Indonesia and Vietnam where 82 to 83 per cent of fertiliser consumption is drawn from domestic production. The food security risk is that ASEAN fertiliser producers could reduce production, or raise prices and pass these on to farmers.

Critical Timing for ASEAN Farmers: Vulnerabilities in Crop Production

A third vulnerability to ASEAN owes to the timing of the Middle East conflict. The impacts of both the first wave (fertiliser import disruption), and second wave (LNG-fertiliser production disruption), are amplified by the timing of disruption, since crops have very limited windows for planting, grow-out and harvesting within a year.

To assess ASEAN's vulnerability, International Fertiliser Association data was compiled on the key fertiliser application periods in countries where data was available (Indonesia, Myanmar, the Philippines, Thailand and Vietnam), for ASEAN's five key crops (rice, maize, soybeans, sugarcane and cassava). March is a critical period for the rice sector as fertiliser is being applied across all these countries. The

other vulnerable crops are maize (Indonesia, Philippines, Vietnam), soybeans (Indonesia, Vietnam), and sugarcane (Philippines, Thailand).

Should the conflict extend to April, the vulnerable crops where fertilisers are being applied include rice (Indonesia, Thailand, Vietnam and Myanmar), maize (Indonesia, Philippines, Thailand), soybeans (Indonesia, Vietnam), sugarcane (Philippines), and cassava (Thailand). For all these countries, fertiliser disruptions (first wave) can reduce overall yields while higher fertiliser prices from LNG supply disruptions (second wave) may also prompt farmers to reduce application rates to cut losses.

Imperatives in Transforming Regional Supply Chain Resilience Approaches

The Middle East conflict carries implications for Southeast Asian policymakers in strengthening resilience during current international tensions, and calls for transformations building on existing regional food resilience mechanisms.

Firstly, to reduce vulnerability to the first wave of fertiliser supply disruptions, ASEAN could build on the ASEAN Plus Three Emergency Rice Reserve mechanism, and explore coordinating regional fertiliser stockpiles.

Secondly, while there is an ASEAN Plus Three Food Security Information System (AFSIS), its data gathering only focuses on crops; this should expand to include fertilisers too. So far, only Thailand's Commerce Ministry has been able to announce having sufficient fertiliser stockpiles for 5 months of planting, while other ASEAN countries have yet to publish their fertiliser stockpiles.

Thirdly, to mitigate the second wave impact on fertiliser producers, ASEAN traders will need to diversify their LNG sources. Thai traders are more exposed given their high reliance on Qatar for 71 per cent of LNG imports, and these traders can turn to Australia and the US, which are the other key LNG exporters. Within the region, Malaysia and Indonesia are likewise key LNG exporters.

Fourthly, beyond trade diversification, ASEAN should consider "regionalising" its agri-food supply chains by expanding regional production and trade of both fertilisers and LNG. Member States could invest in developing the region's fertiliser industries, as part of a broader agricultural production base. This aligns with the 2023 ASEAN Declaration on Strengthening Food Security and Nutrition in Response to Crises, which envisioned a Local Resource-Based Regional Food Reserve (LRBFR) covering not just rice, but other staples and farming inputs including fertilisers.

Finally, governments should assess their capacity to provide financial aid to consumers facing rising costs, as well as targeted support to farmers and fertiliser producers to offset the higher costs of imported inputs. Together, these five strategies form an integrated approach in reducing ASEAN's vulnerability amid the escalating Middle East conflict. These will require stronger national governance of agri-food supply chains and a firm commitment to prioritising the basic needs of people across the region.

Jose Ma. Luis Montesclaros is a Research Fellow and the Food Security (FS) Lead at the Centre for Non-Traditional Security Studies (NTS Centre), S. Rajaratnam School

of International Studies (RSIS), Nanyang Technological University (NTU), Singapore. Kayven Tan is a Senior Analyst with the NTS Centre's FS team. Mely Caballero-Anthony is Professor of International Relations and Head of the NTS Centre at RSIS.

S. Rajaratnam School of International Studies, NTU Singapore
Block S4, Level B3, 50 Nanyang Avenue, Singapore 639798

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