WORLD AGRICULTURE FORUM

Policy Brief

When Conflicts Choke the World's Food Supply

Global Food System Risks from the Strait of Hormuz Disruption

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Key Facts at a Glance

94%	40%	45 Million
Drop in Hormuz ship traffic Through the Strait of Hormuz following the February 2026 conflict escalation, severely constraining global trade routes.	**Global nitrogen fertiliser from Middle East originates from Middle Eastern producers whose exports rely on shipping through Hormuz.**	**More people could be pushed into acute hunger this year, if conflict persists**

Introduction

Geopolitical tensions are rarely limited to the regions where they emerge. In today's interconnected global economy, disruptions within one critical location can spread quickly across energy markets, logistics systems, and agricultural supply chains. The global food system is especially vulnerable to such shocks since agricultural production and food trade rely not just on land and climate, but also on stable flows of energy, fertilisers, shipping capacity, and trade financing.

Strategic maritime corridors are critical for sustaining these flows. When major chokepoints become unstable or inaccessible, the consequences go beyond the transit of food commodities themselves. Such disruptions affect the availability and cost of agricultural production inputs such as fuel, fertiliser, and transportation services, influencing food prices, trade flows, and food access in different regions at the same time.

Recent developments in the Strait of Hormuz highlight the systemic vulnerability. The Strait, one of the world's most important maritime routes, connects Gulf oil markets to global consumers while also serving as a major route for fertilizer exports and shipping for commercial purposes. Disruptions in this route have implications that extend well beyond regional energy trade.

A global reaction to the Russia-Ukraine War revealed how quickly geopolitical instability can lead to global food system stress. The conflict did not only affect agricultural production in the Black Sea region; it triggered cascading effects across fertiliser markets, logistics systems, commodity prices, and food import costs worldwide.

The emerging disruption affecting the Strait of Hormuz poses a different but possibly far-reaching systemic risk. Unlike the Black Sea corridor, which predominantly influenced grain exports, Hormuz is at the center of energy supply, fertilizer production, and marine commerce routes. As a result, disruption at this node affects several critical components of the agri-food system simultaneously.

This policy brief analyses how disturbances in the Hormuz Strait may could transmit through global agri-food systems and contribute to rising food insecurity. It analyses the mechanisms through which maritime chokepoints influence agricultural production, trade flows, and food prices, drawing lessons from recent global crises. The brief proposes policy measures to limit the risk of a geopolitical disruption escalating into a larger food security crisis. The analysis is anchored in the United Nations Sustainable Development Goals (SDGs) framework particularly SDG 2 (Zero Hunger), SDG 10 (Reduced Inequalities), SDG 12 (Responsible Consumption and Production), SDG 16 (Peace, Justice and Strong Institutions), and SDG 17 (Partnerships for the Goals) which informs both the analytical approach and the policy recommendations presented throughout this brief.

Conceptual Framework

Understanding the link between geopolitical instability and food security requires looking into the systemic processes by which disturbances spread across interrelated sectors linking energy, logistics, agriculture, and food security.

The approach draws on analytical frameworks developed in FAO (2023), The Impact of Disasters and Crises on Agriculture and Food Security, and UNCTAD (2022), The Impact on Trade and Development of the War in Ukraine. Rather than viewing food crises solely as the result of production losses, this literature emphasises the role of systemic transmission mechanisms that link geopolitical shocks to agricultural and food security outcomes.

These transmission processes typically unfold through three interconnected stages.

1. Geopolitical Shock

The process begins with a geopolitical event that disrupts trade corridors, energy supply chains, or critical infrastructure. Such events may include armed conflict, maritime blockades, sanctions, or heightened security risks affecting major transport routes. The immediate effects of a disruption at a critical chokepoint include rapid changes in commodities logistics, insurance markets, and shipping routes. As documented by ZEF Policy Brief No. 68 (Algieri, Kornher, and von Braun, 2026) and UNCTAD (2026), the Strait of Hormuz disruption exemplifies this stage: near-total cessation of maritime traffic occurred within days of the February 2026 conflict escalation.

2. Agricultural System Transmission

These shocks are transmitted into the agricultural economy through several pathways during the second stage. This is more profound in agrifood systems that depend on inputs such as fertilisers and food that are imported for achieving local production as well as food security.

- ⇨ **Pressures on input costs :** Fertilizer production, irrigation costs, and mechanized farming operations are all impacted by fluctuations in energy prices. Since fertiliser manufacturing is highly energy-intensive, fluctuations in energy markets quickly result in increased costs for agricultural inputs. The IPES-Food Fuel to Fork report (2025) documents that food systems consume 15 percent of global fossil fuels and 40 percent of all petrochemicals, meaning every energy price shock is simultaneously a food production cost shock.
- ⇨ **Disruptions to trade and logistics :** Shipping reroutes, increased insurance premiums, and port congestion reduce the efficiency of global food trade. The availability of food commodities and agricultural inputs may be restricted by delays or transportation capacity restrictions.
- ⇨ **Market uncertainty and trade responses :** Precautionary policy measures like export restrictions, stockpiling, or market speculation may be triggered by rising prices and supply uncertainty. These reactions have the potential to increase price volatility in global commodity markets. The Agricultural Market Information System (AMIS) was established specifically to improve market transparency and reduce panic-driven policy responses during food price crises, making its active use during the current disruption an immediate governance priority.

3. Food Security Outcomes

The combined impact of these pressures results in several serious food security outcomes. Food prices typically increase with global supply disruptions, increasing the prices in nations that rely heavily on imports.

At the same time, agricultural output decreases when inputs like fuel, fertiliser, and seeds become unaffordable for farmers to use. Due to these difficulties, national food import bills are further elevated, requiring governments to increase spending to get basic supplies. Vulnerable groups thus face declining real incomes, which limits their access to essential and nutritious food. Altogether, these factors increase the risks of food insecurity and undernutrition across affected communities.

Due to the interconnectedness of global agriculture and food systems through supply chains, trade, and finance, the effects of these shocks are usually distributed unevenly. This conceptual framework highlights an important policy insight: food crises often emerge not only from harvest failures, but from disruptions in the systems that link producers, inputs, markets, and consumers. The World Food Programme (2026) The World Food Programme (2026) estimates that 45 million additional people could be pushed into acute food insecurity if the current disruption persists, directly threatening progress toward SDG 2 (Zero Hunger), SDG 10 (Reduced Inequalities), and the broader 2030 Agenda.

Shock	Impact on Agricultural System	Food Security Outcomes
Middle East Conflict affecting the Strait of Hormuz	Food & Agriculture System ✓ Fertiliser shortages ✓ Fuel and energy prices increase ✓ Shipping disruption and higher freight costs ✓ Trade restrictions and market instability	Outcomes ✓ Higher food prices ✓ Reduced agricultural production ✓ Rising food import bills ✓ Lower Livelihoods ✓ Increased food insecurity

Figure 1: *Conflict–Agriculture–Food Security causal chain*
(adapted from Ukraine war literature; applicable to the Strait of Hormuz disruption, 2026)

1. The Ukraine Precedent: What Conflict Does To Food Systems

The Russia–Ukraine War, which escalated to full-scale conventional warfare on 24 February 2022, provided one of the clearest contemporary demonstrations of how regional conflict can fracture global food systems with far-reaching consequences. Prior to the conflict, Russia and Ukraine together accounted for nearly a quarter of global wheat exports, alongside substantial shares of maize and sunflower oil shipments that flowed through the Black Sea. Yet the global food shock that followed was not driven primarily by a collapse in agricultural production. Rather, it emerged through disruptions to critical trade and logistics corridors. Blocked ports, mined agricultural land, damaged storage infrastructure, and disruptions in fertiliser markets constrained the movement of food and agricultural inputs.

The consequences have been long-lasting. Analysis by the Food and Agriculture Organization (FAO) of the United Nations suggests that the ripple effects of the conflict could contribute to elevated levels of chronic undernourishment well into 2030 , particularly in countries that depend heavily on food imports. Subsequent research has highlighted the uneven distribution of these impacts. A study published in Nature Communications Earth & Environment found that lower- and middle-income countries experienced disproportionate disruptions as global trade networks fragmented and commodity flows reorganized into smaller clusters. A scenario modelling study further demonstrated that indirect spillovers including energy price surges, fertiliser shortages, and precautionary export restrictions generated greater systemic disruption than the initial loss of agricultural supply from Ukraine itself.

These dynamics illustrate what analysts have described as a "billiard-ball effect": A relatively localized shock in one region can ricochet through interconnected energy markets, agricultural input supply chains, shipping networks, and financial systems. The resulting amplification can transform a regional disruption into a global food system crisis affecting countries far removed from the original conflict zone.

From a policy perspective, the key lesson is that modern food crises often emerge from systemic vulnerabilities within global trade and supply networks, rather than from production shortfalls alone. The Russia-Ukraine conflict demonstrated how disruptions to strategic transport corridors can reverberate across agricultural markets and threaten progress toward SDG 2 (Zero Hunger) and SDG 10 (Reduced Inequalities), while also weakening SDG 16 (Peace, Justice and Strong Institutions) and SDG 17 (Partnerships for the Goals) as the multilateral trade architectures underpinning global food security come under strain.

Understanding these systemic transmission mechanisms is essential for assessing the risks posed by disruptions in other strategic trade corridors including the Strait of Hormuz.

Key lesson from Ukraine: It is not the size of the conflict that determines the scale of the food crisis rather it is the strategic location of the chokepoint. The Black Sea was the critical chokepoint then; the Strait of Hormuz is the defining chokepoint now but with even wider global implications

2. The Strait Of Hormuz: A Chokepoint Of Existential Proportions

The Strait of Hormuz represents one of the most strategically significant maritime corridors in the global economy. This narrow waterway, approximately 54 kilometers wide at its narrowest point approximately 39 kilometres wide at its narrowest point, separating Iran and Oman's Musandam Peninsula and connecting energy-producing economies in the Gulf region with markets across Asia, Europe, and Africa. In addition to its central role in global energy trade, the corridor also supports major flows of fertilisers, petrochemicals, and commercial cargo that underpin agricultural production and food trade worldwide.

For this reason, disruptions affecting the Strait have implications that extend well beyond regional shipping activity. Unlike the Black Sea, which is a regional grain corridor, the Strait of Hormuz is the jugular vein of global agri-food supply chains. Any sustained disruption at this node therefore has the potential to transmit shocks simultaneously across multiple pillars of the global food system.

Recent developments illustrate the scale of disruption currently affecting the corridor. More than 30,000 ships, carrying roughly 11% of all global seaborne trade, transit the Strait annually (The Conversation). Following the escalation of tensions in early 2026, maritime traffic has declined by 94%. Dry bulk carrier transits are down 91%, with approximately 280 bulk vessels trapped in the Mideast Gulf (Kpler).

The implications extend into global energy markets as well. Approximately, 20% of global LNG exports pass through the Strait including shipments from Qatar's Ras Laffan facility which is the world's largest LNG terminal and has faced operational disruption during the crisis, as reported by (CNBC). According to projections by the International Energy Agency, global oil supply in March is expected to decline by approximately 8 million barrels per day, falling to 98.8 million barrels per day; its lowest level since early 2026 its its lowest level in recent years.

While some alternative export routes exist, their capacity remains limited. Only Saudi Arabia and the United Arab Emirates maintain operational crude pipelines capable of bypassing the Strait of Hormuz, with an estimated spare capacity of 3.5 to 5.5 million barrels per day. Even where additional infrastructure exists, the logistics and supply chains required to re-route substantial volumes have not been robustly tested at scale, limiting the system's ability to absorb shocks.

Financial markets responded almost instantly. As exports began to stall, uncertainty drove traders to factor in a sharp geopolitical risk premium, pushing Brent crude prices up by 20–35 percent in early March 2026 and briefly lifting them to around USD 115–120 per barrel, which is the highest levels seen since 2022.

Energy supply disruptions of this magnitude reverberate rapidly through fertiliser markets and agricultural input costs, given the heavy dependence of fertiliser production on natural gas. Maritime shipping costs have risen sharply as carriers use longer alternative corridors. ().

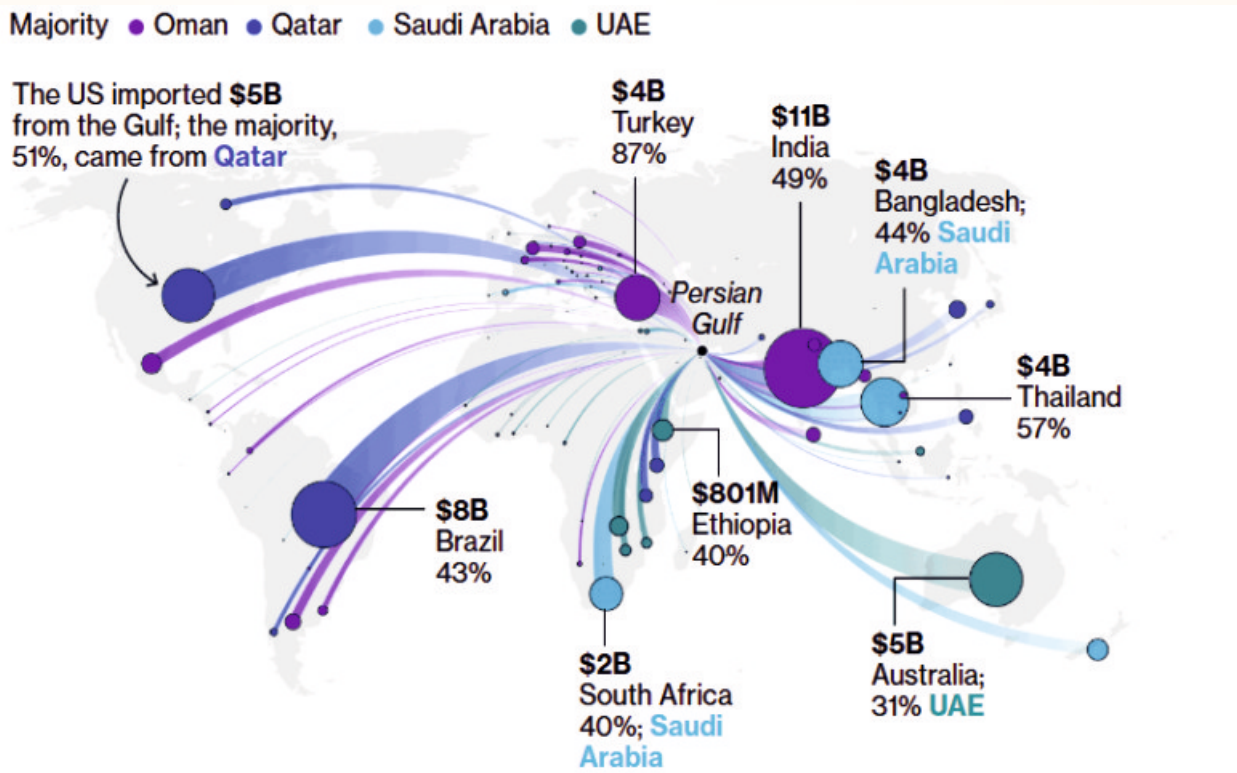
At the same time, heightened geopolitical risk has affected maritime insurance markets. Since early March 2026, more than half of the world's maritime insurers have suspended war-risk coverage for vessels operating in parts of the Persian Gulf, according to (Trade Finance Global). The resulting constraints on shipping insurance and trade finance have the potential to further slow the movement of goods, particularly for import-dependent economies that rely on international credit and insurance mechanisms to secure food shipments. These disruptions underscore the broader importance of stable trade and financial systems in sustaining global supply chains, a principle directly reflected in SDG 17 (Partnerships for the Goals) and SDG 16 (Peace, Justice and Strong Institutions), both of which recognise that open trade systems and multilateral coordination are foundational to food security and development outcomes globally.

Taken together, these developments demonstrate how disruptions affecting the Strait of Hormuz can propagate across interconnected markets. Rising energy prices influence fertiliser production costs; constrained logistics increase freight rates and delivery times; and tighter insurance and financing conditions restrict the movement of both agricultural inputs and food commodities. The result is a multi-channel transmission of risk through the global agri-food system, one that can ultimately influence agricultural production decisions, trade flows, and food prices far beyond the immediate region, with both immediate and longer-term consequences.

2.1 The Fertiliser Cascade: Planting Seasons at Risk

One of the most significant transmission channels through which disruptions in the Strait of Hormuz can affect global food systems is the fertiliser market. Modern agricultural production is highly dependent on synthetic nitrogen fertilisers, which are closely tied to energy markets and concentrated production regions. Any disruption to fertiliser supply chains during key planting periods therefore has immediate implications for agricultural output.

A substantial share of global nitrogen fertiliser exports originates in the Middle East and transits through the Strait of Hormuz. Approximately 40% of the world's nitrogen fertilisers originate in the region, with Qatar and Iran alone exporting an estimated 5 million tonnes of urea annually through the Strait, while the The UAE and Saudi Arabia contribute a further 2 million tonnes or more each year.More broadly, Gulf countries account for a significant share of global exports in urea and ammonia. Annually up to 30% of globally traded nitrogenous, phosphorous, and sulfur fertilisers (around 16 million tonnes) move through this corridor, linking production hubs to farms across Asia, Africa, and beyond.



Note: Some economies lag in reporting. Figures for commodity code HS 3102, Nitrogenous mineral or chemical fertilizers.

Source: Bloomberg analysis of imports from Trade Data Monitor

This concentration is also reflected in trade value. Between 2020 and 2025, Persian Gulf economies including Oman, Qatar, Saudi Arabia, the United Arab Emirates, Bahrain, and Iran exported an estimated USD 50 billion worth of nitrogen fertilisers, underscoring the scale of global dependence on this region for ritical agricultural inputs.

The implications of this concentration are particularly evident in import-dependent economies. Brazil, for instance, imports between 7.5 and 8.5 million tonnes of urea each year, meeting more than 90 percent of its domestic requirements through external supply. Similarly, India's fertiliser demand fluctuates between 7 and 11 million tonnes annually, shaped in part by subsidies and public support programmes. Disruptions to fertiliser flows therefore have direct consequences for agricultural production in some of the world's largest farming systems.

This level of dependence leaves global fertiliser markets highly exposed to disruption. When flows from the Gulf are constrained, supply gaps emerge quickly, with few viable short-term alternatives. Unlike energy markets, fertilisers are not supported by strategic reserves, and scaling up production elsewhere is often limited by high energy costs and existing export restrictions. Recent disruptions already illustrate the scale of this vulnerability, with reduced output and restricted trade flows effectively stalling a significant share of global supply. Estimates suggest that up to one-third of internationally traded fertilisers which is equivalent to 3 to 4 million tonnes per month, may not reach their intended markets

Given that synthetic fertilisers support nearly half of all global food production even modest supply disruptions can have outsized effects. Prices respond quickly, reflecting both tightening supply and the sector's deep dependence on natural gas as a primary feedstock.

In the first week of March 2026, Middle East granular urea prices rose to over USD 590 per tonne, marking an increase of nearly 20 percent within days. Other benchmarks followed similar trends, with U.S. Gulf diammonium phosphate prices rising and some regional markets experiencing even steeper spikes. In Egypt, for example, granular urea prices have surged by approximately US$60 per metric tonne since the closure, reflecting a sharp and immediate tightening of supply conditions. At the same time, previously negotiated contracts have been cancelled under force majeure, pushing buyers into spot markets and intensifying demand pressures. If disruptions persist, global fertiliser prices are projected to remain elevated, potentially averaging 15–20 percent higher in the first half of 2026 compared to the previous year (FAO).

For farmers, particularly smallholders across sub-Saharan Africa and South Asia are already stretched by post-pandemic debt and climate stress and will face a binary choice Smallholder farmers across sub-Saharan Africa and South Asia, already stretched by post-pandemic debt and climate stress, will face a binary choice: pay unaffordable prices or plant less. In such regions fertiliser purchases represent one of the largest seasonal production costs. Rising input prices can therefore influence planting decisions, as farmers weigh the cost of fertiliser against expected crop returns. In such contexts, reduced fertiliser application or delayed planting may become a rational economic response to uncertainty in input markets.

Because fertiliser shortages affect planting decisions months before harvest, disruptions in fertiliser trade can create delayed food crises that persist long after the geopolitical shock itself has subsided. These dynamics illustrate how instability in critical trade corridors can translate into agricultural production risks, with direct implications for SDG 2 (Zero Hunger), SDG 1 (No Poverty), and SDG 12 (Responsible Consumption and Production). When farmers reduce fertiliser use in response to price spikes, downstream effects on food availability disproportionately affect the most vulnerable, also undermining SDG 10 (Reduced Inequalities).

3. Who Bears The Heaviest Burden ?

The asymmetry of burden sharing documented in the Ukraine literature can repeat itself in the Hormuz crisis. The impacts of global food system shocks are rarely evenly distributed. The countries most affected by global food system shocks are often those that are structurally dependent on imported energy, fertilisers, and staple foods. These economies typically have limited fiscal space to absorb price increases and fewer logistical alternatives when major trade corridors are disrupted.

Three regional clusters appear particularly exposed to the cascading effects of disruptions in the Strait which are South and Southeast Asia, the Middle East and North Africa, and parts of East Africa. In each case, the combination of energy dependence, food import requirements, and supply chain connectivity to Gulf trade routes creates vulnerability to prolonged shipping disruptions.

South & Southeast Asia

South Asia faces the most acute dual shock, a physical energy cut and a simultaneous financial blow. Qatar and the UAE account for 99% of Pakistan's LNG imports, 72% of Bangladesh's and 53% of India's. Bangladesh is already running a structural gas deficit exceeding 1,300 million cubic feet per day; the Hormuz closure could collapse power generation and, with it, cold chains and food processing. India, which sources roughly 60% of its oil imports from the Middle East, faces compounding currency and inflationary pressure. For South Asia, this is a dual physical and financial shock that directly threatens SDG 2 and SDG 10 targets for over a billion people.

MENA & East Africa

Gulf states import 85% of their food. Saudi Arabia sources 40% of its grains and oilseeds through eastern Gulf ports; the UAE channels 90% through Jebel Ali, a hub serving 45–50 million people across the Gulf. Iran faces "a major food issue": virtually all of its corn and significant shares of wheat and soybeans arrive through Hormuz. Meanwhile, Yemen, Sudan and Somalia which rely on UAE transshipment face secondary shortages. Experts warns that African food systems, already under strain from the Ukraine disruption, face a compounding crisis with no fiscal buffer to absorb it.

Across these regions, the primary risk does not necessarily lie in immediate shortages of food commodities, but in a combination of rising import costs, delayed supply chains, and reduced access to key agricultural inputs. As seen during previous global shocks, these pressures can accumulate over time, influencing food prices, agricultural production, and household purchasing power.

Understanding these patterns of exposure is essential for designing targeted policy responses that strengthen food system resilience in the face of geopolitical disruptions affecting critical global trade corridors such as the Strait of Hormuz.

4. Implications For Trade, Input Costs & Food Security

Three interrelated waves of disruption are emerging from the Strait of Hormuz, mirroring and intensifying the patterns initially observed during the Russia-Ukraine War. However, the Gulf crisis introduces an added layer of complexity; the convergence of energy markets, fertiliser production, and maritime trade within a single chokepoint. , the timing of this disruption coincides with the Northern Hemisphere's springNorthern Hemisphere's Spring planting season, when fertiliser demand is both highest and least replaceable. Shortages of Middle Eastern nitrogen-based fertilisers could reduce 2026 crop yields by an estimated 3–5% in key importing regions such as India and parts of East Africa.

Three transmission mechanisms are particularly relevant for understanding how disruption may influence global food security outcomes.

Disruption of Trade Flows and Physical Supply Chains

The first mechanism is the collapse in trade volumes and shipping capacity. With approximately 350 ships stranded and shipping routes increasingly diverted through longer alternative corridors, the physical movement of agricultural commodities is contracting sharply. The corridor is particularly important for fertiliser supply chains: roughly one-third of global seaborne fertiliser trade (about 16 million tonnes), including sulphur and ammonia essential for nitrogen fertilisers, passes through this corridor. Because modern agriculture depends heavily on synthetic fertilisers produced from natural gas and ammonia feedstocks, disruptions to Gulf supply chains can rapidly transmit into higher global food production costs.

Grain shipments through the strait are smaller in volume but strategically important. Approximately 20 million tonnes of grains and oilseeds move through the Strait of Hormuz annually, representing less than 5% of global grain trade but forming a critical supply lifeline for import-dependent Gulf economies with few alternative logistical routes. Even limited disruptions therefore risk triggering regional shortages and price spikes, particularly in countries heavily dependent on maritime grain imports.

Rising Input Costs and Structural Price Pressures

The second transmission is structural inflation in agricultural input and food import costs. As shipping routes fragment, a single maritime chokepoint is transmitting a global cost shock. War-risk insurance premiums for vessels operating in the Persian Gulf have reportedly increased by up to 500% since late February, combined withwhile surcharges ranging from US$1,500–$4,000 per container, combined with approximately $1 million in additional fuel costs per voyage are significantly raising freight costs. across all alternative routing options. For importing countries in the Middle East and North Africa, these additional costs alone could add $2–$4 per tonne to the landed price of wheat and soy. Early market signals already point to tightening input markets, with urea prices spiking by roughly 14 percent in a single day, suggesting that fertiliser scarcity may translate quickly into higher production costs during the upcoming planting cycle.

Fertiliser markets are already showing signs of stress. More than 30% of urea of global seaborne urea exports originate in Gulf countries, and prices surged by approximately about 14% in a single day at the onset of the disruption. These dynamics are particularly concerning given the structural dependence of modern agriculture on synthetic fertilisers derived from natural gas. As fertiliser and energy prices rise in tandem, the economics of crop production deteriorate rapidly, especially for farmers operating with thin margins and limited capacity to absorb cost shocks.

Economic Impacts Across the Agrifood System

The disruption is expected to translate into measurable economic and welfare impacts across the global agrifood system. Global household real incomes are projected to decline by approximately 0.5 to 1.6 percent, while food consumption volumes may fall by 0.6 to 1.3 percent. Although short-term increases in retail food prices are expected to remain relatively modest rising by 0.2 to 0.6 percent, this masks a gradual erosion of purchasing power and dietary quality. At the same time, global agrifood incomes are projected to contract by 0.6 to 1.9 percent, indicating stress across both production and consumption systems.

These impacts are not evenly distributed. While most regions experience income contraction, Gulf countries may see a short-term increase in agrifood production ranging from 0.9 to 7.7 percent (ibid) as they attempt to compensate for disrupted imports through rapid domestic expansion. This reflects a crisis-driven form of import substitution, which, while temporarily stabilizing supply, is unlikely to be economically or environmentally sustainable.

Elsewhere, the impacts are more severe. Latin America is projected to face income declines of 1.4 to 2.7 percent due to its high exposure to fertiliser price shocks, while Asia and Africa experience consistent contractions. At a more granular level, the burden is even more pronounced: while overall agrifood income may decline by up to 1.89 percent (ibid) globally, farm-level income losses deepen to as much as 3.01 percent (ibid).

This divergence highlights a structural imbalance. Across most regions, the shock to producer income is significantly greater than the decline in household food consumption. Only part of the cost increase is passed on to consumers, resulting in a pronounced margin squeeze for farmers. Rising fertiliser and energy costs compress already thin margins, while limited market power constrains farmers' ability to adjust prices. In effect, the burden of adjustment is concentrated at the base of the food system.

Systemic Risks to Food Security

Beyond immediate economic impacts, the crisis introduces deeper systemic risks to global food and energy security. Fertiliser shortages, combined with elevated energy costs, are likely to constrain agricultural

production in upcoming seasons particularly in regions heavily dependent on Gulf exports of nitrogen and phosphate inputs.

Reduced fertiliser availability and higher production costs threaten to lower crop yields over time, tightening global supply conditions. These constraints can generate spillover effects across food commodities, where reduced grain availability contributes to broader price pressures. For low-income, import-dependent countries, these dynamics are especially concerning. As global markets tighten, even modest price increases can translate into reduced food access, worsening nutrition outcomes, and heightened vulnerability.

The World Food Programme estimates that, if the current conflict persists and oil prices remain above USD 100 per barrel, nearly 45 million additional people could fall into acute food insecurity. This would add to the 318 million people already facing acute hunger. During the onset of the Russia-Ukraine War, global hunger surged to record levels, affecting 349 million people, demonstrating how rapidly supply chain disruptions and cost shocks can translate into large-scale human consequences.

Further reinforcing this transmission mechanism, the World Bank estimates that every 1 percent increase in food prices can push approximately 10 million people into extreme poverty. The current crisis, however, is structurally broader, combining fertiliser shortages, fuel price volatility, and maritime transport disruption within a single geographic chokepoint, affecting many of the world's most import-dependent and economically vulnerable food systems. If fertiliser supply constraints disrupt the 2026 planting cycle, the consequences for food availability and affordability could persist well into 2027 and beyond, reversing progress toward SDG 2 (Zero Hunger) while deepening inequalities targeted under SDG 10 (Reduced Inequalities), undermining SDG 12 (Responsible Consumption and Production) through market distortions, and weakening the multilateral cooperation central to SDG 17 (Partnerships for the Goals).

Looking ahead, market responses to these pressures may further amplify risks. Rising energy prices and policy incentives could encourage farmers to shift toward biofuel feedstocks, reducing the availability of food crops and tightening supply conditions. In a stressed global market, such shifts risk reinforcing price volatility.

These dynamics may be compounded by other structural pressures. Reduced fertiliser use, adverse climate events such as El Niño, and persistent energy market volatility could interact to create larger supply shocks in 2027 and beyond. If these factors coincide with increased demand for biofuel crops, the resulting price responses could be significantly more severe than those observed in the immediate aftermath of the disruption.

5. Policy Recommendations

The disruption of the Strait of Hormuz is not a conventional supply shock, it is a systemic stress event affecting energy, fertiliser, trade logistics, and food access simultaneously. The experience of the Ukraine war showed that fragmented national responses are insufficient when global food systems are disrupted by geopolitical shocks.

Coordinated international action anchored in the United Nations Sustainable Development Goals framework is essential to prevent maritime chokepoint disruptions from escalating into prolonged global food crises. The following recommendations are drawn from and attributed to leading independent research institutions and multilateral bodies including the Center for Development Research (ZEF) at the University of Bonn, the International Panel of Experts on Sustainable Food Systems (IPES-Food), the Food and Agriculture Organization of the United Nations (FAO), the International Food Policy Research Institute (IFPRI), and independent academic experts.

	SDG	Policy Recommendation	Action Required
1.	SDG 16 Peace, Justice and Strong Institutions; SDG 2 Zero Hunger	Prioritise Diplomatic Resolution of Strait of Hormuz Disruptions as an Immediate Food Security Imperative	Restoring safe passage through the Strait of Hormuz must be treated as the single most urgent food security intervention available. Approximately 33% of global seaborne fertiliser trade including urea and phosphate critical for staple crop production — transits the Strait monthly, and approximately 350 ships are currently stranded. G20 and UN-level diplomatic coordination should be mobilised urgently to restore freedom of navigation. Practical interim measures should include war-risk insurance support, coordinated shipping protection, and temporary risk-sharing mechanisms to keep essential agricultural commodity and input flows moving. *Source: ZEF Policy Brief No. 68 — Algieri, Kornher, and von Braun (March 2026); FAO Information Note on Global Agrifood Implications of the 2026 Middle East Conflict; UNCTAD (2026), Strait of Hormuz Disruptions: Implications for Global Trade and Development.*
2.	SDG 2 Zero Hunger; SDG 1 No Poverty	Stabilise Fertiliser Markets and Deploy Emergency Credit Lines Before the 2027 Planting Window Closes	With fertiliser prices already up 20% within days of the Strait disruption, governments and multilateral development banks must act before the 2027 planting season window closes. For African countries, a 1% reduction in fertiliser use corresponds to a loss of more than 10,000 calories per hectare for cereal crops. Emergency credit lines, strategic fertiliser reserves, and targeted subsidies for smallholder farmers must be activated now. Countries without strategic reserves should receive emergency liquidity support coordinated through FAO, the World Bank, and regional development banks. *Source: ZEF Policy Brief No. 68 (Algieri, Kornher, von Braun, 2026); Kornher and von Braun (2023), FAO 2026 .*

3.	SDG 17 Partnerships for the Goals; SDG 12 Responsible Consumption	Operationalise Alternative Logistics Corridors as Globally Managed Public Goods	Reducing structural dependence on the Strait of Hormuz requires immediate investment and diplomatic backing for alternative logistics infrastructure. Saudi Arabia's Petroline pipeline and the UAE's Habshan-Fujairah pipeline should be treated as global food security assets. The International North-South Transport Corridor and the proposed Basra-Ceyhan rail and pipeline extension through Turkey should receive accelerated multilateral financing and be formally designated as global public goods. *Source: ZEF Policy Brief No. 68 (2026); UNCTAD (2026)*
4.	SDG 17 Partnerships for the Goals; SDG 2 Zero Hunger	Strengthen AMIS, WTO Disciplines, and Early Warning Systems to Prevent Panic-Driven Market Distortions	The Agricultural Market Information System (AMIS) and WTO disciplines on export restrictions must be actively enforced during the current crisis. Export bans and panic-hoarding by grain-surplus countries were primary amplifiers of both the 2007–08 and 2022 food price crises. IFPRI and FAO research consistently cautions that food price forecasts carry exceptional uncertainty under geopolitical stress, and that poorly calibrated responses can amplify rather than dampen price volatility. Real-time monitoring of fertiliser flows, energy markets, shipping disruptions, and food prices linked to early warning systems in collaboration with the FAO, the IEA, and the WFP can enable earlier and more calibrated policy responses. *Source: IFPRI (2026), FAO (2026); AMIS - Agricultural Market Information System*
5.	SDG 2 Zero Hunger; SDG 10 Reduced Inequalities	Protect Import-Dependent Countries from Cost Shocks Through Emergency Financing and Safety Nets	For many import-dependent countries particularly in sub-Saharan Africa, South Asia, and the MENA region the critical risk is not whether food is available globally but whether it remains affordable domestically. War-risk insurance premiums for vessels in the Persian Gulf have increased by up to 500% since late February 2026, while alternative maritime routing has added significant fuel and logistics costs per voyage. Emergency financing facilities, food import support mechanisms, and strengthened social safety nets are essential. A quarter of African countries entered the current crisis with foreign exchange reserves below three months of imports. *Source: FAO (2026); ZEF Policy Brief No. 68 (2026); FAO, IFAD, UNICEF, WFP, WHO (2025), The State of Food Security and Nutrition in the World; IMF (2023), Regional Economic Outlook: Sub-Saharan Africa.*
6.	SDG 12 Responsible Consumption; SDG 2 Zero Hunger	Implement 'Food First' Policies to Prevent Biofuel Diversion During Energy Price Surges	When energy prices spike, biofuel incentives systematically divert grain and oilseed crops from food markets, compounding price inflation. A 10% increase in food prices leads to a 3.5% rise in moderate or severe food insecurity and a 4.3% rise in child wasting. Governments should activate 'Food First' provisions that suspend biofuel mandates and blending targets when food commodity prices exceed defined thresholds. IFPRI analysis of the Strait of Hormuz disruption explicitly recommends this instrument as an immediate protective measure. *Source: IFPRI (2026), Iran Conflict and Global Food Security: Policy Implications; ZEF Policy Brief No. 68 (2026); FAO, IFAD, UNICEF, WFP, WHO (2025), State of Food Security and Nutrition in the World.*

7.	SDG 12 Responsible Consumption; SDG 13 Climate Action	Accelerate the Long-Term Transition Away from Fossil Fuel-Dependent Agricultural Input Systems	The current crisis has exposed the structural fragility of a global food system in which 99% of synthetic nitrogen fertiliser is derived from fossil fuels and up to 30% of globally traded fertiliser passes through a single maritime corridor. IPES-Food's Fuel to Fork report (2025) documents that food systems now consume 40% of all petrochemicals and 15% of global fossil fuels. The long-term policy response must invest in localised green ammonia production, biological nitrogen fixation, and agroecological farming. India's Andhra Pradesh Community Managed Natural Farming programme, transitioning six million farmers, demonstrates that systemic alternatives are scalable. *Source:IPES-Food (2025), Fuel to Fork: Fossil Fuels and the Global Food System; FAO (2026), Global Agrifood Implications of the 2026 Middle East Conflict; UNCTAD (2026),*
8.	SDG 2 Zero Hunger; SDG 10 Reduced Inequalities; SDG 17	Strengthen Intra-African Agricultural Input Production and Supply Chain Resilience Under AfCFTA	Sub-Saharan Africa imports over 90% of its fertiliser from outside the continent, and fewer than a quarter of smallholder farmers have access to formal credit to stockpile ahead of supply disruptions. The African Continental Free Trade Area (AfCFTA) should be urgently leveraged to develop continental agricultural input production and distribution capacity including regional fertiliser production facilities, strategic input reserves, and harmonised emergency import protocols. *Source: FAO (2026), ZEF Policy Brief No. 68 (2026)*

6. Conclusion: The Architecture Already Exists, We Just Need To Use It

The world has been here before. The Russia-Ukraine war demonstrated, painfully, that conflict-induced agricultural disruptions do not respect national boundaries. Every lesson learned in 2022–2025 is immediately applicable in 2026. The Strait of Hormuz crisis is not a bolt from the blue; it was signalled, anticipated by analysts, and is now a clear reminder that global food security today depends on far more than agricultural production. Energy markets, fertiliser supply chains, trade routes, and financial systems are deeply interconnected, and shocks quickly cascade across regions. What begins as a geopolitical disruption can rapidly translate into higher food prices, and reduced food access for millions. The real risk lies not only in immediate supply disruptions, but in delayed and compounding effects such as missed planting cycles, lower yields, and prolonged pressure on food affordability.

At its core, this crisis exposes a system that is fragile. Addressing it requires more than short-term fixes. It calls for a shift towards coordinated action that strengthens resilience across food, energy, and trade systems. In this regard, the SDG framework particularly SDGs 2, 10, 12, 16, and 17 provides the multilateral architecture for coordinated action. What is required now is not new institutions but the political will to activate them urgently. In an increasingly uncertain world, managing these interconnections and strengthening resilience at critical chokepoints such as the Strait of Hormuz is therefore not only a matter of maritime security but an essential component of safeguarding global food security and delivering on the Sustainable Development Goals.

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