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Food Security in the State of Qatar, 1975–2025: From Near-Total Import Dependence to Blockade-Driven Self-Reliance

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Abstract

Qatar combines one of the world's highest per-capita incomes with one of its least favourable environments for agriculture. It has no permanent rivers, minimal rainfall, saline soils and a single land border. For most of the period since 1975 its food security rested on wealth and imports, more than 90% of them routed through neighbouring Gulf states. Population growth from under 200,000 in the mid-1970s to around three million by the 2020s multiplied demand without changing that model. Two shocks reshaped policy. The 2007–2008 global food price crisis led to the creation of the Qatar National Food Security Programme in 2008. The diplomatic and trade blockade imposed by Saudi Arabia, the United Arab Emirates, Bahrain and Egypt in June 2017 then abruptly closed the land border and regional transhipment routes. Qatar responded by opening direct shipping lines through the new Hamad Port, airlifting dairy cattle, and adopting a National Food Security Strategy for 2018–2023, followed by a 2030 strategy. Self-sufficiency rose from about 28% to above 100% for fresh dairy, reached about 127% for fresh poultry, and rose from about 20% to 46% for vegetables. Red meat remained at about 18%. Qatar's Global Food Security Index rank improved from 29th in 2017 to 13th in 2019 before methodology changes placed it 30th in 2022. This review analyses the strategy's components, costs and limits, including heavy dependence on imported feed and energy-intensive desalination, and the renewed exposure revealed by the 2026 Hormuz shipping disruption.

Keywords: *Qatar; food security; 2017 blockade; self-sufficiency; National Food Security Strategy; dairy; protected agriculture; Hamad Port; strategic reserves; Strait of Hormuz*

1. Introduction

Qatar's food system is a stress test for the modern concept of food security. On the access pillar it has long been among the most secure countries on Earth: household incomes are high, food is affordable and outright hunger is effectively absent. On the availability and stability pillars it has been highly exposed. Arable land is less than 2% of the territory,

renewable freshwater is close to zero, and almost all food arrives by sea, air or a single road crossing (Karanisa et al., 2021).

Until 2017 a large share of imports moved by truck across the Saudi border or was transhipped through Jebel Ali in Dubai. That concentration proved to be the system's critical vulnerability.

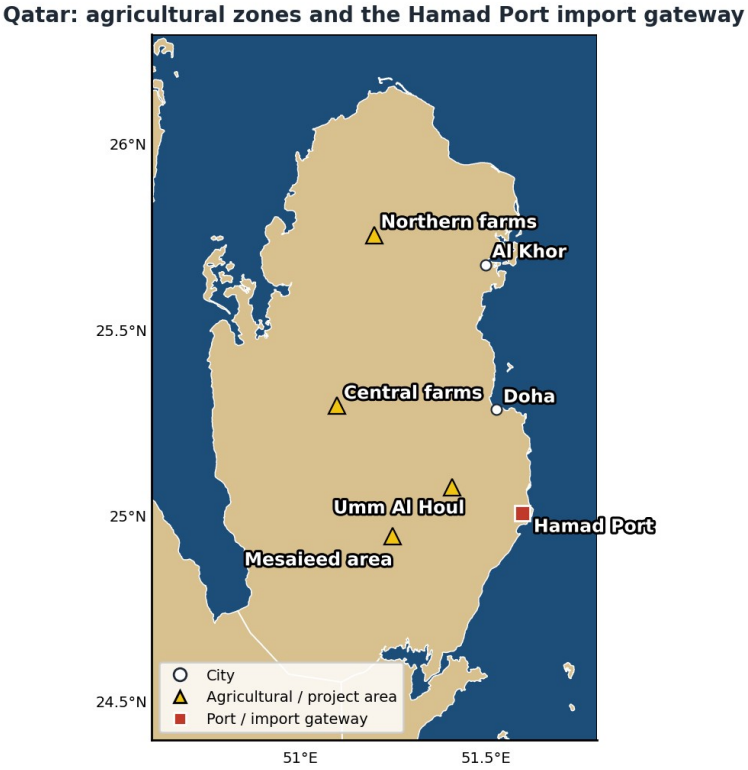


Figure 1. Map of the Qatar peninsula showing the main farming zones in the north and centre (Al Khor and surrounding farms), the Umm Al Houl economic zone and Hamad Port, the deep-water port opened in 2016–2017 that became the country's principal food gateway after the blockade. A cartographic base map is used because the global satellite mosaic is too coarse at this scale.

2. Methods and sources

The review draws on:

- official targets of the National Food Security Strategy (NFSS);
- production and self-sufficiency data reported by the Ministry of Municipality and published in Qatari national media (The Peninsula);
- the peer-reviewed literature on Qatari agriculture;
- the Economist Impact Global Food Security Index (GFSI);
- FAO regional analysis.

Self-sufficiency ratios are defined as domestic production divided by apparent consumption. Values above 100% indicate a surplus available for export or storage.

3. 1975–2007: wealth-based food security

After independence in 1971 and the oil-price boom of 1973–1974, Qatar pursued food security chiefly through income and trade. Government farms and small private holdings in the north produced:

- dates;
- some vegetables in the cool season;
- forage irrigated from a shallow aquifer.

This drew the aquifer down, and salinisation followed. Consumers relied on supermarkets supplied through Saudi Arabia and the UAE.

The opening of the North Field gas fields in the 1990s, and the liquefied natural gas boom of the 2000s, multiplied national income and the expatriate workforce. Food demand grew accordingly. Food policy, however, remained largely a matter of trade facilitation and consumer price controls on staples.

4. 2008–2016: the first strategic turn

The 2007–2008 global food price spike, and export restrictions imposed by several grain and rice exporters, led Qatar to create the Qatar National Food Security Programme (QNFSP) in 2008. The QNFSP set out an ambitious plan that included:

- solar-powered desalination;
- expansion of domestic production;
- strategic reserves;
- overseas agricultural investment.

In 2008 Qatar also created Hassad Food as a sovereign agricultural investment vehicle. It acquired assets in Australia, Sudan, Turkey and elsewhere.

The QNFSP's most ambitious goals, including high self-sufficiency in field crops, were later judged unrealistic given water and energy costs. The programme nonetheless built institutions, data and planning capacity that proved valuable after 2017 (Woertz, 2013).

5. The 2017 blockade and the strategic response

5.1 The shock

On 5 June 2017, Saudi Arabia, the UAE, Bahrain and Egypt severed relations with Qatar. They:

- closed the only land border;
- banned Qatari ships from their ports;
- closed their airspace.

At the time, a large share of Qatar's dairy and fresh produce entered through the Saudi land border. Supermarket shelves emptied temporarily as consumers stockpiled.

5.2 Immediate measures

Turkey and Iran supplied emergency food by air and sea. Hamad Port, which had begun operating in 2016–2017, allowed direct shipping lines to Oman, India, Turkey and beyond. These lines bypassed Jebel Ali.

The private company Baladna airlifted thousands of Holstein cows to Qatar within weeks. It built large climate-controlled dairy complexes and moved within about two years from almost nothing to supplying the entire fresh-milk market.

5.3 The National Food Security Strategy 2018–2023

The NFSS 2018–2023 rested on four pillars:

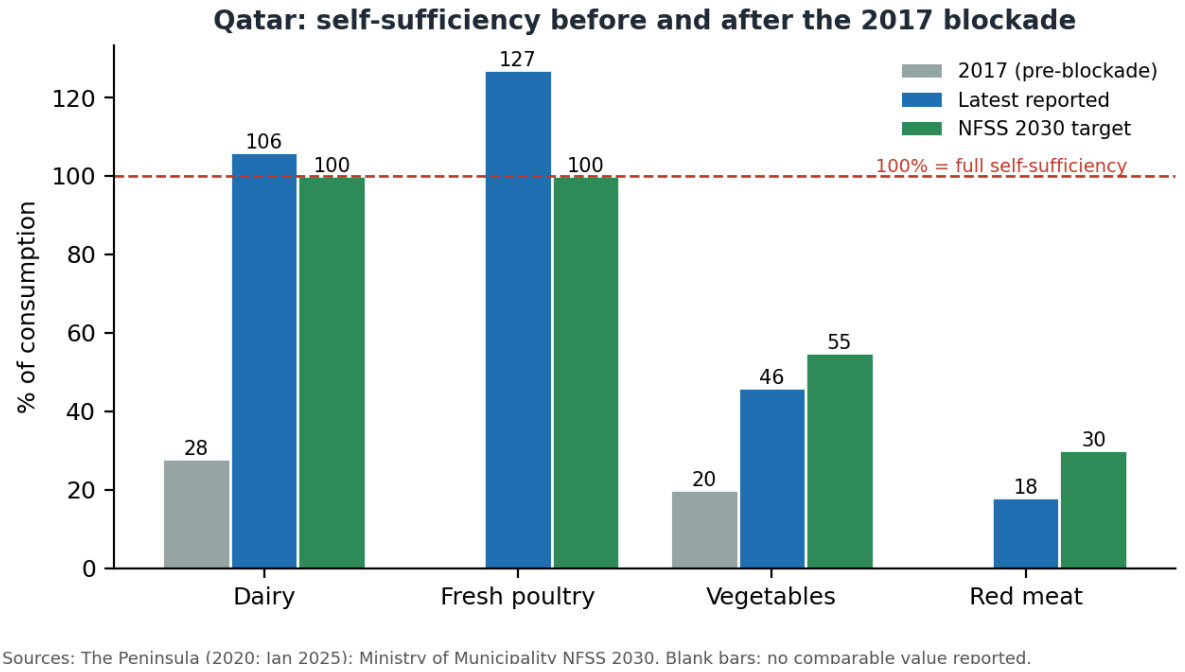
1. **International trade and logistics:** diversifying suppliers and routes.
2. **Domestic self-sufficiency:** concentrated in perishable, high-value products where freshness and short supply chains matter (dairy, fresh poultry, eggs, vegetables, fish).
3. **Strategic reserves:** covering several months of key staples, including grains, edible oils, sugar and frozen proteins, held in new storage at Hamad Port.
4. **Domestic markets:** regulation, price monitoring and waste reduction.

5.4 Outcomes

By 2020 the reported results were striking. Dairy self-sufficiency had risen from about 28% in 2017 to 106%, and fresh poultry production stood at about 127% of consumption (The Peninsula, 2020). Vegetable self-sufficiency rose from about 20% in 2017 to 46% in 2022, supported by subsidised greenhouses and hydroponics, as well as more cultivated farms. Red meat remained around 18%.

The NFSS 2030, adopted after the first strategy expired, sets the following targets (The Peninsula, 2025):

- vegetables: 55%;
- red meat: 30%;
- fish: 80%;
- dairy and fresh chicken: maintained at 100%.



Sources: The Peninsula (2020; Jan 2025); Ministry of Municipality NFSS 2030. Blank bars: no comparable value reported.

Figure 2. Self-sufficiency in key food groups in Qatar before the 2017 blockade, the latest reported values, and the NFSS 2030 targets. Fresh poultry and red meat have no comparable reported 2017 baseline.

6. Costs, trade-offs and limits

The post-blockade gains in dairy and poultry are real but come with three caveats.

5. **Feed and input dependence.** Cattle and broilers in Qatar eat imported grain, soy and alfalfa. Self-sufficiency in milk therefore shifts dependence from finished products to feed. In a severe shipping disruption, livestock systems need feed reserves as much as consumers need food reserves.
6. **Water and energy.** Almost all of Qatar's municipal water comes from gas-fired thermal and membrane desalination. Groundwater used for farming is largely non-renewable and increasingly saline. Climate-controlled dairy barns and greenhouses are energy-intensive, so the water–energy–food nexus is central to the strategy's sustainability (Karanisa et al., 2021).
7. **Economic efficiency.** Several product lines rely on subsidies, purchase guarantees and protection from cheaper imports. These are justified in strategic terms but impose costs on consumers and the treasury.

Overseas investment, through Hassad and others, has been reoriented towards supply-chain partnerships rather than ownership of farmland.

Table 1. Phases of Qatari food-security policy

Phase	Years	Trigger	Strategy	Key result
Wealth-based access	1975–2007	Oil and gas revenues	Imports via GCC neighbours, price controls	High access; >90% import dependence
Strategic planning	2008–2016	Global food price crisis	QNFSP; Hassad Food overseas investment	Institutions and data; limited production change
Blockade response	2017–2023	Land border closure	NFSS 2018–2023;	Dairy >100%;

			Hamad Port; dairy and poultry build-out; reserves	poultry ~127%; vegetables 46%
Consolidation	2024–2030	Strategy renewal; Hormuz risk	NFSS 2030 targets; technology-led horticulture; aquaculture	Targets: vegetables 55%, red meat 30%, fish 80%

7. Stability: the Hormuz test of 2026

Diversified sea routes protected Qatar in 2017, but all of them pass through the Strait of Hormuz. When shipping through the strait collapsed in 2026, FAO estimated that 100% of Qatar's food imports were exposed. This placed Qatar, Bahrain, Kuwait and Oman's Gulf-coast trade in the highest-risk group (FAO Regional Office for the Near East and North Africa, 2026).

The strategic reserves and domestic perishable production built after 2017 provided a buffer. The episode showed that resilience in a Gulf micro-state requires all three of the following:

- reserves sized to plausible chokepoint closures;
- feed stocks for domestic livestock;
- contingency air-freight and alternative-port arrangements, for example through Omani ports outside the strait.

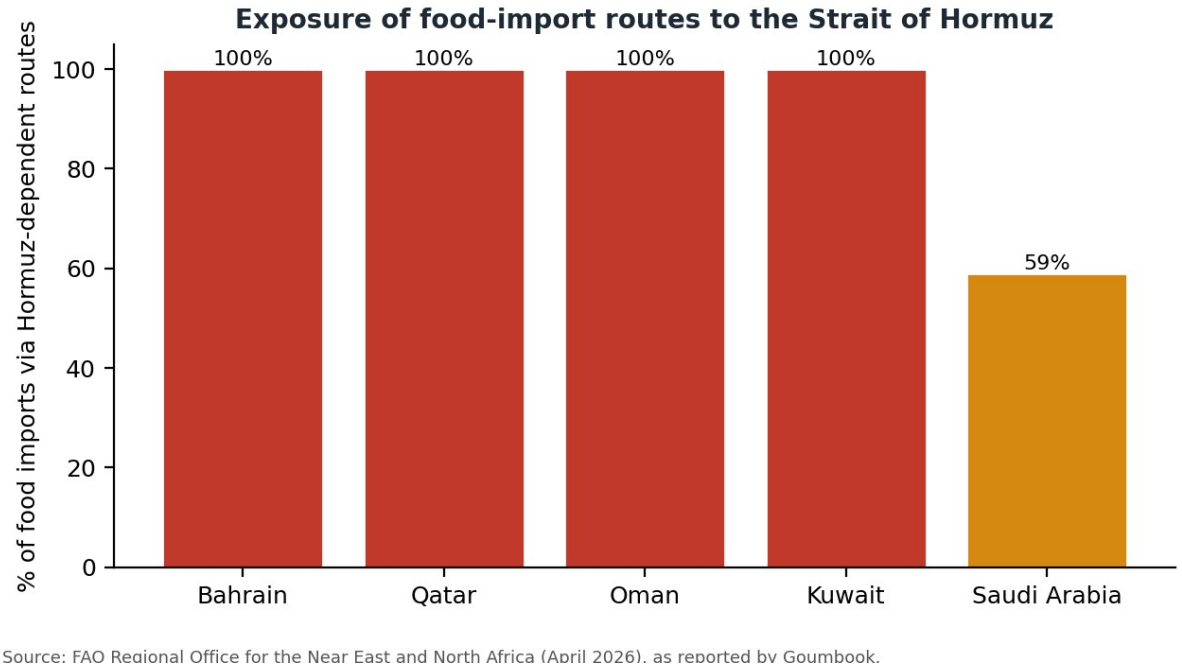
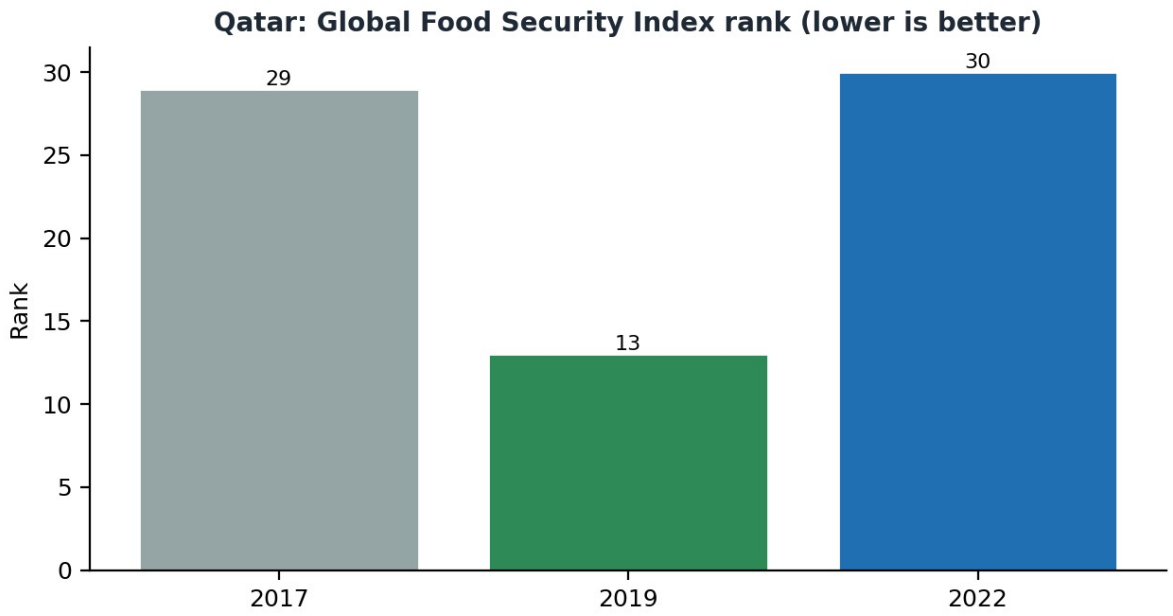


Figure 3. Exposure of GCC food imports to routes through the Strait of Hormuz during the 2026 disruption.

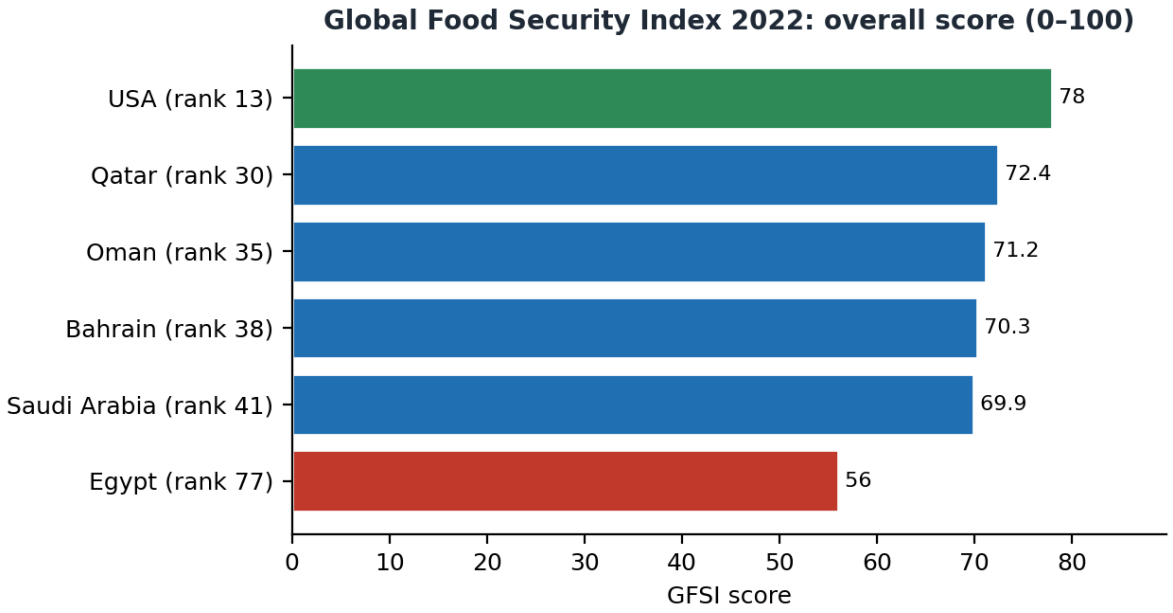
8. International comparison

Qatar's rank in the GFSI rose from 29th in 2017 to 13th in 2019, the year the post-blockade measures were consolidated. In the 2022 edition, which used a revised methodology giving more weight to sustainability and natural resources, Qatar ranked 30th with a score of 72.4. Its scores for affordability and quality remain high. Its scores for natural resources and resilience are low, reflecting water scarcity and climate exposure.



Sources: The Peninsula (2017, 2019 editions); Economist Impact (2022). Methodology revised in 2022.

Figure 4. Qatar's GFSI rank in 2017, 2019 and 2022. The 2022 index used a revised methodology, so ranks are not strictly comparable across editions.



Source: Economist Impact, Global Food Security Index 2022 (113 countries).

Figure 5. Global Food Security Index 2022 overall scores for the six countries in this series.

9. Conclusions

Qatar's fifty-year trajectory shows how a geopolitical shock can compress decades of policy change into a few years. The 2017 blockade converted food security from an economic question into a national-security priority. Qatar achieved rapid self-sufficiency in perishable products and built a diversified, port-centred logistics system and substantial strategic reserves.

The remaining vulnerabilities are structural:

- dependence on imported feed and grains;
- energy-intensive water supply;
- a single maritime chokepoint.

Future priorities are:

- feed and staple reserves sized to chokepoint scenarios;
- renewable-powered desalination and treated-wastewater use in agriculture;
- research into heat- and salt-tolerant production systems;
- partnerships with ports outside the Gulf.

Declarations

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Data availability: No new primary data were generated. All values shown in figures and tables are taken from the cited sources. Satellite base maps use the NASA Blue Marble composite (public domain) rendered with the Basemap library.

Use of generative AI: The author used Claude (Anthropic) to assist with literature searching, drafting and figure preparation. The author reviewed and edited all content, verified the references and takes full responsibility for the published article.

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