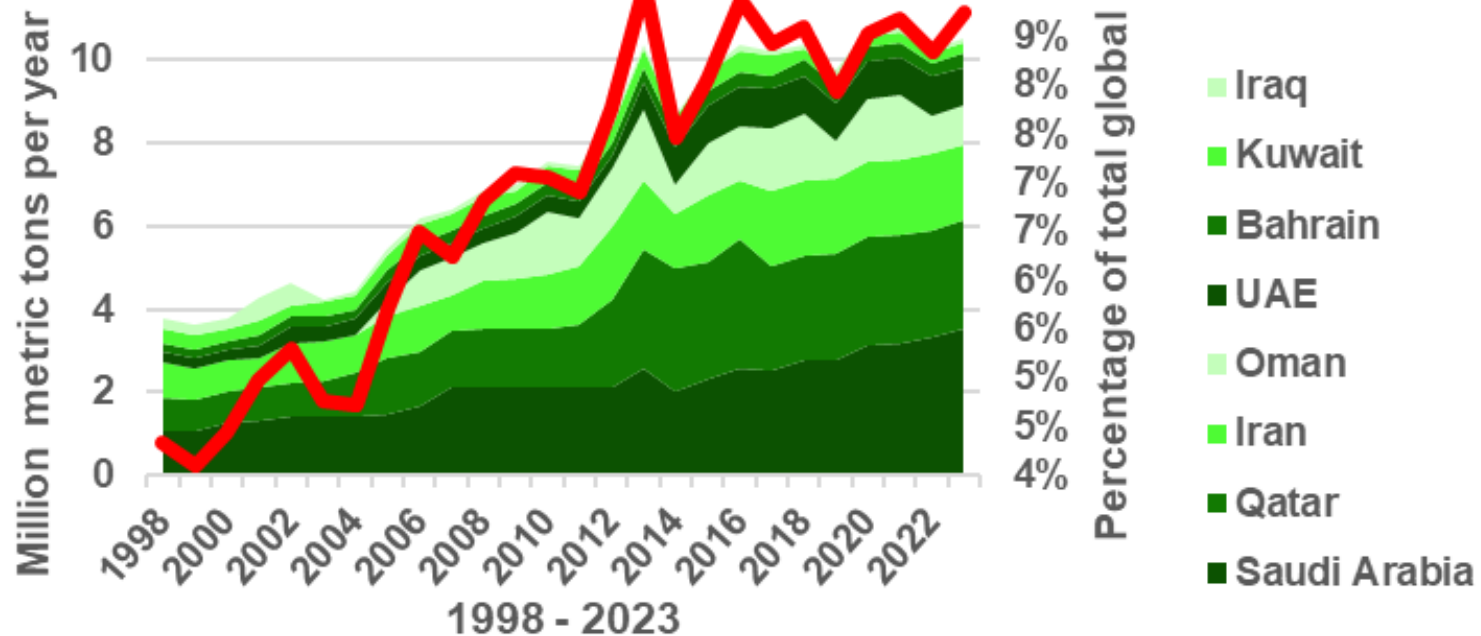


Chart of the Week #2026-12

Hormuz Closure and Gulf Nitrogen-based Fertilizer

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Washington, DC

Gulf Nations' Nitrogen Fertilizer Production & Percent of Total Global



Source: Our World in Data

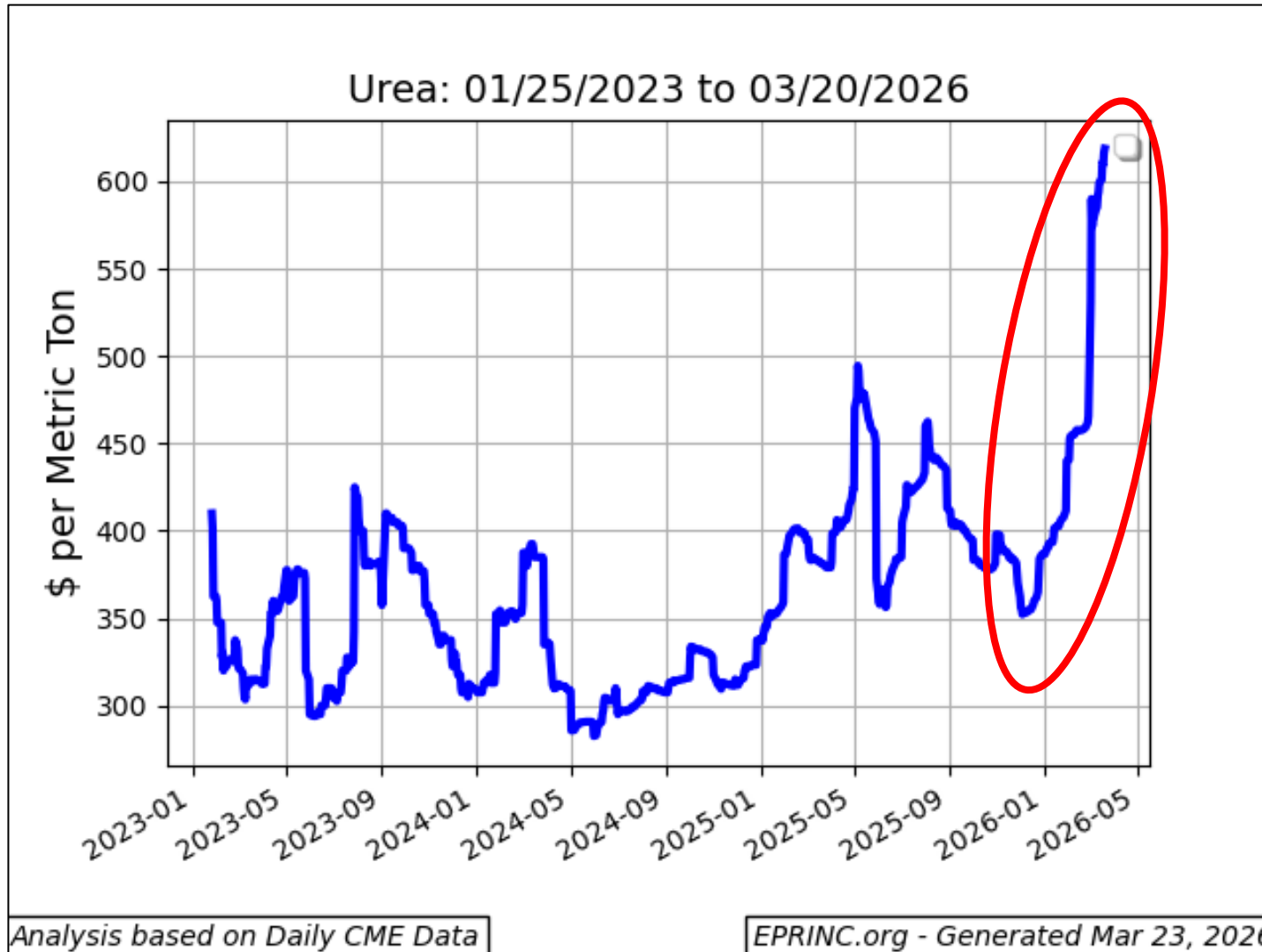
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The Israel/U.S.-Iran War is now in its fourth week. Restoration of crude oil and LNG trade flows dominates discussions on how to open the Hormuz Strait. But discussion of Gulf fertilizer exports has only begun.

Anhydrous ammonia is the foundation for Urea and other related nitrogen-based fertilizers; nitrogen-based fertilizers rely on methane (CH₄) to produce NH₃ (<https://en.wikipedia.org/wiki/Fertilizer#Production>).

The seven countries (Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and UAE) along with Oman produced over 10 million metric tons (mmts) of ammonia-based fertilizers in 2023 (8.3% of total global production), up from 3.8 mmts in 1998, or 4.3% of the world's total.

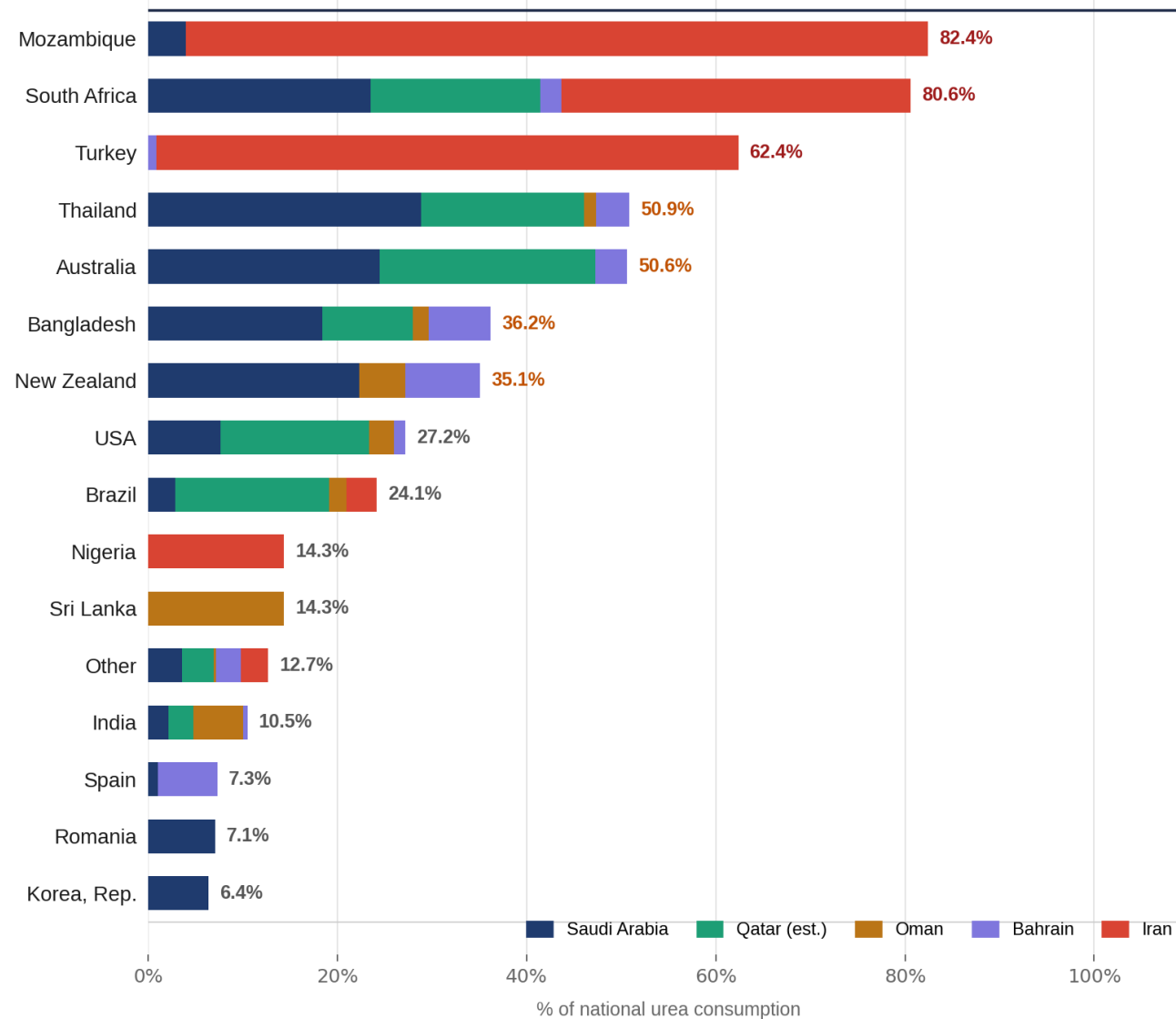
All of this is now at a standstill without any alternative routes available.



In response to the interruption of Gulf fertilizer production and exports, Urea benchmark prices jumped from \$350/mt to over \$600/mt.

Gulf urea import exposure by destination country, 2022

% of total national urea consumption sourced from Hormuz-affected Gulf producers



Sources: UN Comtrade / WITS HS 310210 (2022); IndexBox; IMARC. Qatar figures estimated from importer-side bilateral data.

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As a result of the Strait of Hormuz crisis, several countries are at risk of a greater than 33% disruption to their urea supply. Particularly exposed are African and southeast Asian countries, which have more difficulty rebalancing or finding other nitrogen-based fertilizers.

Relevant and not displayed in this chart is the population density and per capita GDP of these countries. Higher density and less wealthy countries are more likely to experience famine and mass migration as a result of high food prices.

2022 Urea Import Exposure to Hormuz Disruption

Thousand metric tonnes (000 mt) | Countries ranked by Gulf share of consumption within region

	Total cons.	Saudi Arabia	Qatar (est.)	Oman	Bahrain	Iran	Total Gulf	Gulf share
Total	75,272	4,420	5,433	2,491	917	3,540	16,801	22.3%
Africa								
Mozambique	500	20	—	—	—	392	412	82.4%
South Africa	1,500	352	270	—	33	554	1,209	80.6%
Nigeria	2,000	—	—	—	—	287	287	14.3%
Americas								
USA	9,800	747	1,539	260	120	—	2,666	27.2%
Brazil	8,000	227	1,300	150	—	252	1,929	24.1%
Asia & Oceania								
Thailand	2,300	664	395	30	81	—	1,170	50.9%
Australia	2,822	691	642	—	95	—	1,428	50.6%
Bangladesh	2,600	478	250	43	170	—	941	36.2%
New Zealand	1,200	268	—	58	95	—	421	35.1%
Sri Lanka	300	—	—	43	—	—	43	14.3%
India	36,000	769	937	1,900	171	—	3,777	10.5%
Korea, Rep.	800	51	—	—	—	—	51	6.4%
Europe								
Turkey	3,200	—	—	—	28	1,968	1,996	62.4%
Spain	700	7	—	—	44	—	51	7.3%
Romania	550	39	—	—	—	—	39	7.1%
Other								
Other	3,000	107	100	7	80	87	381	12.7%

Sources: UN Comtrade / WITS HS 310210 (2022); IndexBox; IMARC; GPCA (Qatar est.)

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- - **The Israel/U.S.-Iran war has halted all Gulf fertilizer exports, and unlike oil, there is no immediate remedy or reserve**
- **The Gulf produces 8.7% of global fertilizer and accounts for 33-50% of global urea trade; benchmark urea prices have risen more than 70% in four weeks, approaching the 2022 post-Ukraine spike**
- **The U.S. and Brazil import a similar portion of urea from gulf states, but are in quite different situations.**
 - **The US produces 94% of its nitrogen-based fertilizers with the balance imported. For urea specifically, the US imports around a quarter from the gulf states.**
 - **Brazil is far more reliant on fertilizer imports (over 80% of its needs are imported) and therefore considerably vulnerable. By disrupting global agricultural cycles, food security is threatened leading to malnourishment and social unrest.**
- **The Haber-Bosch process already supports the survival of roughly 4 billion people; a prolonged Hormuz closure puts that foundation at risk in a way the energy headlines have not captured**
- **Exposure is highest in sub-Saharan Africa (~48% regional dependence) and key importers like Mozambique (82%), South Africa (81%), and Turkey (62%); even the U.S., which produces 94% of its nitrogen fertilizer domestically, imports over a quarter of its urea from Gulf suppliers during the critical spring planting window**
- **Fertilizer is not a substitutable commodity on short timelines — reduced application this season means lower yields, reduced caloric output, and downstream food insecurity in the regions least equipped to absorb the shock**

This slide deck is available at: <https://eprinc.org/chart-of-the-week/>

For more information on these charts, please contact Max Pyziur (maxp@eprinc.org) or Matthew Sawoski (matthews@eprinc.org).