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# 100 days into the Iran conflict: Implications for Chinese food security and fertilizer supply

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## Background

The Iran war began on 28 February 2026, when the United States and Israel launched coordinated air and missile strikes on Iranian military infrastructure, missile systems, and nuclear facilities. The operation aimed to prevent Iran from developing nuclear weapons and to neutralize what both countries described as a major regional security threat (Time, 2026). In retaliation, Iran attacked U.S. military bases across the Gulf region, including in the United Arab Emirates (UAE), Qatar, Kuwait, Iraq, and Bahrain, while Israel targeted Hezbollah positions in Lebanon.

The conflict has remained highly volatile despite ceasefire agreements reached on 8 April and extended on 22 April (Al Jazeera, 2026). On 14 June, U.S. President Donald Trump announced that the U.S. and Iran had reached a preliminary agreement to halt hostilities and reopen the Strait of Hormuz. However, analysts continue to watch closely for signs of implementation by both sides (CNN, 2026).

The escalating conflict effectively closed the Strait of Hormuz, a critical chokepoint through which large volumes of oil, natural gas, fertilizers, and other commodities are traded globally. As a result, crude oil prices surged, peaking at USD 120 per barrel on 9 March. Prices remained highly volatile and stood at USD 96 per barrel on 9 June, still well above pre-war levels of below USD 70 per barrel (AP; CNBC, 2026).

This report examines the potential impacts of the Iran conflict on Chinese food production, agricultural inputs, prices, and trade.

## Impact on global food security

The ongoing Iran war has raised concerns about global food security by disrupting key energy, fertilizer, and shipping systems that underpin modern agriculture. Analysts warn that the conflict's effects could extend well beyond the Middle East if disruptions persist.

A central risk stems from disruptions to shipping through the Strait of Hormuz, the main maritime outlet for the Persian Gulf. The waterway normally handles a significant share of global trade in energy and agricultural inputs, including roughly one-fifth of global oil consumption and 20–30% of global maritime fertilizer exports (IFPRI, 2026). When conflict disrupts traffic through this route, the resulting supply shocks drive up energy and fertilizer prices, increasing agricultural production and transport costs worldwide (Reuters, 2026).

Food security risks are particularly acute in the Gulf region itself. Countries in the Gulf Cooperation Council import around 80–90% of their food, making them highly vulnerable to disruptions in maritime trade routes. Reuters reports that the war has already tested the region's post-2008 strategy of relying heavily on imports and overseas agricultural investments, raising fears of shortages and higher prices if shipping disruptions persist (Aljazeera, 2026).

In the short term, existing food reserves and diversified supply sources may help cushion the shock. However, analysts caution that a prolonged conflict could reignite global food inflation by increasing energy costs, disrupting fertilizer markets, and slowing trade flows simultaneously. Researchers at the International Food Policy Research Institute (IFPRI) note that such disruptions could “ripple through global energy, fertilizer, and food markets”, threatening food security, particularly in import-dependent regions (IFPRI, 2026).

Overall, while the immediate food security impacts are likely to be concentrated in the Middle East, the interconnected nature of global energy, fertilizer, and food systems means that a prolonged Iran war could raise food prices and production costs worldwide.

### Impact on global energy supplies

One immediate channel of impact is energy. Rising oil prices increase the cost of operating farm machinery, transporting food, and processing agricultural products. Previous oil shocks have shown that food prices tend to move closely with energy prices, amplifying inflation and threatening food affordability, especially in low-income countries.

### Impact on global fertilizer supply

A second critical channel is fertilizer supply. The Persian Gulf region is a major exporter of fertilizers, including urea, ammonia, and phosphates. According to the International Food Policy Research Institute (IFPRI), disruptions to shipping from Gulf exporters—including Qatar, Saudi Arabia, Bahrain, and Oman—have already pushed fertilizer prices higher (*ibid.*). Since natural gas is a key input in the production of nitrogen fertilizers, disruptions to energy and gas supplies also increase fertilizer production costs globally.

Qatar, Saudi Arabia, and the United Arab Emirates (UAE) collectively account for roughly 43% of global seaborne urea exports and 44% of global sulfur production, an essential input for phosphate fertilizer manufacturing (Tizes, 2026). As a result, disruptions to exports from the region can have significant repercussions for global fertilizer markets.

Higher fertilizer prices can lead farmers to reduce application rates or shift to less input-intensive crops, potentially lowering yields and tightening global food supply.

### Impact on China and its food security

The Iran war could affect China's food security primarily through energy and fertilizer markets, rather than through direct disruptions to food imports. As the world's largest energy importer, China remains closely linked to the Middle East through oil and fertilizer supply chains that underpin agricultural production.

First, the conflict may increase energy costs for China's agricultural sector. China imports roughly half of its crude oil from the Middle East, including supplies from Saudi Arabia, Iraq, the United Arab Emirates (UAE), Oman, and Iran, which together amounted to approximately 4.9 million barrels per day in 2025 (Downs, 2026). In addition, China sources nearly one-third of its liquefied natural gas (LNG) from the region. Disruptions to shipping through the Strait of Hormuz—through which a large share of Gulf energy exports passes—could therefore push up global oil and gas prices.

Higher energy prices translate directly into higher agricultural production costs in China by increasing the costs of diesel for farm machinery, irrigation, fertilizer production, and food transportation. Rising fuel prices also increase logistics and processing costs throughout the food supply chain (*ibid.*). However, China is relatively well protected against severe supply disruptions due to its large strategic oil reserves, estimated to cover 150 days or more of imports, and its diversified sources of crude oil.

Second, the war could contribute to higher fertilizer prices, increasing input costs for Chinese farmers. The Persian Gulf is a major exporter of nitrogen and phosphate fertilizers, including urea, ammonia, and diammonium phosphate. According to IFPRI, disruptions to shipping through the Strait of Hormuz could affect 20–30% of global fertilizer exports, putting upward pressure on prices (IFPRI, 2026). Although China is a major fertilizer producer, it remains integrated into global fertilizer markets and relies on imported natural gas and certain fertilizer inputs. As a result, rising global prices could increase domestic production costs.

Third, global food price volatility could affect China indirectly through trade. Higher energy and fertilizer prices raise production costs worldwide, potentially tightening global grain markets. Although China maintains large grain reserves and produces most of its staple foods domestically, it imports large volumes of oilseeds and feed grains—particularly soybeans—making its livestock sector sensitive to global price changes. Rising input costs internationally could therefore increase China's food import bill and put upward pressure on domestic food prices.

Overall, while China is less vulnerable to immediate food shortages than highly import-dependent regions such as the Gulf states, the Iran war could still affect China's food system through three interconnected channels: higher energy prices, rising fertilizer costs, and increased volatility in global agricultural markets. If disruptions to Gulf trade persist, these pressures could raise food production costs and contribute to higher food prices in China.

## Impact on China's fertilizer and agro-chemical use and imports

China is the world's largest consumer of fertilizer. In 2024, total fertilizer use reached nearly 50 million tons, of which nitrogen and compound fertilizers accounted for 15.6 and 24.3 million tons, respectively (Figure 1). Domestic fertilizer production stood at 57 million tons in 2023 (Huajing, 2024).

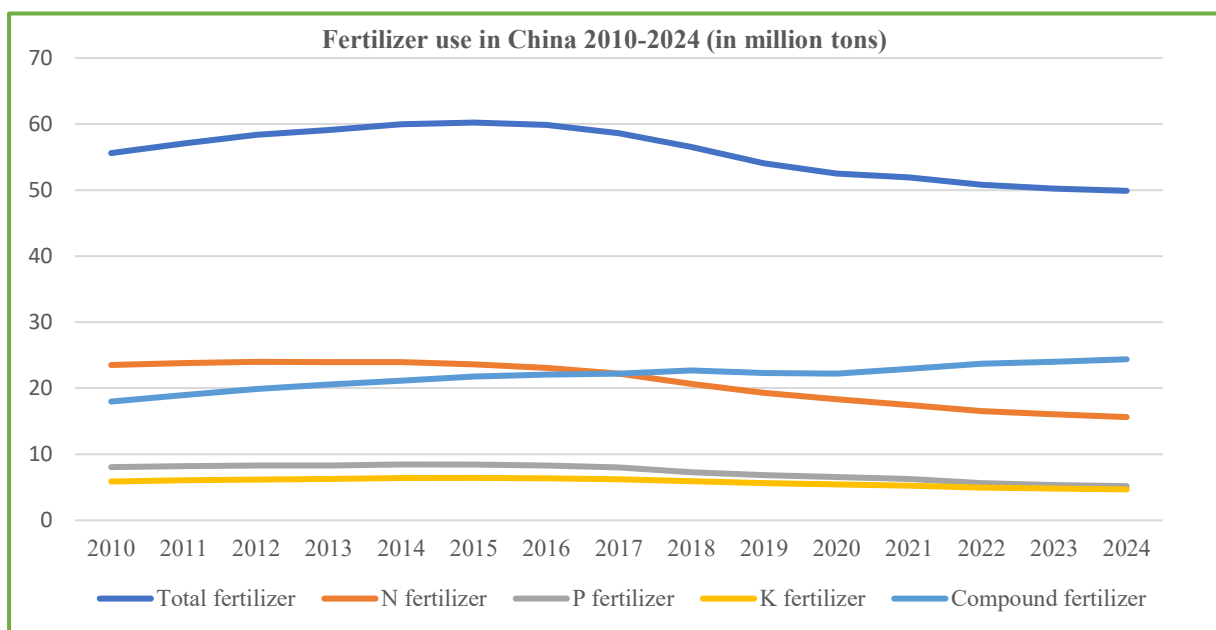


Figure 1: Chinese fertilizer uses 2010-2024 (million tons) (NBS, 2025)

Fertilizer use in China has been declining steadily since 2017, yet China's total consumption and application rate per hectare remain among the highest in the world. Total fertilizer consumption stood at nearly 50 million tons in 2024, with application rates reaching approximately 400 kg/ha in 2023 — a figure that dwarfs those of major agricultural economies such as Germany and the United States, both of which apply around 100 kg/ha (Figure 2).

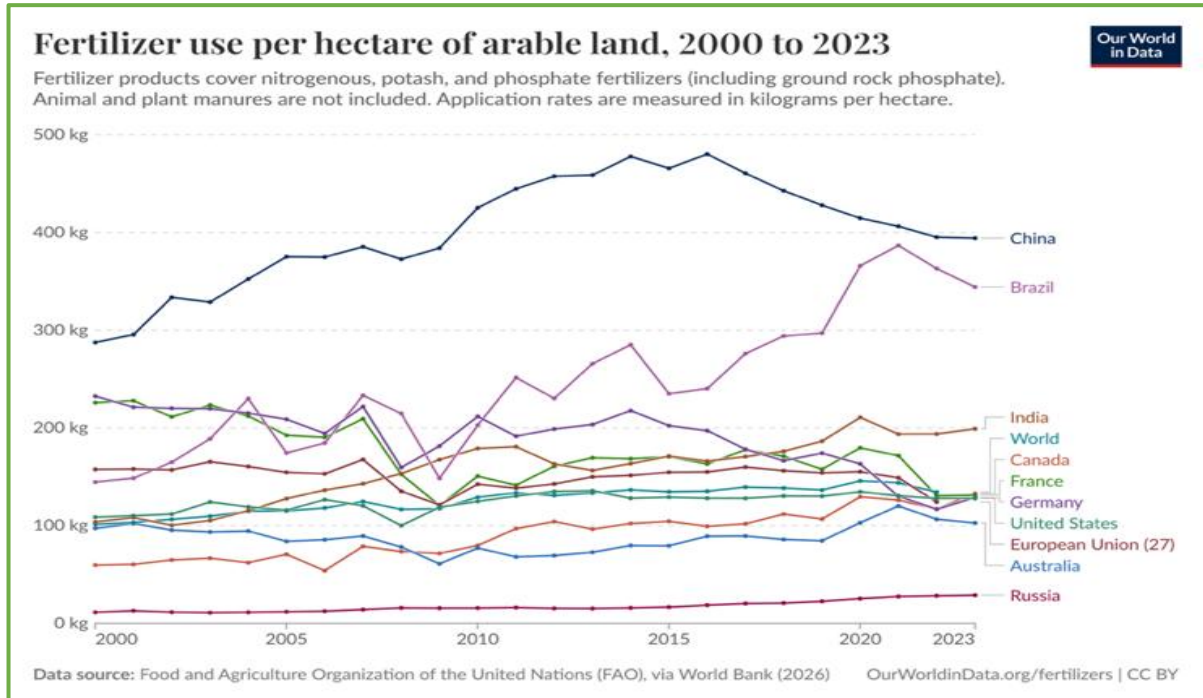


Figure 2: Per hectare fertilizer use of China (Our World in Data, 2025)

Despite accounting for approximately 25% of global fertilizer production, China remains a major fertilizer importer (Tizes, 2026). In 2024, China imported 14 million tons of fertilizers, including 12.6 million tons of potassium chloride and 1.2 million tons of NPK compound fertilizers (Figure 3).

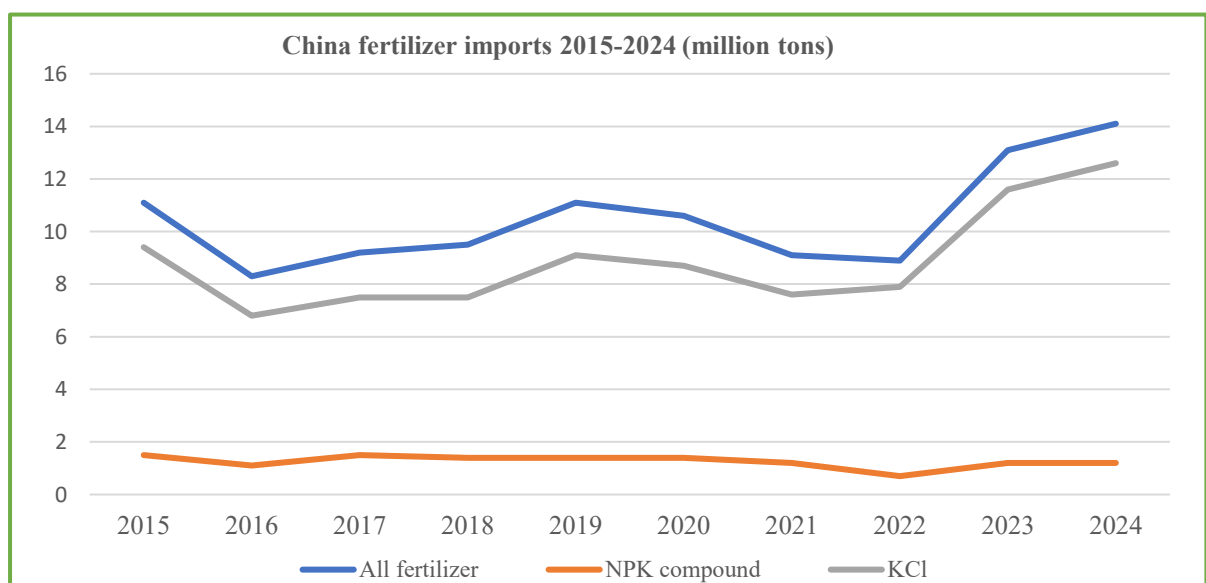


Figure 3: Chinese fertilizer imports 2015-2024 (NBS, 2025)

In response to the Iran war, China instructed exporters to suspend nitrogen fertilizer shipments and tightened export controls. According to Tizes (2026), the restrictions could affect 50–75% of China's 2025 fertilizer export volume. While the Gulf region accounts for roughly one-third of global fertilizer exports, China accounts for approximately one-fifth and serves as a major supplier to countries such as Brazil, Indonesia, and Thailand (ibid.).

Disruptions to shipping through the Strait of Hormuz have contributed to rising fertilizer prices globally, including in China. Domestic prices for sulfuric acid, a key input in phosphate and ammonium sulfate fertilizers, increased by 72% between early February and mid-April (Lin et al., 2026) (Figure 4).



Figure 4: Agricultural commodities prices in 2026 in China. (Lin et al, 2026)

In addition, domestic pesticide prices in China increased by 46% between early February and mid-April, largely due to disruptions to Middle Eastern petrochemical production and supply caused by the war (ibid.).

## Impact on Chinese inflation and consumer prices

As of 9 June, one hundred days into the Iran war, most major economies had experienced rising inflationary pressures (Taylor, 2026). While China's economy had faced persistent deflation since 2023 amid slowing economic growth and a downturn in the real estate sector, consumer inflation began to increase in April and May.

The Consumer Price Index (CPI) increased by 1.0% year-on-year in March and by 1.2% in April (Bao1, 2026). The Producer Price Index (PPI) rose by 2.8% in April and reached 3.9% in May, its highest level in four years (Bao2, 2026). Consumer prices increased by 1.2% year-on-year in May (Bao2, 2026; NBS2, 2026).

Many analysts attribute the strong increase in producer prices to higher energy costs and rising prices for other industrial inputs used in Chinese manufacturing (Bao2, 2026). If disruptions in the Gulf region persist, they could place further upward pressure on food prices in China.

## Outlook

Overall, China is better positioned than many other Asian countries, including Pakistan, Thailand, and the Philippines, to absorb energy and fertilizer supply shocks stemming from the Iran conflict. This resilience is supported by China's large domestic production capacity, strategic reserves, and diversified import sources.

However, China is not immune to the effects of a prolonged conflict. Energy products, fertilizers, and agricultural commodities are traded on global markets, meaning that sustained increases in international prices are likely to translate into higher production costs and, ultimately, higher food prices. Evidence of these effects is already emerging in China through rising input costs and producer prices.

Policymakers and market participants should closely monitor developments in fertilizer markets, as well as trends in consumer and producer prices, to assess the longer-term implications of the conflict for China's food security.

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