

Sta 199 / Fall 2026

Global Agriculture, Armed Conflict, & Food Prices

A 50-year look at agriculture, conflict, and international markets (1975–2024)

Team Awesome

Can war reshape food systems beyond the battlefield?

War may disrupt farming and trade. We compare global trends with selected country-level cases.

01 Global Lens

How did crop yields and international food prices change alongside yearly conflict activity, 1975–2024?

02 Country Lens

How did what production, harvested area, and yield vary across selected conflict periods?

Why Two Scales?

Food production is local; food markets are connected.

Global averages can hide local changes. We describe patterns, not causal effects.

Can war reshape food systems beyond the battlefield?

01

FAOSTAT

Agricultural production

Wheat, maize, and rice
Annual output + harvested land
Yield = production/harvested area

FAO Crops & Livestock Products

02

UCDP / PRIO

State-based conflict

Government-involved armed conflicts ≥ 25 battle deaths in a year
Unique conflicts counted annually

Armed Conflict Dataset v26.1

03

FAO FOOD PRICE INDEX

International food markets

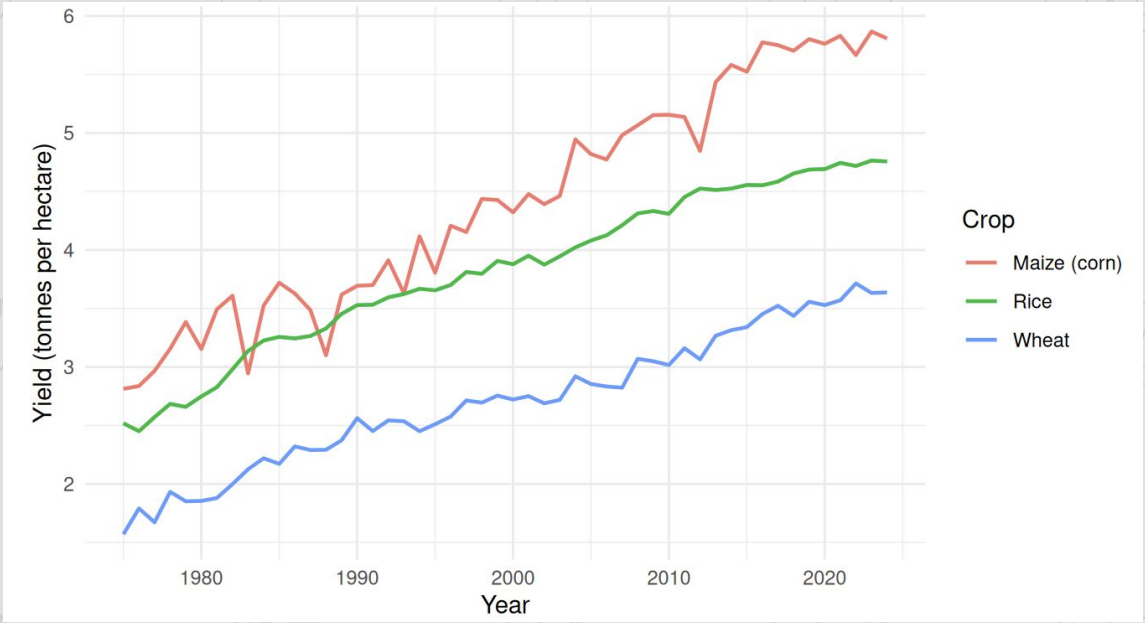
Real (price-adjusted) annual index
Five traded commodity groups
International prices

Historical annual series

1975–2024 CLEAN + MATCH YEARS ⟹ GLOBAL TRENDS ⟹ FOUR COUNTRY CASES

Global yields rose across all three crops

Average tonnes produced per harvested hectare, by crop (1975–2024)



+132 %
Wheat yield

+106 %
Maize yield

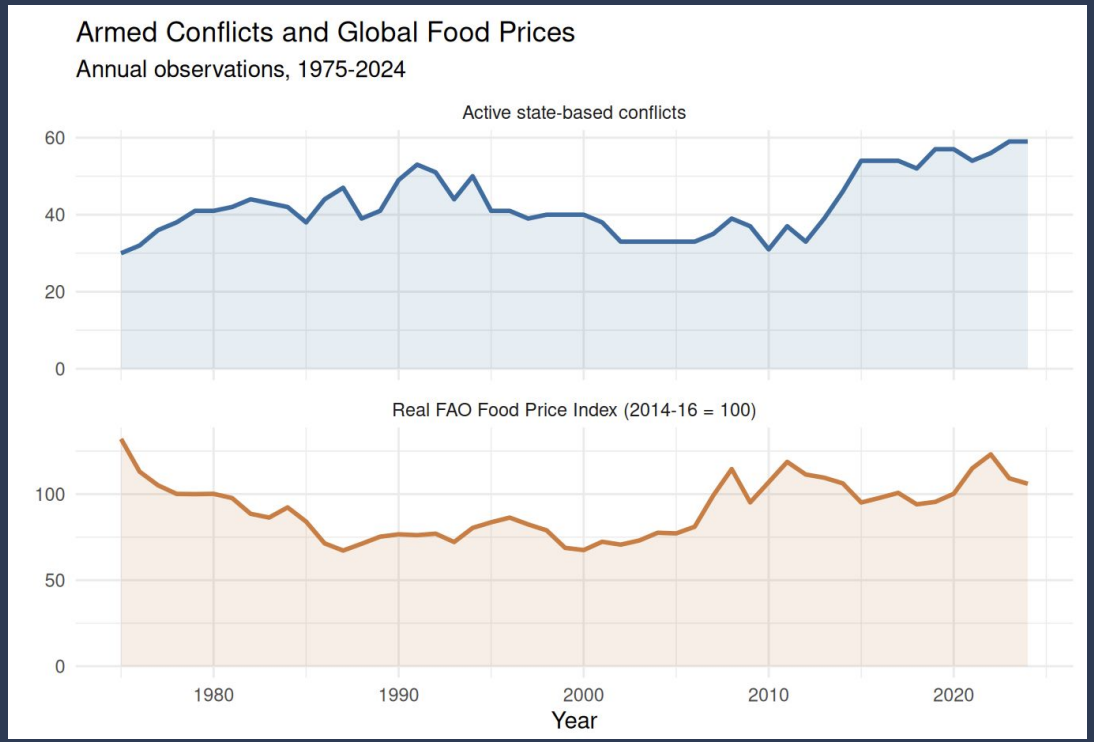
+89 %
Rice yield

Yields increased per hectare. Not necessarily because of conflict or more land being harvested.

Source: FAOSTAT; calculated as global production / global harvested area

Conflict counts did not track food prices consistently

The annual number of conflicts and real international food prices followed different paths.



Source: UCDP/PRIO v26.1; FAO historical real Food Price Index (2014–16 = 100)

r ≈ +0.09

Little Linear Association

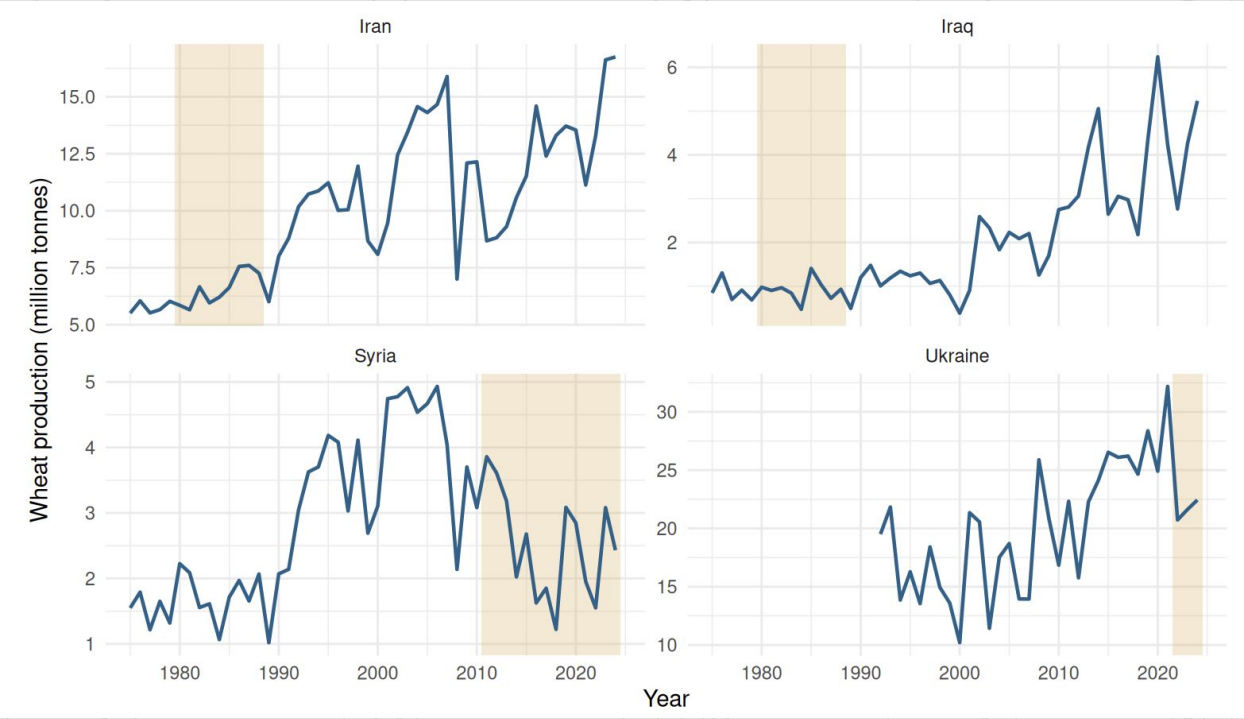
30 → 59

Active conflicts
1975 → 2024

Conflict counts omit severity and trade exposure

Wheat production timelines show more local variation than global results

Selected country cases with conflict periods shaded



Despite major conflicts, wheat production followed different trends, declining in Syria and Ukraine but remaining more variable in Iran and Iraq

Main Takeaways

Syria & Ukraine

Wheat production declined by 33.7% and 20.8%, respectively

Iran & Iraq

Wheat production increased modestly during selected conflict periods

Ukraine's key contrast

Production ↓ 20.8% despite yield per hectare ↑ 8.0%

Source: FAOSTAT; UCDP/PRIO used to identify selected conflicts. Unequal windows; not causal estimates

Three Takeaways

01 Global productivity rose

Wheat, maize, and rice yields increased substantially from 1975–2024, reflecting long-term improvements in agricultural productivity despite annual fluctuations.

02 Global conflict and food prices show weak association

Annual conflict counts showed little correlation with real food prices ($r \approx 0.09$), suggesting that conflict severity and location may matter more than frequency alone.

03 Local Agricultural Outcomes Diverged

Wheat production declined in Syria and Ukraine but increased in Iran and Iraq during selected conflict periods. In Ukraine, reduced harvested area coincided with higher yield per hectare.

LIMIT: These are historical comparisons – not estimates of war-caused changes or global spillovers

NEXT STEP · Add bilateral trade, conflict severity, and matched country comparisons