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The Hormuz blockade and fertilizers: conflict today and hunger tomorrow?

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Abtracts:

The disruption of traffic through the Strait of Hormuz not only interrupts the energy trade in oil and gas, but also that of other products and raw materials such as helium—essential for the technology sector—and fertilizers, the cornerstone of modern agriculture and necessary to guarantee food security for the world's population.

We are facing a cascading effect that is straining an agricultural system that emerged with the Green Revolution of the 1950s and 60s. This revolution made it possible to increase crop production—and thus feed millions of people—through the introduction of fertilizers, pesticides, and the mechanisation of farm work. One of the consequences of that revolution is that agricultural production became inextricably linked to the use of fossil fuels. The food crises of recent years highlight the tense relationship between food production, pesticides and fossil fuels.

Keywords:

Fertilizers, Strait of Hormuz, food security, agriculture.

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Introduction

The conflict in Iran has once again highlighted the vulnerabilities of the global trading system. The COVID-19 pandemic, the conflict in Ukraine and the trade rivalry between the US and China have shown that the economy can no longer be viewed in isolation from geopolitics.

This means that security of supply has acquired economic value, because customers are seeking certainty, not just the product[1] .

The current situation is marked by extreme volatility and the complexity of global markets. Companies are forced to seek resilience in a world where supply chains have become a tool of power for states; control over the flow of raw materials and manufactured goods can be a means of coercing adversaries[2] . The result is increasingly unpredictable trade.

The geography of the Persian Gulf offered advantages in maritime supply chains for energy and fertilizers, connecting the world's largest suppliers with the world's major agricultural economies, such as India, Brazil and Southeast Asia. However, the paralysis of transit through the Strait of Hormuz has led to an effective embargo on the entire Gulf export economy.

This impact affects not only the energy trade in oil and gas, but also that of other products and raw materials, such as helium—which is essential to the technology sector—and fertilizers, which are necessary to ensure food security for millions of people. Approximately 27% of global oil exports[3] , 20% of global liquefied natural gas (LNG) exports[4] and between 20% and 30% of global fertilizer exports[5] , including urea, ammonia, phosphates and sulphur, pass through this narrow[6] .

By January 2026, before the outbreak of the conflict in Iran, the fertilizer markets had already entered a phase in which logistical and geopolitical risks outweighed those arising from short-term fluctuations in demand. A shortage of berths, prolonged waiting times at

[1] https://empresaexterior.com/art/101879/The-WTO-sees-the-Cameroon-ministerial-conference-as-a-turning-point-for-its-comprehensive-reform
Note: All hyperlinks in this article will be active as of 28 April 2026.
[2] QUITZOW, R. *et al*. *The nexus of geopolitics, decarbonisation and food security gives rise to distinct challenges across fertilizer supply chains*. One Earth, Volume 8, Issue 1, 2025.
[3] https://www.eia.gov/international/analysis/special-topics/World_Oil_Transit_Chokepoints
[4] https://www.eia.gov/todayinenergy/detail.php?id=65584
[5] https://www.argusmedia.com/en/news-and-insights/latest-market-news/2702237-potential-hormuz-closure-threatens-ferts-sulphur-trade
[6] https://www.ifpri.org/blog/the-iran-war-potential-food-security-impacts/

anchorages and competition with shipments of iron ore, sulphur and steel had reduced the elasticity of the fertilizer supply[7] .

The main consequence has been a rise in prices due to the system's inability to deliver the product quickly, highlighting the importance of logistics and transport strategy[8] . Furthermore, insurance premiums are between ten and thirty times higher than at the start of the crisis, adding further difficulties to the export of fertilizers through the Strait of Hormuz[9] .

The geopolitical tension in the Middle East is keeping the global agricultural sector on tenterhooks by paralysing trade in key nutrients used in its production. Compounding the inability to export fertilizers and raw materials by sea is the destruction of infrastructure necessary for their production, as evidenced by the attack on the industrial city of Ras Laffan in Qatar, which has brought production of liquefied natural gas (LNG) and other products to a standstill[10] .

Even if LNG shipments from Qatar resume following the reopening of the Strait of Hormuz, the country's export capacity will be reduced by 15% over the coming years due to the severe damage caused to its energy infrastructure by Iranian attacks. In the wake of these attacks, countries such as the United Arab Emirates, Saudi Arabia, Iran and Jordan have reduced or suspended fertilizer production[11] .

Added to this damage are market effects, as it is more profitable for ports in the Persian Gulf region—should maritime traffic resume—to prioritise the export of oil and gas over that of agricultural products.

We are therefore facing a knock-on effect that is putting pressure on an agricultural system that emerged with the Green Revolution of the 1950s and 1960s, thanks to which crop production was increased—and, with it, billions of people were fed—through the introduction of fertilizers, pesticides and the mechanisation of farm work.

[7] https://www.greengubregroup.com/Market-Reports/2026-January
[8] Ibid.
[9] https://observatorial.com/news/world/1696474/from-10-to-30-times-more-expensive-than-before-the-war-insurance-premiums-for-maritime-traffic-are-soaring-in-hormuz/
[10] https://www.qatarenergy.qa/en/MediaCenter/Pages/newsdetails.aspx?ItemId=3897#:~:text=Minister%20Saad%20Sherida%20Al%2DKaabi,Industrial%20City%2C%20His%20Excellency%20Mr
[11] https://www.france24.com/en/live-news/20260410-war-s-impact-on-fertilizers-stirs-food-producer-fears

One of the consequences of this revolution is that agricultural production became inextricably linked to the use of fossil fuels. The food crises of recent years, and in particular the disruption of trade in the Strait of Hormuz, highlight the tense relationship between fossil fuels, fertilizers and food production.

Fertilizer exporters and importers in the Persian Gulf

Fertilizers and other agricultural inputs are essential to global food systems. Disruptions to their production or distribution can quickly have repercussions on the wider economy.

The halt in exports and high energy prices caused by the conflict in Iran threaten to trigger an agricultural crisis, the consequences of which will be felt in every country in the short term and with far greater severity in the medium term, even if the conflict were to end in the coming days.

The world's population is expected to increase by approximately 35% over the next forty years. To meet the food needs of this growing population, agricultural production will have to increase significantly.

Furthermore, it is anticipated that most of the increase in agricultural production will come from intensifying cultivation on existing farmland, which will require more fertilizers.

Inorganic fertilizers based on nitrogen (N), phosphorus (P) and potassium (K) offer an effective way of providing additional nutrients to the soil to increase crop yields, as soil nutrient levels decline over time. Some studies carried out in the United States indicate that between 40% and 60% of agricultural yield can be attributed to the use of inorganic fertilizers[12] .

For this reason, and in response to both the need to feed the growing world population and to achieve greater economic returns in the agricultural sector, fertilizer consumption has increased more than sixfold, rising from 31 megatonnes in 1961 to 195 megatonnes in 2021.

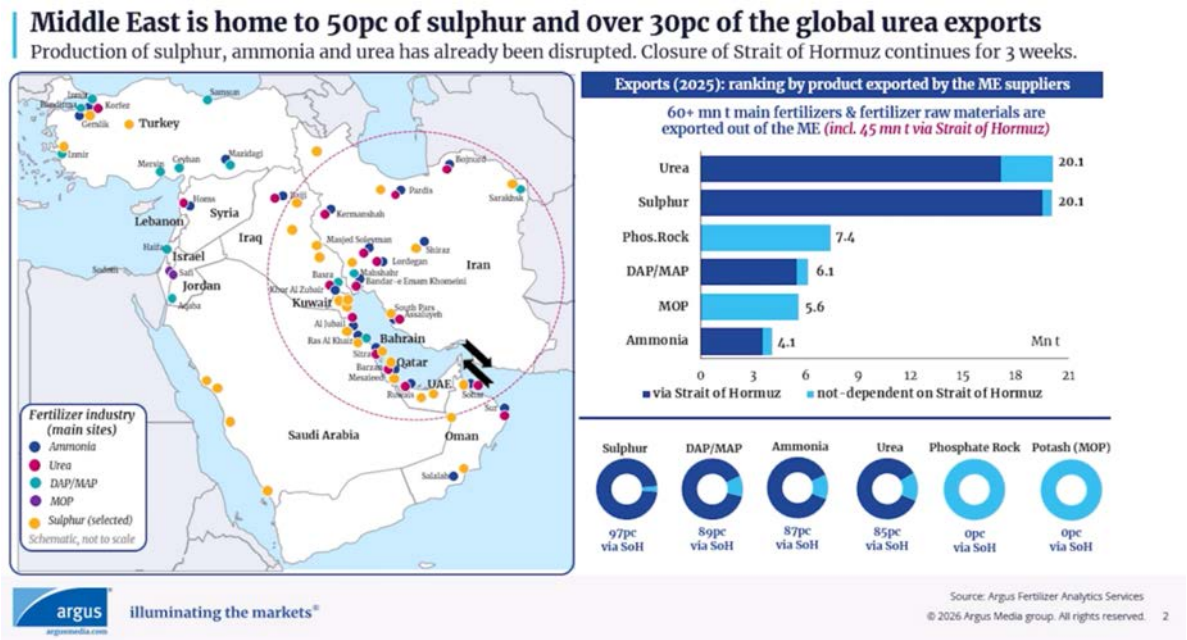
[12] IFA. Fertilizer Consumption – Historical Trends by Country or Region (IFASTAT). 2023. https://www.ifastat.org/databases/graph/1_1

Of this increase, 60% corresponds to nitrogen (N) fertilizers, whilst phosphate (P) and potash (K) fertilizers each account for one-fifth of total use[13] .

Although Russia is the world's largest supplier of fertilizers, with exports totalling 45 million tonnes in 2025[14] , the Middle East also plays a key role in the global trade in these agricultural inputs.

In 2024, Iran, Qatar, Saudi Arabia, the United Arab Emirates and Bahrain together accounted for 23% of global ammonia trade, 34% of global urea trade and 18% of global trade in ammonium phosphates (MAP and DAP)[15] .

The fertilizer market offered an encouraging outlook for the Gulf countries, with prospects for significant investment. Indeed, the Saudi state-owned mining company Maaden is undertaking one of the world's largest phosphate production expansions, aiming to reach nine million tonnes of annual capacity by 2027[16] .



Source: Argus Fertilizer Service

[13] Ibid.
[14] https://www.euronews.com/2026/03/20/europes-fertilizer-crisis-prices-surge-due-to-iran-war-and-dependence-on-russia
[15] https://www.fertilizer.org/news/protect-fertilizer-supply-chains-to-safeguard-global-food-security/
[16] https://www.maaden.com/discover-us/core-business-units/phosphate

However, the region is not only important for fertilizer production, but also for the raw materials needed to manufacture them in other parts of the world. The Gulf region also produces sulphur as a by-product of hydrocarbon processing, which is required, in the form of sulphuric acid, for phosphate processing.

Sulphur has no substitutes in fertilizer production, as sulphuric acid is used to convert phosphate rock into ammonium phosphates (MAP and DAP). Morocco's state-owned mining company, the Office Chérifien des Phosphates (OCP), is the world's largest producer of phosphate, holding approximately 70% of global reserves, and is geographically distant from the war with Iran.

However, it imports approximately 3.7 million metric tonnes of sulphur per year from the Persian Gulf[17] . Without this input, OCP cannot process the rock to convert it into a usable product on a large scale.

China, a major exporter of phosphates—which had already imposed export restrictions on DAP and MAP before the war—is facing a similar shortage of inputs needed for fertilizer production, such as sulphur. The escalating conflict in the Middle East is having a direct impact on China's access to sulphur — a key raw material for fertilizer production — just as the country enters its critical spring sowing season. China relies on imports for 47% of its sulphur supply. More than half of these imports come from six Persian Gulf countries[18] . To avoid the damage caused by the disruption to the sulphur supply, China has just announced restrictions on sulphuric acid exports[19] .

As a result, the global availability of phosphate-based fertilizers is facing constraints, as three of the world's five leading producers—Saudi Arabia, China and Morocco—will reduce their production and export capacity for three distinct reasons: physical blockades, the imposition of export controls and shortages of raw materials, such as sulphur, respectively.

[17] NDSU AGRICULTURAL TRADE MONITOR. "Strait of Hormuz Closure Threatens Morocco's Fertilizer Production, Exports", *Morocco World News*. 17 March 2026.
[18] https://www.scmp.com/economy/china-economy/article/3345761/iran-war-hits-chinas-sulphur-imports-economic-fallout-conflict-grows
[19] https://news.chemnet.com/news-4326.html

As regards nitrogen fertilizers, the production of ammonia via the Haber-Bosch process requires gas not only as an energy source but also as a raw material. Globally, over 70% of ammonia is synthesised from natural gas.

Subsequently, although ammonia can be used directly as a fertilizer, it is usually converted into other products, such as urea, ammonium nitrate (AN) or calcium ammonium nitrate (CAN)[20] .

The conflict in Iran and the disruption to maritime transport through the Strait of Hormuz are affecting the global availability of nitrogen fertilizers in two ways. On the one hand, attacks on energy infrastructure in the Persian Gulf, such as the one suffered by the QatarEnergy LNG plant in Ras Laffan, mentioned above, could reduce the global supply of urea by approximately 14%[21] .

Furthermore, rising gas prices are driving up the cost of ammonia production, to the extent that some facilities are even considering closure due to low profitability, as between 60% and 70% of manufacturing costs are attributed to natural gas[22] .

As for fertilizer-importing countries dependent on the Persian Gulf, such as India, Brazil and West Africa, they risk facing shortages if the disruptions persist. India faces a reduction of between 20% and 25% in its fertilizer supply chain, alongside significant cuts in LNG, which may lead to closures of companies in the sector. IFFCO, a major Indian fertilizer producer, is likely to suspend operations or reduce production due to a cut in LNG supply of up to 40%. This also threatens the rice and maize planting season in India, which begins between June and July[23] .

Brazil relies heavily on Gulf-sourced urea for approximately 40% of its nitrogen requirements. A prolonged conflict is likely to affect fertilizer deliveries ahead of the 2026–27 agricultural cycle, for which sowing normally begins in September. Soybean and maize yields are at risk if disruptions continue.

West African nations rely heavily on imported fertilizers, particularly urea and phosphates, as African production is concentrated in just a few countries, such as

[20] https://www.plataformatierra.es/mercados/mercado-mundial-fertilizantes-2026-geopolitica
[21] https://www.gulf-times.com/article/723114/business/iran-war-threatens-global-food-security-as-qatars-fertilizer-plant-goes-offline
[22] https://ieaghg.org/insights/low-carbon-ammonia-roadmap-2023-03/#:~:text=However%2C%20this%20cost%20is%20significantly,potentially%20bring%20these%20costs%20down
[23] Iran War Disrupts Global Agriculture by Delaying Key Chemicals

Algeria, Egypt and Morocco. This region faces severe supply bottlenecks due to high shipping costs, which have risen by between 25% and 30%, rising fertilizer prices and potential natural gas shortages[24] .

In the case of Spain, dependence on fertilizer exports passing through the Strait of Hormuz is lower than in other European countries. Spain imports mainly from Algeria and Egypt, and also has domestic production[25] .

The need for structural change in the fertilizer market

The global trading system is experiencing the worst disruptions in the last eighty years. We are undergoing three overlapping structural transitions: energy systems under geopolitical pressure, food systems under climate and water pressure, and the patience of capital markets, which is also under pressure[26] .

Products that were once mere raw materials are now treated as strategic assets. As with other markets, the paralysis of maritime traffic through the Strait of Hormuz will mark a turning point in the management of global trade in general and, in particular, in the fertilizer trade.

For the Global North, this will entail varying degrees of stagflation, a cost-of-living crisis and rising inequality. For the Global South, it will mean food insecurity, as well as an impending debt crisis and growing instability. The severity of these effects will depend on the duration of the war and the resulting disruption and destruction of supply chains.

We are therefore facing a potential food crisis far more complex than that caused by the war between Ukraine and Russia, both of which are also exporters of grain and fertilizers. Firstly, it is difficult to find alternative routes to circumvent the blockade of the strait.

In the case of Ukraine, alternative land routes were quickly established to replace maritime exports via the Black Sea, something that is not feasible in the Persian Gulf. The corridors through Turkey and Pakistan represent a possible option for transporting

[24] https://www.industrialinfo.com/news/article/iran-war-upends-global-agriculture-by-delaying-key-chemicals--354883
[25] https://www.agrodiario.com/articulo/fitosanitarios-biotecnologia-fertilizantes-semillas-y-piensos/espana-esquiva-ruta-fertilizantes-estrecho-ormuz-alza-precio/20260406060205069732.html
[26] https://www.fertilizer.org/news/the-growth-paradox-of-2026-why-resilience-is-now-a-revenue-strategy/#:~:text=Energy%20systems%20under%20geopolitical%20stress,Capital%20markets%20under%20patience%20stress

fertilizers by land from the Middle East, but for this to be feasible, it is first necessary to ensure that the plants producing fertilizers and their raw materials, as well as the energy infrastructure, are not attacked or rendered inoperable.

Secondly, the products blocked in the Gulf are not only finished fertilizers, but also raw materials at the start of the value chain, such as sulphur, which could bring fertilizer production in other parts of the world to a standstill.

Thirdly, trade restrictions have become a geopolitical tactical tool, particularly in the field of strategic minerals and technology, used mainly in the rivalry between the US and China. The blockade of the strait adds another layer of pressure, forcing countries not only to restrict food trade to ensure their populations' food security, but also to begin restricting basic raw materials for fertilizer production.

Finally, whilst an agreement was reached at the start of the war in Ukraine to export Russian and Ukrainian grain and fertilizers via the Black Sea, on this occasion, the possibility of establishing a trade corridor in the Strait of Hormuz, as proposed by the UN, may not prove viable, given the significant threats currently posed by this maritime route, both due to the presence of mines and the possibility of attacks on ships[27] .

In the energy sector, the conflict in Iran has accelerated the drive towards the energy transition, particularly in the automotive sector. Both Tesla and BYD have seen a significant increase in sales in Europe[28] .

Whilst the war in Ukraine has prompted the EU to accelerate the energy transition, the fact remains that the lack of affordable natural gas has impacted Europe's industrial base, including sectors such as fertilizers—particularly nitrogen-based fertilizers—as the price of natural gas accounts for a significant proportion of the costs involved in producing ammonia.

The option of producing ammonia using green hydrogen — also known as e-ammonia — instead of natural gas is gaining momentum, although investors still lack the necessary incentives and regulatory stability. This alternative could not only significantly reduce

[27] https://www.france24.com/es/medio-oriente/20260422-por-qu%C3%A9-no-avanza-el-plan-de-la-onu-para-garantizar-el-paso-de-fertilizantes-por-ormuz
[28] https://www.semafor.com/article/04/23/2026/evs-solar-benefit-from-energy-supply-crunch

greenhouse emissions associated with ammonia production, but could also attract new producers.

Generally speaking, the costs of e-ammonia remain higher, but recent tenders in India have shown prices close to those of conventional ammonia[29] . Furthermore, purchase agreements are emerging in the market this year, such as the one reached between Uniper and AM Green for the supply of e-ammonia produced in India and exported to Europe, or Yara's agreements with ATOME in Uruguay. However, these volumes are not expected to come on stream until around 2030, so no significant relief is anticipated in the short term[30] .

Challenges for food security

According to the FAO, the prolonged crisis in the Strait of Hormuz could turn into a global agri-food catastrophe. The window of opportunity to avert a disaster in the global food system is narrowing[31] .

In the short term, it is necessary to avoid export restrictions, strengthen social protection for consumers and provide greater funding to farmers, who will have to decide whether to change their cropping patterns to adapt to the availability of fertilizers or to allocate more land and resources to biofuels in order to benefit from higher oil prices, even if this leads to a reduction in the global food supply.

However, these measures are based on reacting to shocks and offer only a palliative effect for the food system, but do not contribute to the prevention of future crises.

As has been the case with the defence, energy, minerals and other commercial sectors, the conflict in Iran may mark a definitive turning point for the food market to focus on the resilience of supply chains. Food security forms the basis of societies' needs and, therefore, it stands to reason that countries should move towards greater strategic food autonomy.

[29] https://www.eij.news/post/india-achieves-record-low-green-ammonia-price-in-landmark-seci-auction#:~:text=Competitive%20Pricing:%20A%20Turning%20Point,the%20transition%20to%20cleaner%20alternatives.
[30] https://www.rystadenergy.com/news/beyond-oil-strait-of-hormuz-power-struggle-threatens-fertilizer-and-ammonia-trade
[31] https://www.fao.org/newsroom/detail/fao--protracted-strait-of-hormuz-crisis-could-turn-into-global-agrifood-catastrophe/en

Increasing crop yields

It is difficult to bring new producers on board due to the high cost of building new plants, extracting phosphates, the rising cost of fossil fuels and the relatively low prices of fertilizers. The nitrogen sector includes a greater number of producing countries, but competitiveness is limited by natural gas prices and a lack of investment in green ammonia production.

Traditionally, and for price reasons, nitrogen fertilizers have seen a significant increase compared to potassium and phosphorus fertilizers. This imbalance is causing unprecedented damage to ecosystems and their ability to provide services, particularly in poor countries. In the event of excess nitrogen, the consequences can also affect human health due to water pollution and over-fertilisation.

Furthermore, aridity is expected to increase in the coming decades, with more land being affected by reduced water availability. Future access to potassium (K) is therefore urgently needed in the regions most threatened by this increasing aridity, such as the Sahel, areas with a Mediterranean climate, and parts of Asia and South America, due to the crucial role of K in water uptake, transport and use efficiency by plants. This makes K a necessary tool for attempting to maintain acceptable levels of food production in the face of growing water scarcity.

In the case of phosphorus (P), the rise in phosphate fertilizer prices makes access very difficult for millions of farmers in poor countries and further reduces the already low efficiency of agricultural production across large parts of Africa and Asia, undermining their food security.

According to the FAO, fertilizer prices are expected to rise by 20% in 2026, adding pressure to an already strained food system[32] . Urea prices in the Middle East have risen by 37%[33] , whilst DAP prices in the US have increased by 5%[34] .

[32] https://agronews.ua/en/news/world-fertilizer-prices-may-rise-by-20-in-the-first-half-of-2026/
[33] https://www.coface.com/news-economy-and-insights/the-conflict-in-the-middle-east-is-causing-commodity-prices-to-soar
[34] https://www.chemanalyst.com/NewsAndDeals/NewsDetails/usa-dap-tumbles-4-5-in-mid-january-2026-as-demand-erosion-deepens-40827

A survey by the American Farm Bureau Federation revealed that 70% of US farmers cannot afford to purchase all the fertilizer they will need for the 2026 season.

Higher fertilizer prices mean lower profit margins for producers and could lead some to plant less input-intensive crops, such as rice, wheat or maize, rather than oilseeds, or to apply less fertilizer to their fields. However, in regions such as South and Southeast Asia, it is difficult to find a substitute crop that withstands the monsoons as well as rice does.

The immediate impact may be relatively limited, as many farmers have already purchased inputs for the spring planting season in the northern hemisphere. However, a prolonged conflict could affect planting decisions and yields in the southern hemisphere.

African countries find themselves in the midst of a perfect storm, as the food crisis is compounded by the climate crisis and rising sovereign debt, making it difficult to secure resources and financial aid for farmers. Without fertilizers, Africa faces large-scale food insecurity.

In addition to rising prices, the planting schedule is not working in their favour. Given the time of year, if sufficient quantities of fertilizer are not made available by 15 May, the vast majority of African countries will find themselves in a critical situation, unable to plant crops for the coming season.

Sub-Saharan Africa imports 19% of its fertilizers from the Middle East. In some countries, this percentage reaches worrying levels, such as in Sudan and Tanzania, which import 54% and 31%, respectively. With COVID-19 and the war in Ukraine, fertilizer use had already fallen by 25%[35] .

If rising prices are now added to the mix, African farmers face a situation of very narrow margins for sustaining their economic activity. Furthermore, landlocked African countries face additional increases in energy costs for road transport and logistics.

As in previous global food price crises, governments have resorted to trade policies to try to protect consumers from rising costs. Many net food-exporting countries have attempted to curb inflation by imposing export restrictions, whilst many importing countries have lowered barriers to the import of staple foods to achieve the same result.

[35] https://legrandcontinent.eu/es/2026/04/07/podria-el-bloqueo-del-estrecho-de-ormuz-provocar-una-hambruna-anatomia-de-un-choque-sistemico/

Although well-intentioned, these measures have proved ineffective in protecting populations from food price volatility[36] .

The challenges arising from the declining availability and accessibility of traditional fertilizers necessitate a shift towards new technologies and methodologies that improve their use and efficiency, optimising crop productivity to strengthen food security and environmental sustainability[37] .

Smart, precision and regenerative agriculture approaches, together with the application of new biotechnologies, can help address this global driver of change and should therefore be rapidly implemented on a global scale. There are medium- and long-term solutions that can help achieve a more resilient food system.

The expansion of certain regenerative agricultural practices, such as composting and crop rotation, as well as the use of nitrogen-fixing bacteria as microbial fertilizers, are options that could form part of the solution[38] .

With regard to strategic reserves, whilst it is widely accepted in the energy sector to maintain reserves of gas or oil, in the case of certain raw materials considered strategic—such as critical minerals—there are no equivalent stockpiles to deal with specific crises. In the case of fertilizers, there is also a lack of awareness of the importance of having these inputs available to ensure the population's food security[39] .

Geopolitical considerations: food diplomacy

Both the war in Ukraine and the conflict in Iran have demonstrated that sustaining a country's food supply chain is not merely an economic issue, but also a matter of national security. In contexts of hybrid warfare, food and fertilizers have become geopolitical tools.

Net exporters, particularly Russia, have begun to use fertilizer shipments as a tool to reaffirm their status as partners of countries in the Global South[40] .

[36] https://www.ifpri.org/blog/trade-policy-and-food-price-volatility-beggar-thy-neighbor-or-beggar-thyself/
[37] PENUELAS *et al*. *Agriculture & Food Security*. 2023.
[38] https://www.sciencedirect.com/science/article/pii/S030691922400201X
[39] https://www.agriculture.com/partners-attack-on-iran-could-disrupt-global-fertilizer-markets-11917178#:~:text=Courtesy%20of%20the%20American%20Farm,to%20absorb%20major%20geopolitical%20shocks.%E2%80%9D
[40] https://tass.com/economy/2109667/amp

Importers, by contrast, have come to recognise the vulnerability posed by external dependence on access to fertilizers and key intermediate products, such as ammonia. Indeed, Western sanctions in response to Russian aggression against Ukraine deliberately exempted fertilizer exports, due to their crucial role in the global food supply.

In this context, Belarus plays an important role due to its dominant position in potash production. Although exports of this product were subject to sanctions following the regime's crackdown on the domestic opposition in 2021, the current situation is so critical for importers that both the EU and the US are considering lifting these sanctions.

Potash is particularly significant because potassium has no substitute as an essential plant nutrient, and the United States is projected to remain 90% dependent on net potash imports by 2026[41] . In this context, Belarus, thanks to its increased potash production, is regaining its political relevance. This demonstrates that fertilizers possess a fundamental geostrategic component.

The disruption to trade in the Strait of Hormuz is also affecting the countries of the Persian Gulf, as they rely heavily on imports of agricultural products. Per capita wheat consumption in these countries is high, often exceeding 100 kg per person per year.

In Oman, however, rice forms a fundamental part of the daily diet. The region also relies on imported vegetable oils and oilseeds such as soya. Sugar is likewise an imported product, some of which is processed and subsequently exported to Africa and other regions[42] .

If the Strait of Hormuz remains closed to shipping, other countries in the Persian Gulf will have to seek alternative import routes[43] . Some grain can be transported by land from Russia to Iran, or from Syria and Turkey to Iraq, but at higher costs.

Saudi Arabia could import more via its Red Sea ports, but daily shipment volumes in that corridor have fallen by almost 60% since December 2023, due to attacks by Houthi rebels[44] .

[41] https://www.geopoliticalmonitor.com/belarus-wins-as-iran-war-upends-fertilizer-markets/
[42] https://www.ifpri.org/blog/the-iran-war-potential-food-security-impacts/
[43] https://www.ft.com/content/1ede5591-54f3-4589-8aec-109772635262
[44] https://www.ifpri.org/blog/impacts-red-sea-shipping-disruptions-global-food-security/

The EU and the fertilizer crisis

In the short term, there is no problem with the availability of fertilizers on the European market due to high domestic production and the high levels of imports recorded in the final quarter of 2025. However, the disruption to transit through the Strait of Hormuz is having an impact on rising gas prices, which has caused nitrogen fertilizer prices to rise significantly in just a few weeks[45] .

In these circumstances, European citizens are likely to face rising food prices. Despite domestic fertilizer production, the EU remains dependent on Russia for its supply, particularly the countries of Eastern Europe. According to the European Commission, around 22% of the EU's fertilizer imports in 2025 still came from Russia.

With the blockage of the Strait of Hormuz, more and more European countries are turning to Russian fertilizers and potash from Belarus, leading to a rise in prices due to the tariffs imposed by the EU on Russian products.

With gas prices rising, there is a risk that some fertilizer production plants in the EU will be forced to close[46] . The EU is thus facing a structural shift in fertilizer manufacturing. The reduction in the supply of cheap Russian gas as a result of the war in Ukraine led to a 19% drop in ammonia production, from which it has not yet fully recovered[47] .

At the same time, the EU must contend with rising energy costs and its continued dependence on Russia, factors that significantly affect the cost of fertilizer production, whilst there is a risk of increasing dependence on imports of these inputs. The time has come for the EU to address strategic autonomy in the food sector as well, something that cannot be achieved through short-term palliative measures, but rather through a medium- and long-term vision of the European model it wishes to develop in terms of food sovereignty.

In recent weeks, a debate has opened up in the EU regarding the possibility of a temporary suspension of the Carbon Border Adjustment Mechanism (CBAM) for fertilizers. The countries interested in applying this exemption were Italy and France[48] .

[45] https://www.euronews.com/2026/03/20/europes-fertilizer-crisis-prices-surge-due-to-iran-war-and-dependence-on-russia
[46] https://www.euronews.com/2026/03/20/europes-fertilizer-crisis-prices-surge-due-to-iran-war-and-dependence-on-russia
[47] https://www.plataformatierra.es/mercados/mercado-mundial-fertilizantes-2026-geopolitica
[48] https://www.eunews.it/en/2026/03/30/italy-and-france-urge-suspension-of-carbon-tax-to-ease-fertilizer-price-hike/

Ultimately, the European Commission has recommended not suspending the CBAM for fertilizers, considering that the production of these agricultural inputs in Europe is crucial to ensuring a stable, high-quality supply, with a carbon footprint 50% lower than that of imports[49] . Furthermore, the Commission maintains that the CBAM must ensure that exporters comply with the same environmental standards as European producers.

Suspending the CBAM for fertilizers would have a minimal impact on prices and could negatively affect European producers and the EU's climate policy. In this way, EU countries can reduce their dependence on imports, particularly in volatile geopolitical contexts, and move towards food sovereignty. Furthermore, the revenue generated by this mechanism can be used to provide support to farmers.

Conclusions

Around half of the world's population relies on crops grown using artificial fertilizers. Blockades in the Strait of Hormuz are having a severe impact not only on the energy sector, but also on the fertilizer industry and other key raw materials.

If the conflict persists, the world could face a global food crisis due to the disruption of the fertilizer supply chain, which could drive up prices, reduce agricultural yields and increase food insecurity, particularly in vulnerable regions such as Africa and Asia.

In the short term, food prices remain relatively stable thanks to previous good harvests, but in the medium and long term the situation could worsen, with reduced availability of inputs and higher costs. If the conflict persists, countries such as Morocco and Algeria could become key suppliers of fertilizers.

In Africa, the lack of fertilizers may exacerbate the consequences of droughts, famines and conflicts. Furthermore, African countries' debts mean that they have little scope to provide aid to farmers. The result is a perfect storm, with serious consequences for regional stability.

The COVID-19 pandemic, the war in Urania and the current conflict in Iran have highlighted the need to systematically address the resilience of the global food system,

[49] https://www.fertilizerseurope.com/fitfor55-ets-cbam/#:~:text=A%20CBAM%20without%20an%20export,Avoiding%20carbon%20leakage

by diversifying energy sources, strengthening infrastructure and removing bottlenecks in the fertilizer trade.

The solution to the geopolitical challenge of food security requires a structural change in the global food system.

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