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FOOD SECURITY IMPLICATIONS OF ARMED CONFLICT IN THE MIDDLE EAST AND THE STRAIT OF HORMUZ BLOCKAGE

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INTRODUCTION

While 2025 closed with optimistic forecasts of a “soft landing” for global inflation and economic recovery, the escalation of the conflict in and around Iran starting on February 28, 2026, has severely undermined the prospect for normalization. Within days after the US and Israeli attack on Iran, shipments through the Hormuz strait have fallen close to zero because Iran has attacked and threatened to continue attacks on ships passing the maritime chokepoint.[1] The closure of the Strait of Hormuz has triggered what analysts describe as one of the most significant energy crises since the oil embargo of the 1970s. Following the blockage, oil prices soared from around 60 US dollars per barrel in January 2026 to close to or above 100 US dollars per barrel in March 2026. Similar price changes are recorded for natural gas. The threats from Yemen had already partly affected international shipping by hindering access to the Suez Canal.

THE STRAIT OF HORMUZ IS A MARITIME CHOKEPOINT AS THE PRIMARY EXIT POINT FOR THE REGION’S ENERGY AND FERTILIZER EXPORTS, BUT ALSO RELEVANT FOR FOOD TRANSIT IN THE GULF REGION AND A GLOBAL TRANSSHIPMENT HUB.

The world is facing more than just an energy crisis; the new geopolitical scenario poses a direct threat to global food security, echoing—with the risk of surpassing—the fragilities of previous crises in 2008 and 2022. Unlike the 2022 crisis, triggered by the Russian war on Ukraine and the disruption of grain exports from the Black Sea, the current crisis is structural and driven by production costs, including the core of agricultural productivity: fertilizers.

The Gulf countries, namely Bahrain, Iran, Iraq, Kuwait, Oman, Saudi Arabia, and the United Arab Emirates, are highly dependent on food imports. Therefore, the conflict has an immediate impact on the costs of food supplies in the Gulf area. The population in Iran feels immediate pressure from soaring food prices and import disruptions, while the conflicts

threaten the affordability and accessibility of staples. Other countries in the region, Iraq, Afghanistan, and Lebanon, also experience import restrictions alongside deteriorating access to basic food.[2] Higher energy and fertilizer prices, supply chain disruptions, and global economic slowdown endanger food security beyond the Gulf region.

ENERGY PRICE-FOOD INFLATION LINKAGES

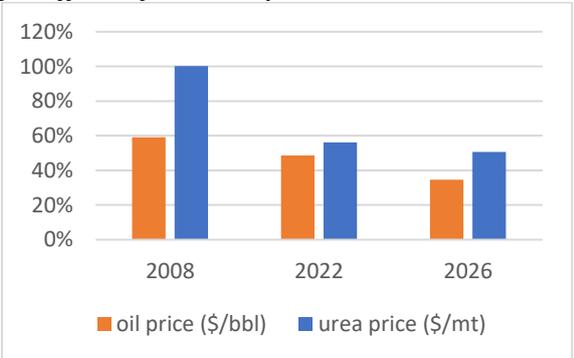
Energy price rises dictate global inflationary pressures and industrial viability and have immediate and direct transmission effects on food prices through multiple channels. Energy serves, in fact, as a systemically relevant input throughout the food value chain, affecting production costs through mechanization, processing through industrial energy use, and distribution through transportation fuel costs. Despite the short period of time, current price increases are already in the range of earlier crises (Figure 1).

Studies suggest that about a third of oil price changes are transmitted to food commodities [3], while the correlation between energy and food prices tends to rise in crisis periods, with a stronger linkage during the 2019-2023 period compared to previous crises.[4] Empirical evidence further suggests that energy price spikes serve as a leading indicator of food inflation. Because energy costs must filter through complex agricultural supply chains, there is typically some short-term impact through increased transportation costs, and a lag of several months through increased agricultural input costs before the impact fully hits food prices. If energy price increases are only transitory, there is the risk that price reductions are not fully passed on to consumers, and even if energy prices return to pre-crisis levels, food inflation will be significantly higher than before the crisis. Therefore, a rise in oil prices will have substantial impacts on food prices and inflation dynamics in many countries.

While global food prices have remained stable over the past weeks, there are substantial risks for the next weeks and months. The oil price shock creates secondary effects in vegetable oil markets because they increase incentives for biofuel production and consumption. For instance, the price of selected vegetable oils has increased by an average of 10% over the past month.[5] This is particularly relevant for importing countries, many of them in Africa.

Further, uncertainty about future oil price movements can trigger spillover effects from energy to food markets, leading to increased volatility of agricultural commodity futures prices.[6] Increasing uncertainty and risk in agricultural commodity markets attract investors and increase the likelihood that excessive food price speculation will further drive prices upwards.[7] These mechanisms had previously amplified global food price inflation and increased the risk of export restrictions – aiming at insulating domestic markets from the global price increases – which could further accelerate food price increases.

Figure 1: Year-to-year inflation at the oil price peak for different food crises periods



Note: Inflation is measured as 12 months price change.

Source: World Bank, pink sheet data.

On the other hand, there are reasons for a more positive outlook. Different from the previous crises, to this point, general food supply outlooks for 2026 are positive with an exceptionally good global grain harvest in 2025/26. The International Grains Council (IGC) forecasts worldwide grain production of 2.461 billion tons in 2025/26, marking the highest level in nine years and a 6% year-on-year increase that has led to an increase in carry-over stocks.[8] In addition to that, the US Dollar

depreciation in the past months has reduced the local currency cost of food imports invoiced in dollars. While energy price increases partially offset this benefit, the currency effect provides meaningful relief for food import bills.

LONG-TERM IMPLICATIONS OF HIGHER FERTILIZER PRICES

The “energy-to-food” transmission mechanism is most critical in the production of nitrogenous fertilizers, where natural gas is the primary feedstock. The Strait of Hormuz is a global hub, controlling 33% of the entire global seaborne trade in fertilizers (especially urea and phosphate). According to UNCTAD (2026), about 1.33 mil. tons of fertilizer are exported through Hormuz every month. This would imply that a 30-day closure of the Strait could be enough to trigger shortages and pose risks to nitrogen-dependent crops such as corn, wheat, and rice.

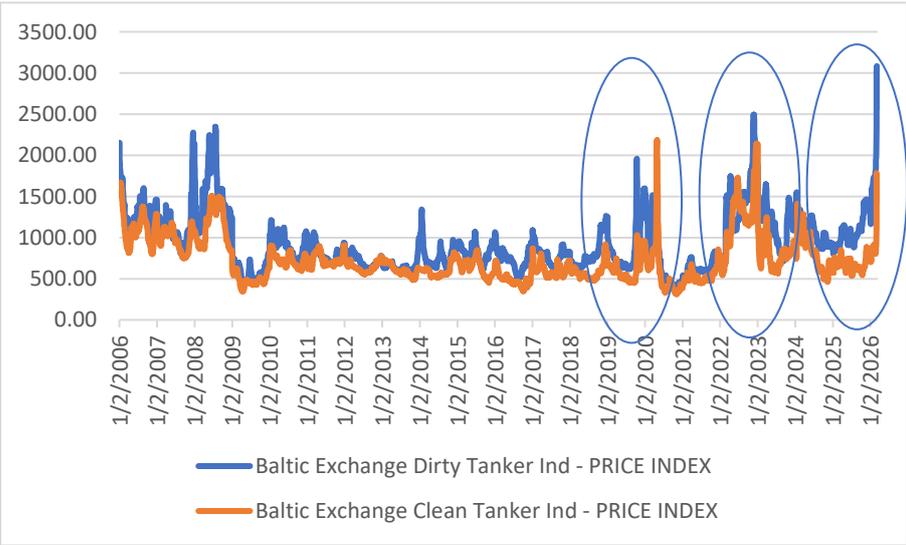
Many least developed and developing countries depend heavily on the Hormuz route for fertilizers. For example, several countries including Sudan, Sri Lanka, and Tanzania source a large share of their seaborne fertilizer imports from the Persian Gulf.[9] The blockade and the sharp increase in transport costs via alternative routes such as Oman or Saudi Arabia had an immediate “mark-up” effect, notably evidenced by the price surges in the Diammonium Phosphate (DAP New Orleans CFR Barge) and Urea Granular (CFR New Orleans) indices (Figure 1).[10]

Rising fertilizer prices would generate delayed but severe risks to global food security, especially in developing and least developed countries. Higher prices directly affect farmers’ production decisions by reducing fertilizer application and compromising harvest yields and production in the coming seasons. For African countries, a 1% reduction in fertilizer use is associated with a loss of more than 10,000 calories per hectare for cereal crops.[11] Broader general equilibrium and macro-economic effects amplify declines in agricultural output by 5%, but the impact will depend heavily on the duration of the disruptions and the extent of the price increase.[12]

TRADE DISRUPTIONS AND INCREASED TRADE COSTS

The Strait of Hormuz crisis has cascaded into broader breakdowns in trade routes significantly increasing shipping costs and delivery times. Due to security concerns, major container shipping companies, including Maersk, CMA CGM, and Hapag-Lloyd, suspended transits through both the Strait of Hormuz and related routes such as the Red Sea. Houthi-controlled Yemen announced it would resume attacks on commercial ships in the Red Sea, forcing Suez Canal traffic to reroute around Africa's Cape of Good Hope—adding weeks to transit times and substantially increasing shipping costs, affecting both food import costs and export revenues.

Figure 2: Baltic Exchange Dirty Tanker Index (BDTI) and Clean Tanker Index (BCTI), Daily data from 1 January 2006 to 13 March 2026



Note: Clean tankers are dedicated to low-sulfur and processed fuels, such as gasoline or jet fuel, while dirty tankers primarily handle unrefined crude oil.
 Source: Elaborations on Datastream LSEG

The Baltic Exchange Dirty Tanker Index (BDTI) and Clean Tanker Index (BCTI), benchmarks for maritime shipping costs, spiked during periods of crises, peaking during the Iran conflict in March 2026 at comparable rates to previous crises (Figure 2). In fact, maritime transport costs have increased over the board and not only on routes directly affected by the Iran conflict. Unlike the 2008 or 2022 crises, the 2026 event is a structural crisis of access, where

transport costs are dictated by the necessity of costly diversions around the Cape of Good Hope and the search for shadow routes through alternative nodes.

While Saudi Arabia and the UAE are increasingly diverting oil exports through alternative pipelines to Red Sea and Arabian Sea ports, the ports in the Gulf region, particularly the Port of Jebel Ali (Dubai), remain non-accessible. These ports are major transshipment hubs, and therefore, additional re-routing of shipments and more complicated inventory management will be the consequences. The experience of the COVID pandemic underscores how disruptions in maritime supply chains can lead to shipments backlogs and long-lasting disruptions of global seafreight.

The trade disruptions have substantial first and second order implications for global food security. Higher transportation costs increase the cost of imported food. Re-routing of

shipments and supply chain backlogs also create access problems for food imports. Higher costs for maritime transportation also affect exports to the Gulf region, for instance for agricultural products from Uganda and Kenya. Secondary effects are mostly related to general consequences for global trade and growth. Approximately 80-90% of world trade in goods (in volume) is moved by sea, facilitated by approximately 100,000 large cargo ships worldwide.[13] Shipment delays would have substantial negative

implications for global trade flows and would also reduce export incomes of many low- and middle-income countries (LMIC) needed to finance food imports.

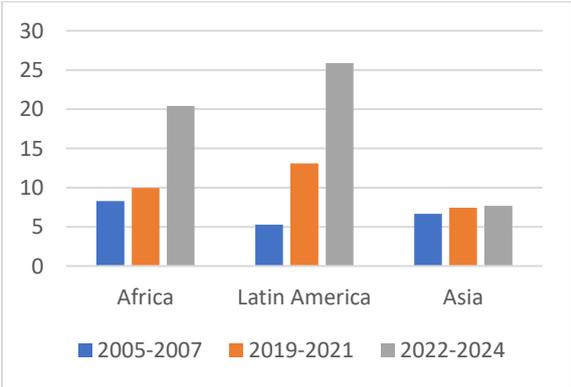
PERSISTENT FOOD INFLATION AND LIMITED FISCAL SPACE

A major concern of the current situation is that many LMICs countries entered this crisis already experiencing elevated food price inflation. The 2025 State of Food Security and Nutrition in the World (SOFI) report focused on food price

inflation and revealed that food prices peaked globally around May 2023, with food inflation reaching close to 30%, while wages have not kept pace with price increases. Recent food inflation levels in developing regions significantly exceeded food inflation levels prior to two other food crises in 2008 and 2022 (Figure 3). A 10% food price increase leads to a 3.5% rise in food insecurity (moderate or severe) and a 4.3% rise in child wasting – the indicator for short-term caloric deficiency.[14] In 2024, 2.6 billion people globally were unable to afford a healthy diet, with this figure rising to 1 billion in Africa alone. The current crisis hits many countries that have not fully recovered from previous shocks.

The cumulative impact of successive price shocks—COVID-19 disruptions, the Russia-Ukraine war crisis, climate-related harvest failures, and now energy price spikes—has eroded household purchasing power and depleted coping mechanisms at the household and state level. Many countries used their foreign exchange reserves and fiscal space to curb post-pandemic inflation and serve high debt-servicing costs. For instance, in 2023, a quarter of countries in Africa had reserves below three months of imports.[15] Therefore, the capacity for LMICs to buffer the current shock through social protection programs is severely impacted.

Figure 3: Average annual inflation rates within 3 years before the crisis



Source: FAOSTAT (2026)

The Iran conflict adds another layer of concern: humanitarian resource constraints. As of early 2026, an estimated 239 million people worldwide required humanitarian assistance.[16] Major crises include Ukraine,

Syria, Sudan, South Sudan, Yemen, and Gaza. This diverts attention and resources from chronic food insecurity situations in Africa, which are exacerbated by the current development. Nigeria alone expects 21-22 million people to need food assistance during the peak of the June-August 2026 lean season, according to the latest FEWS NET Food Security Outlook (February-September 2026).[17] This situation increases the risk of a lack of capacity to respond to an additional crisis, and forces to the so-called “hyper-prioritization” of food emergency aid, i.e., only those already in hunger may get assistance.

CONCLUSIONS AND OUTLOOK

The Iran conflict and Strait of Hormuz closure, on top of an already complex inflation situation, armed conflicts, and food emergencies in a number of countries, threaten the stability of the global economic order and generate serious food security risks:

1. Energy-intensive food components (production, processing, transport) are experiencing cost inflation
2. Fertilizer price spikes with medium-term productivity losses
3. Risk of food price increase, e.g., vegetable oils, for import-dependent countries
4. Compound effects of high energy prices, food inflation, and economic slowdown
5. Humanitarian funding gaps are widening as resources flow to acute conflict zones

Rising prices for energy, shipping, and food are placing an immense strain on LMICs already burdened by heavy debt and limited access to finance. Looking at the indicators, in comparison to previous food crises, we believe there is a risk of another global food crisis. The scale of economic consequences, at both regional and international levels, remains contingent on the duration of the conflict, the degree of escalation, and the geographic spread of the current hostilities. A prolonged conflict entails the risk of trade policy responses and further market disturbances that could exacerbate the ongoing crisis. The persistent blockade of the Strait of Hormuz causes

documented disruptions to global food and nutrition security. Maintaining such a blockade with knowledge of these consequences constitutes a potential violation of international criminal law on crimes against humanity under the Rome Statute.

The primary objective is therefore to solve the Strait of Hormuz blockage and the risks of attacks in the Red Sea in a permanent manner so that ships can use both routes safely. This would likely have an immediate effect on energy prices, and spillover effects on food markets could be held minimal. If disturbances persist, the international community must move toward a concerted, multilevel response:

- **Protect Freedom of Navigation:** Immediate diplomatic and political coordination at the G20 and UN is essential to keep fertilizer and food markets open and to avoid further trade disturbances.
- **Operationalize Alternative Logistics:** To reduce reliance on the Strait of Hormuz, immediate investment and diplomatic backing should be given to expanding pipeline capacities and land-based corridors. This includes maximizing Saudi Arabia's Petrolina (aiming for 7 million bpd) and the UAE's Habshan-Fujairah Pipeline capacity. The International North-South Transport Corridor and the proposed Basra-Ceyhan rail/pipeline extension through Turkey should be treated as global public goods, receiving accelerated financing to bypass the maritime chokepoint.
- **Stabilize Markets & Input Access:** Strengthening the WTO and AMIS is vital to prevent "panic-hoarding" and ensure market transparency. With fertilizer prices currently spiking by 20%, governments must deploy emergency fiscal buffers and credit lines for farmers. These safety nets are essential to ensure that the 2027 planting season is not compromised by liquidity constraints, which would otherwise lock in a multi-year global food shortage.
- **Long-term resilience** requires diversifying supply chains away from single-point

chokepoints. This includes investing in localized green ammonia production to reduce Gulf dependency and implementing Food First policies that disincentivize the diversion of field crops to biofuels during energy-driven price surges.

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