The Global Food Security Crisis: Exploring the Evidence Base and Lessons from the Past to Strengthen Agricultural, Nutrition, and Food Systems in the Face of Shocks

184th BIFAD Public Meeting

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FEED THE FUTURE
The U.S. Government's Global Hunger & Food Security Initiative

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Overview of Past and Current Global Food Security Crises

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Overview of Past and Current Global Food Security Crises

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BIFAD 184th Public Meeting Monday, 23rd May 2022

The Photo Today

We are not on track to ending hunger, food insecurity and malnutrition – major drivers and underlying factors are challenging us

COVID-19 pandemic

Economic slowdowns and downturns

Climate variability and extremes

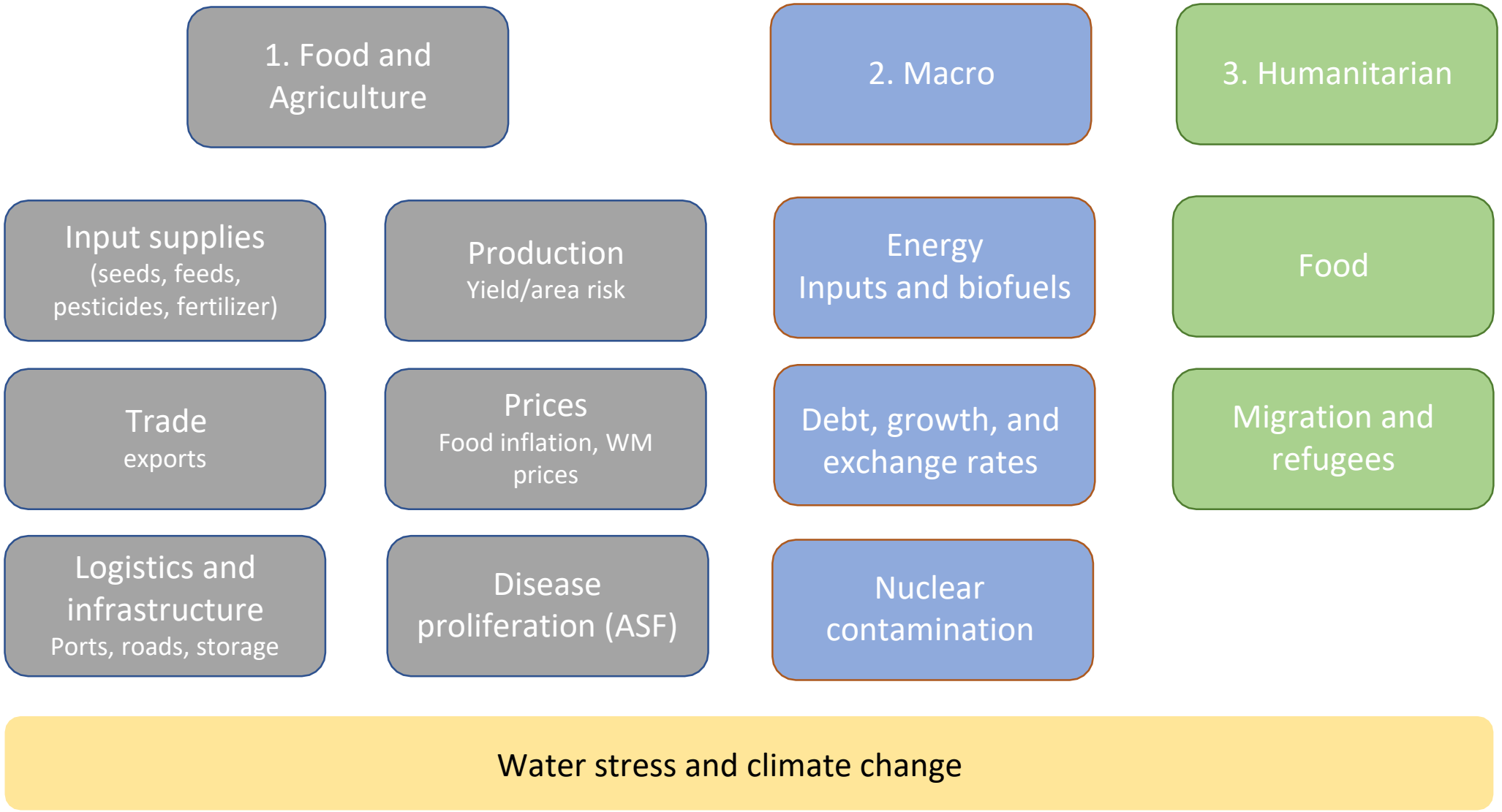
Conflict/ War

Cost and affordability of healthy diets

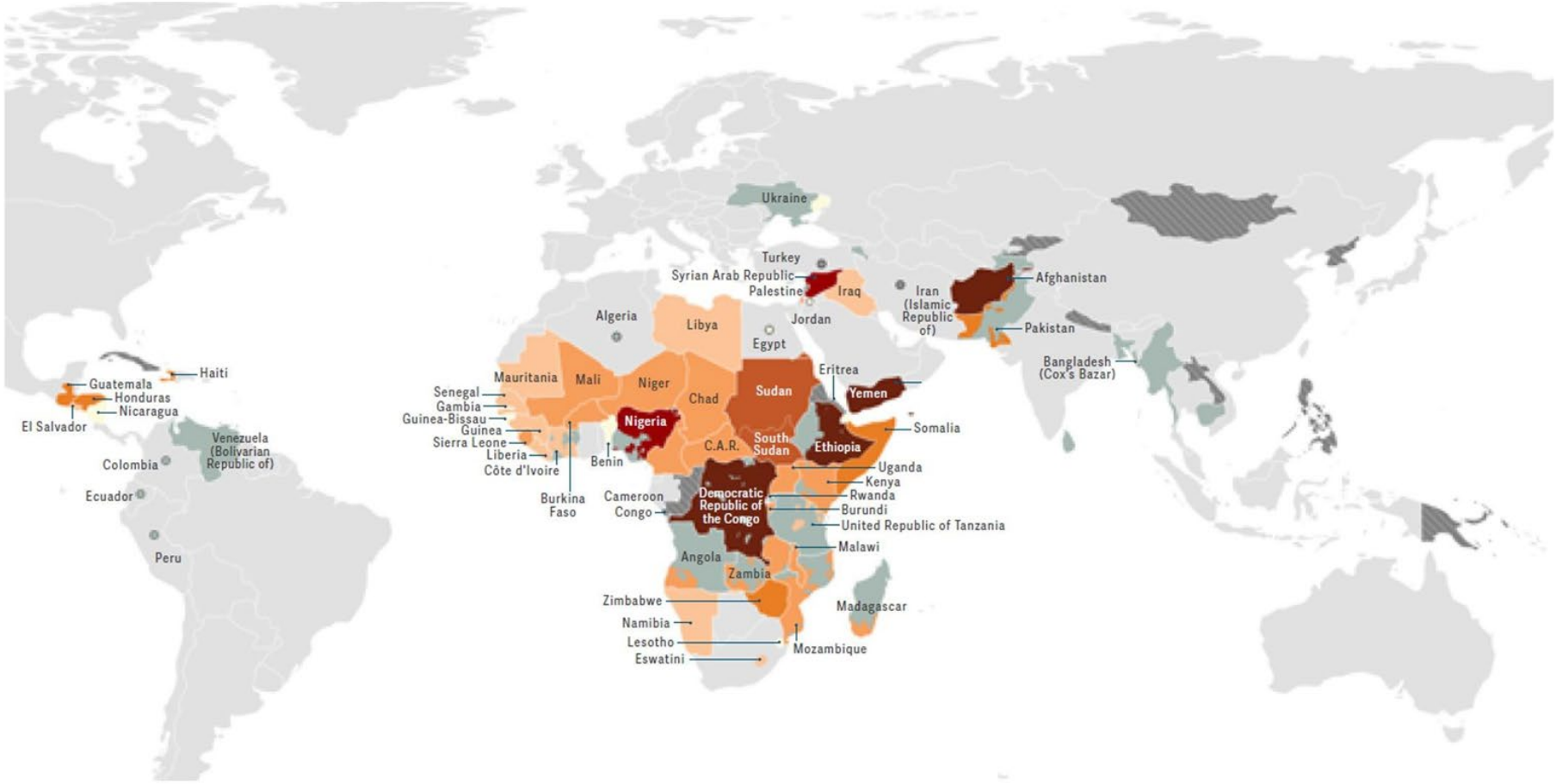
Photo credit: FAO

UNDERLYING CAUSES OF POVERTY & INEQUALITY

The basic risks for the agrifood systems



Number of people in Crisis or worse (IPC/CH Phase 3 or above) or equivalent in 53 countries/ territories in 2021



Numbers of people (ranges) in Crisis or worse (IPC/CH Phase 3 or above) or equivalent

- <0.5 million
- 0.5–0.99 million
- 1–2.99 million
- 3–4.99 million
- 5–9.99 million
- 10–14.99 million
- ≥15 million
- Country not selected for analysis
- Insufficient evidence/population not analysed
- Data gap
- ○ Indicates migrants/refugee populations (colour coding as shown in this key)

The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. Final boundary between the Republic of Sudan and the Republic of South Sudan has not yet been determined. Final status of the Abyei area is not yet determined.

In the Democratic Republic of the Congo, the IPC analysis covered 170 areas (including 35 urban areas) in 2020 compared to 179 areas in 2021 (including 48 urban areas). In terms of population coverage, in 2020 the IPC covered 65 percent of the total country population while in 2021 it covered 91 percent.

Source: FSIN, GRFC 2022.

Food security and nutrition indicators

Photo credit: FAO

Global hunger increased under the shadow of the COVID-19 pandemic

Up to 811 million people faced hunger in 2020 – as many as 161 million more than in 2019.

More than 650 million may still be facing hunger in 2030, including tens of millions linked to possible lasting effects of the pandemic.

The increase in moderate or severe food insecurity in 2020 equaled that of the previous five years combined.

The increased cost of healthy diets and high levels of income inequality put healthy diets further out of reach in Africa and in Latin America and the Caribbean.

Some progress has been made, but the effects of the pandemic on nutrition will cause setbacks.

Measuring one dimension of resilience – absorptive capacity: A set of indicators

SOFA 2021 measures the absorptive capacity of countries:

Primary production: Primary Production Flexibility Index (PPFI)

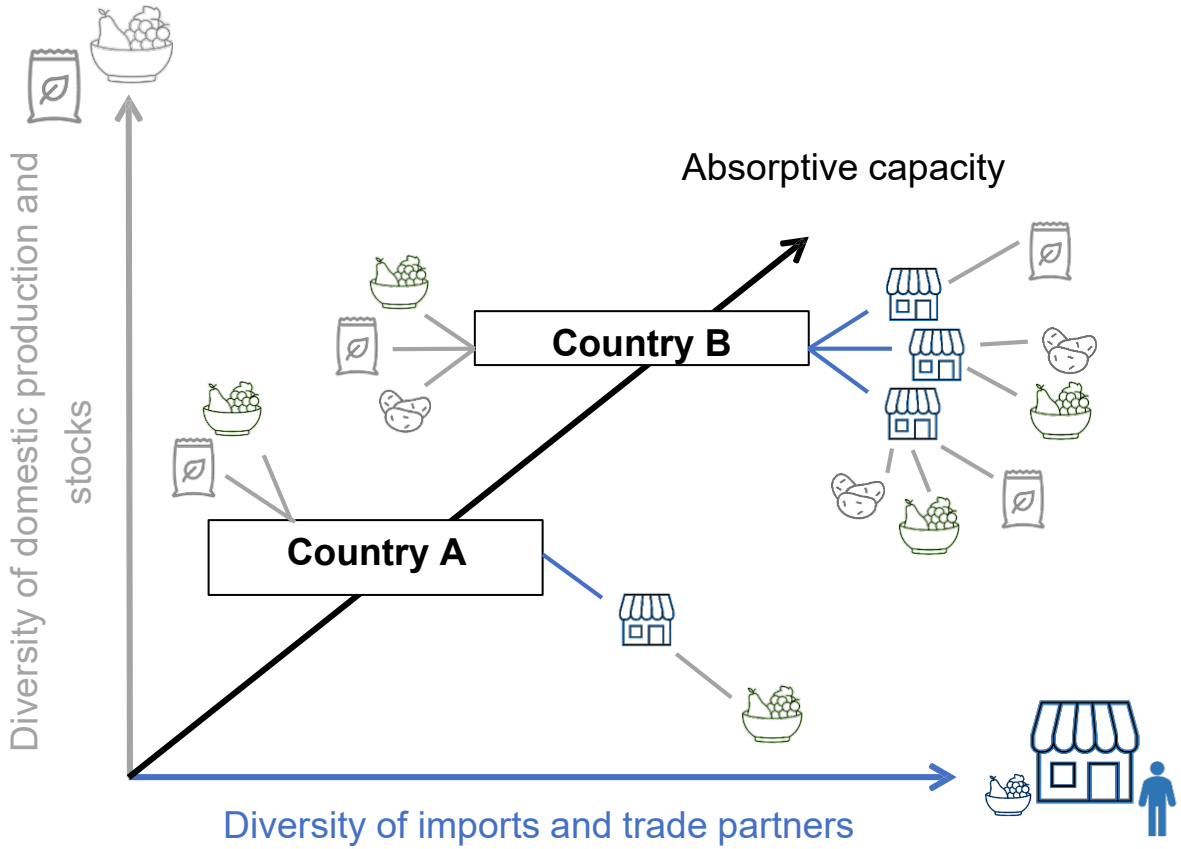
Food supply: Dietary Sourcing Flexibility Index (DSFI)

Transport networks

Economic access to healthy diets

The absorptive capacity of a country's food supply

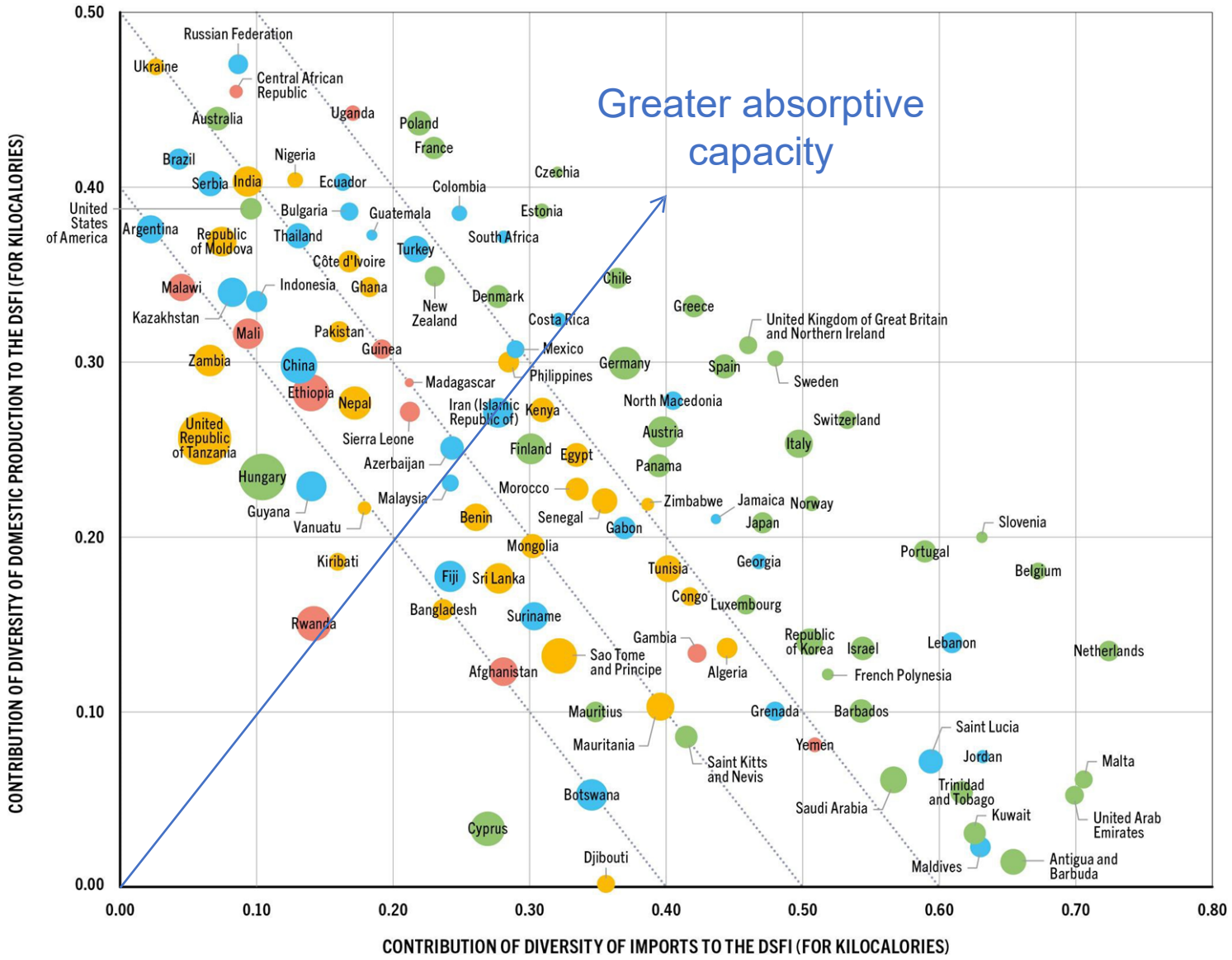
The absorptive capacity of countries' food supply depends on the diversity of domestic production and stocks, and of imports and trade partners.



Source: FAO

Dietary Sourcing Flexibility Index (DSFI), for kilocalories

- Countries diversify food sources in different ways
- Effectiveness of diversification does not depend much on country size or income level



High-income countries

Upper-middle-income countries

Lower-middle-income countries

Low-income countries

Source: FAO

The Past and the Present: Cereals

Concentrated market structure on commodity exports

Food Crises 2007-08 & 2011

MAIZE 84%

United States (53.0%)
Argentina (15.1%)
Brazil (6.3%)
France (6.0%)
India (3.5%)

WHEAT 63%

United States (22.9%)
France (12.4%)
Canada (12.0%)
Russian Federation (8.9%)
Argentina (6.7%)

RICE 95% (paddy)

United States (90.4%)
Paraguay (1.4%)
France (1.2%)
China (1.1%)
Brazil (0.9%)

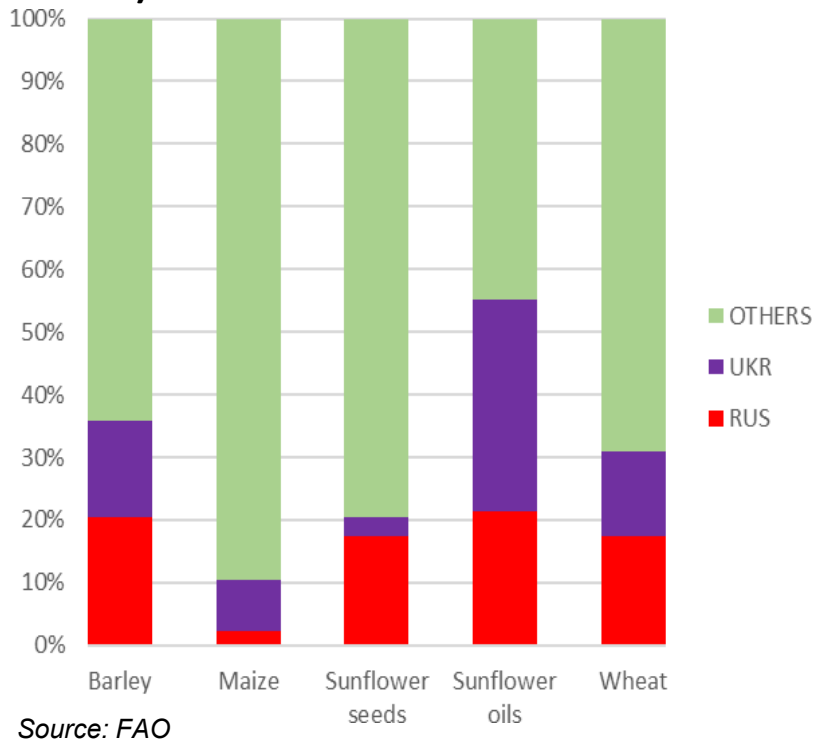
RICE 80% (broken)

Thailand (54.8%)
Pakistan (9.1%)
Brazil (7.3%)
United States (4.4%)
Belgium (4.0%)

Source: FAO (2011a).

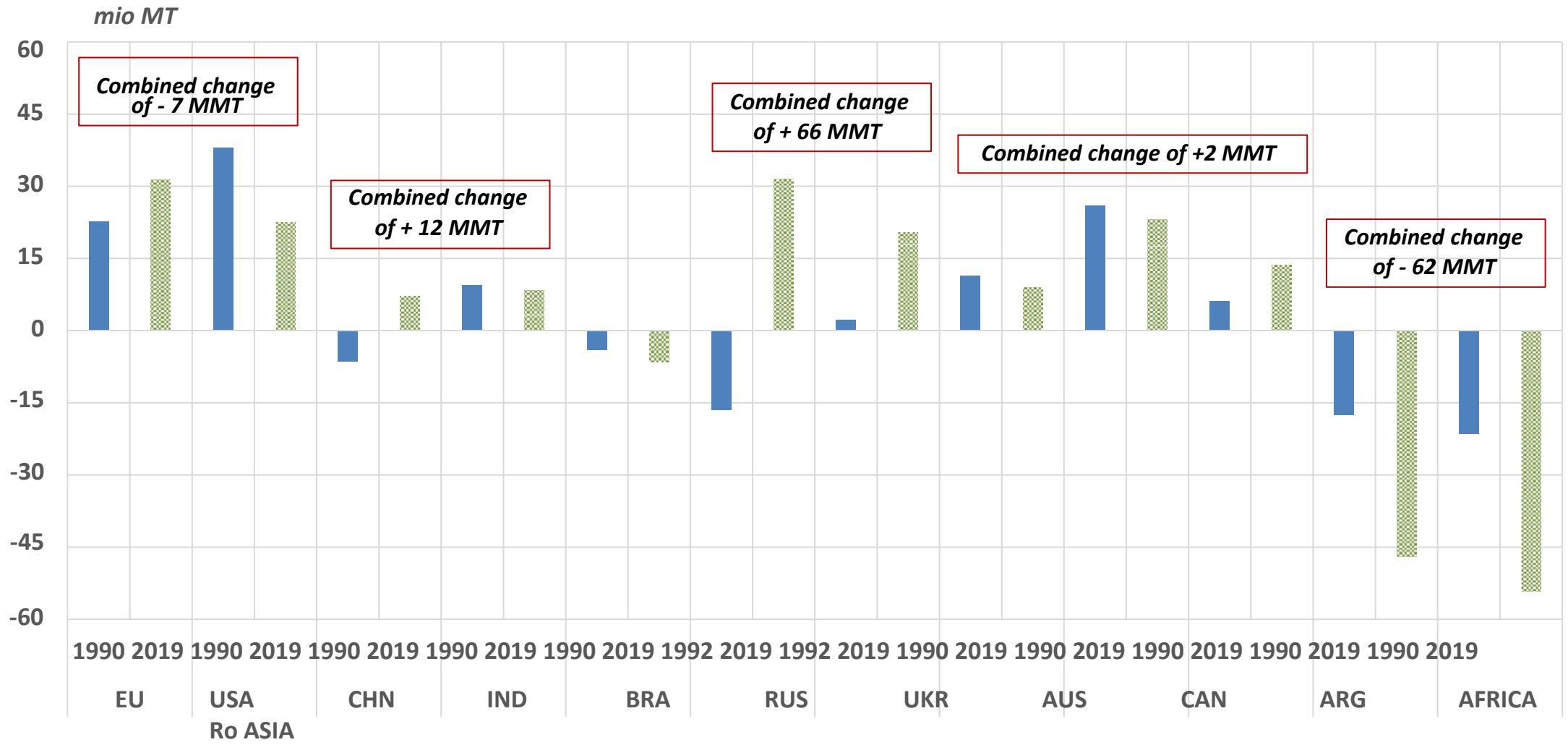
Today

Global market shares (quantities) of key agricultural commodities (percent, 2021)



Source: FAO

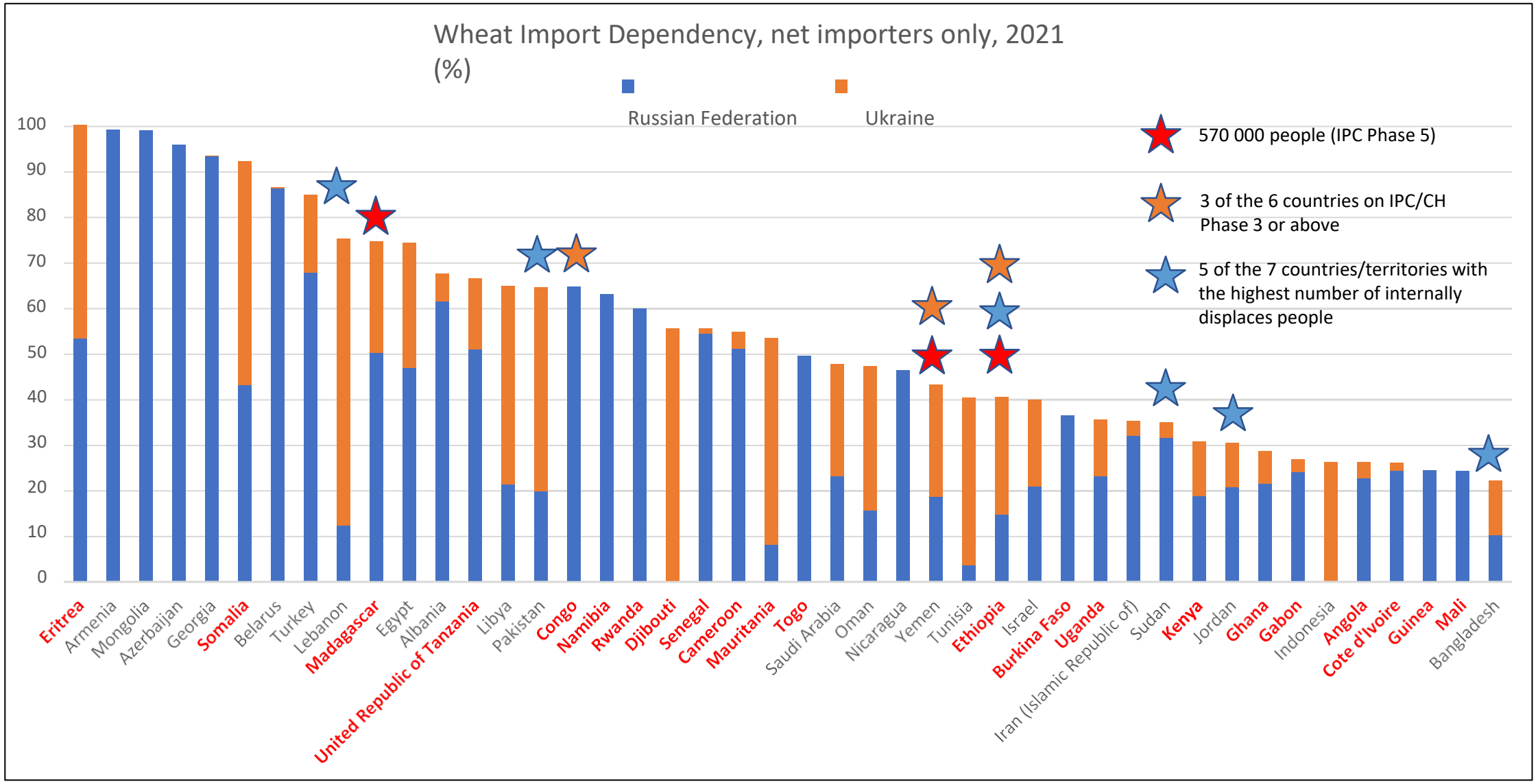
Evolution of food surplus/deficit gap for wheat



Source: DG AGRI based on FAOSTAT.

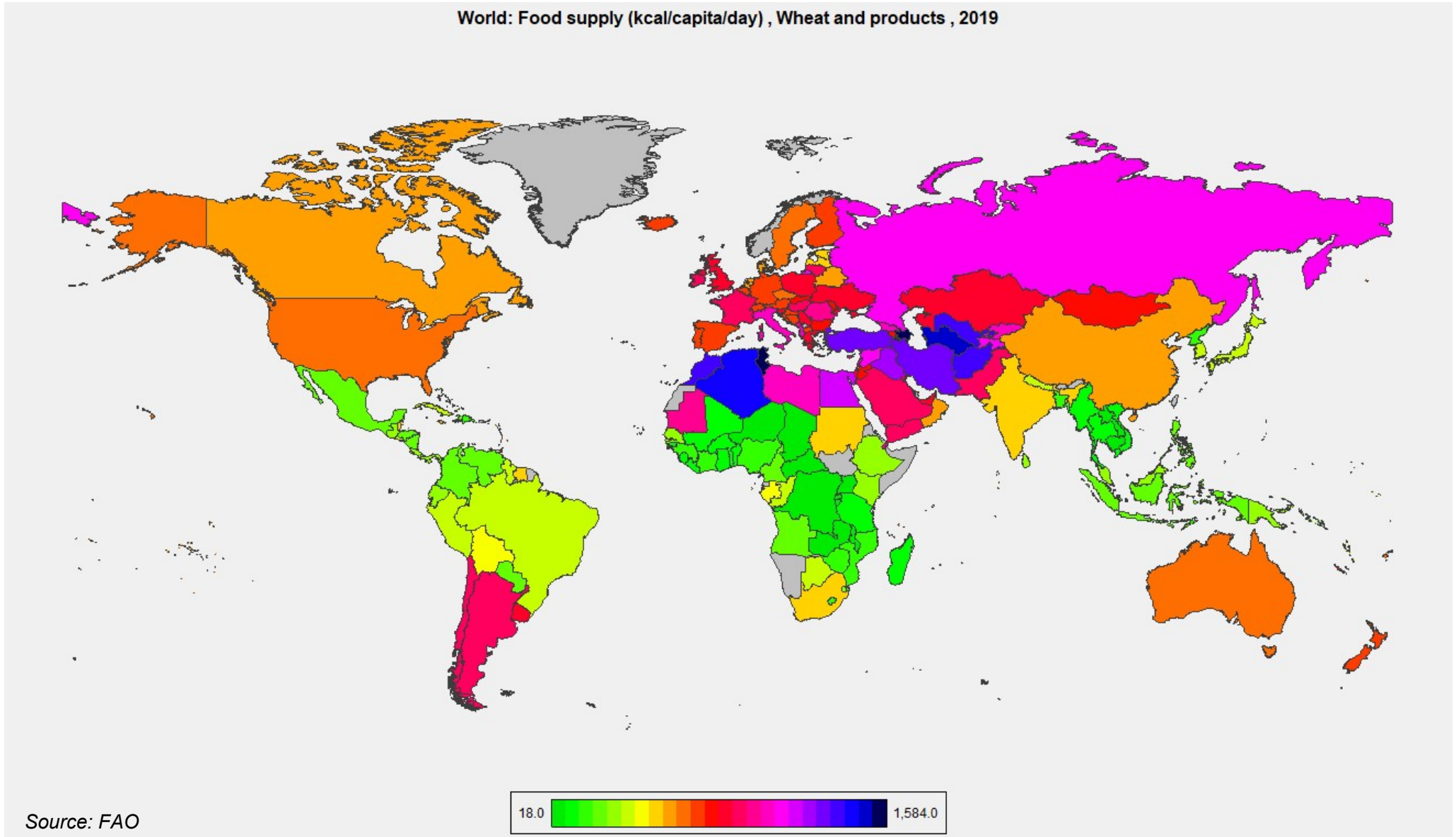
Some countries are heavily reliant on wheat imports from Ukraine and the Russian Federation

Countries in SSA are marked in red



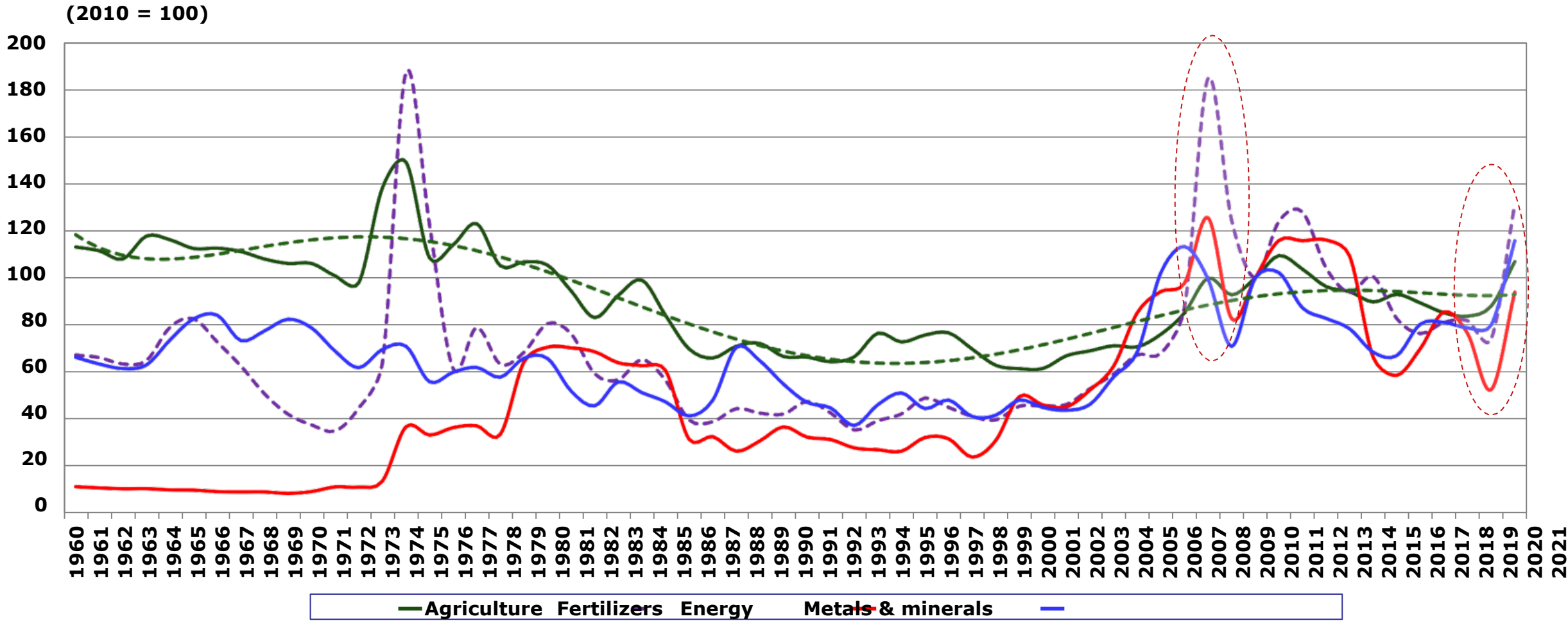
Source: FAO

Wheat is a staple food in North Africa, but NOT so important for most countries in sub-Saharan Africa



Source: FAO

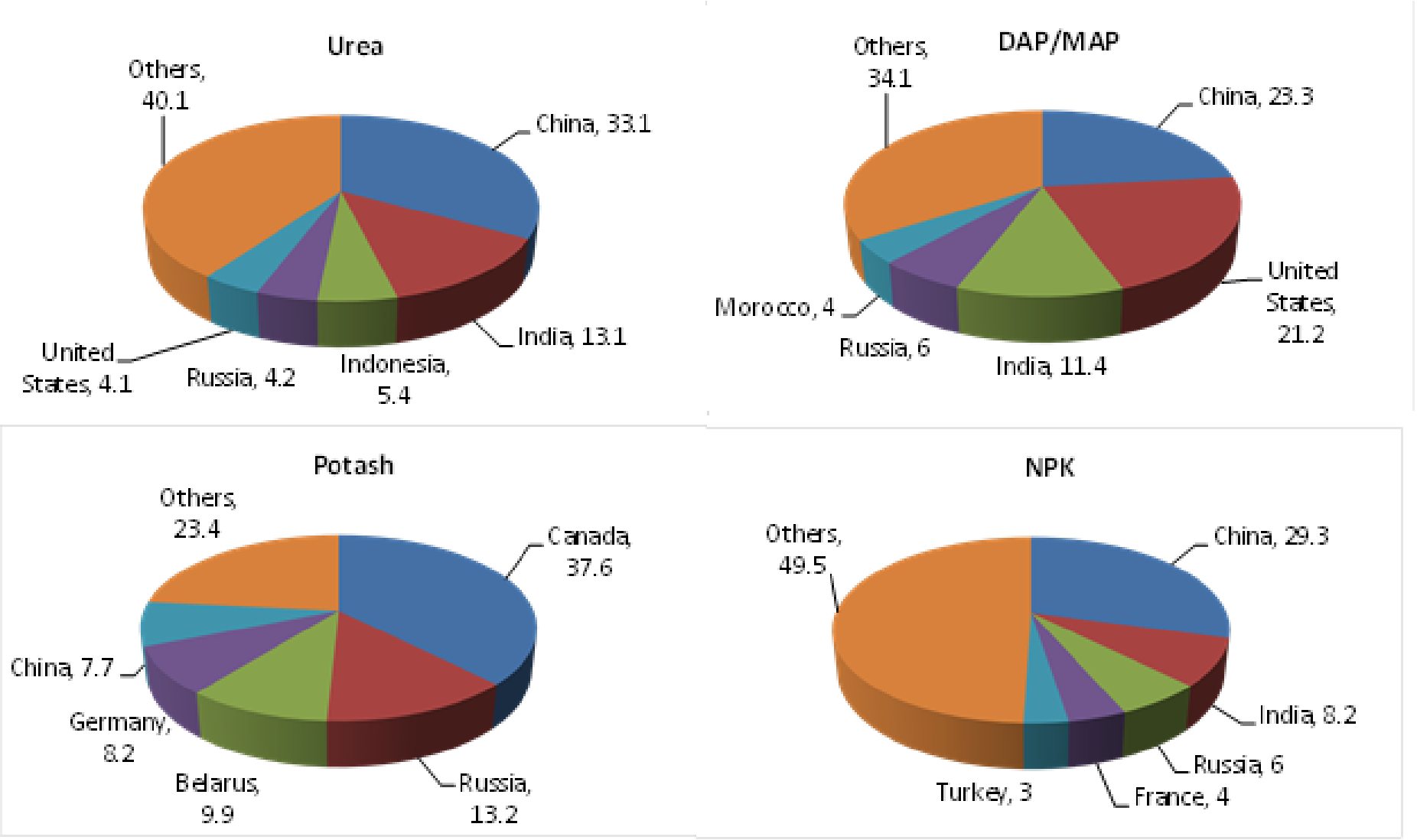
Commodity price waves (annual real price indices)



Source: World Bank.
Note: Dotted green line is best-fit agricultural price trend.

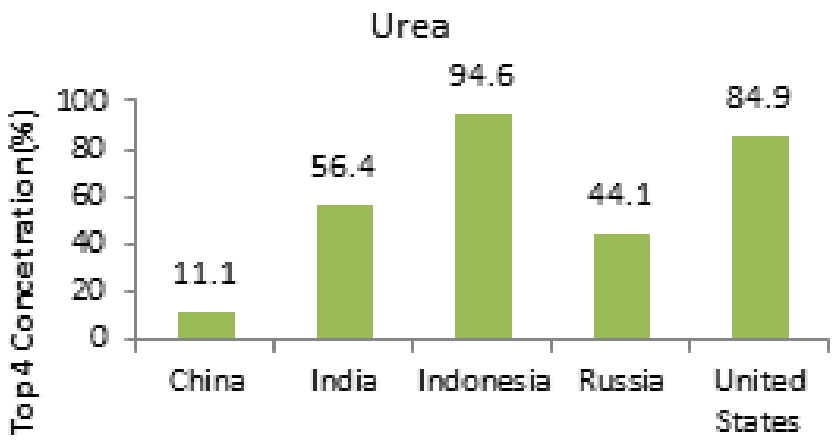
The Past and the Present: Fertilizers

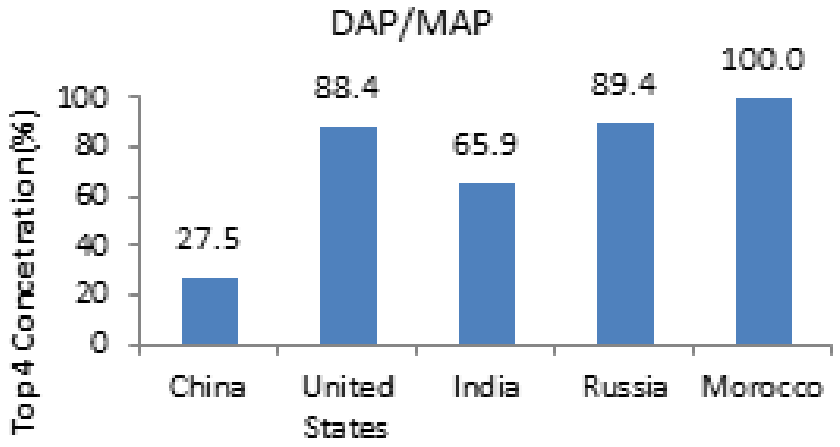
High concentration of world fertilizer production capacity by country

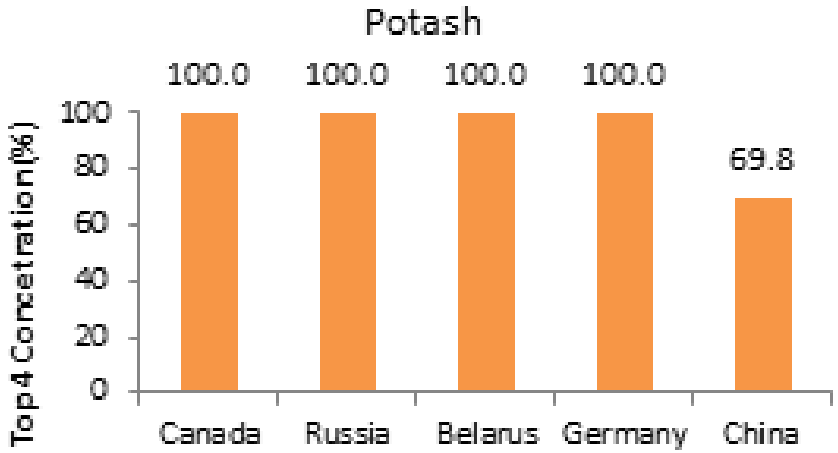


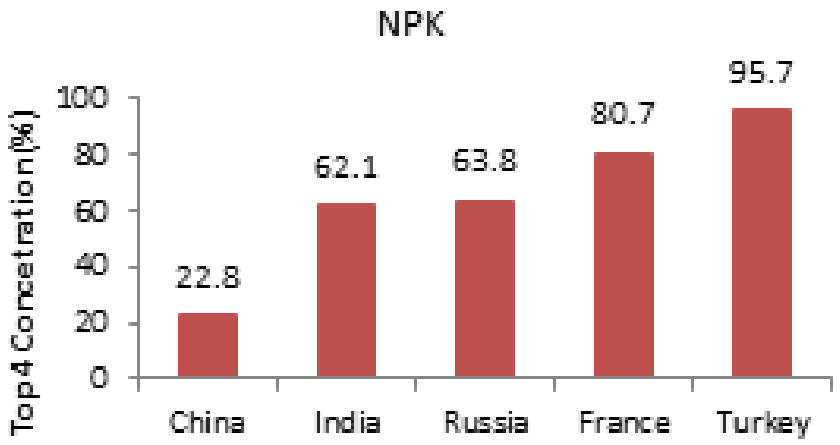
Note: Based on capacity of operative plants in 2008-09 according to IFDC Worldwide Fertilizer Capacity Listings by Plant.

High Concentration of world fertilizer production capacity in main producing countries



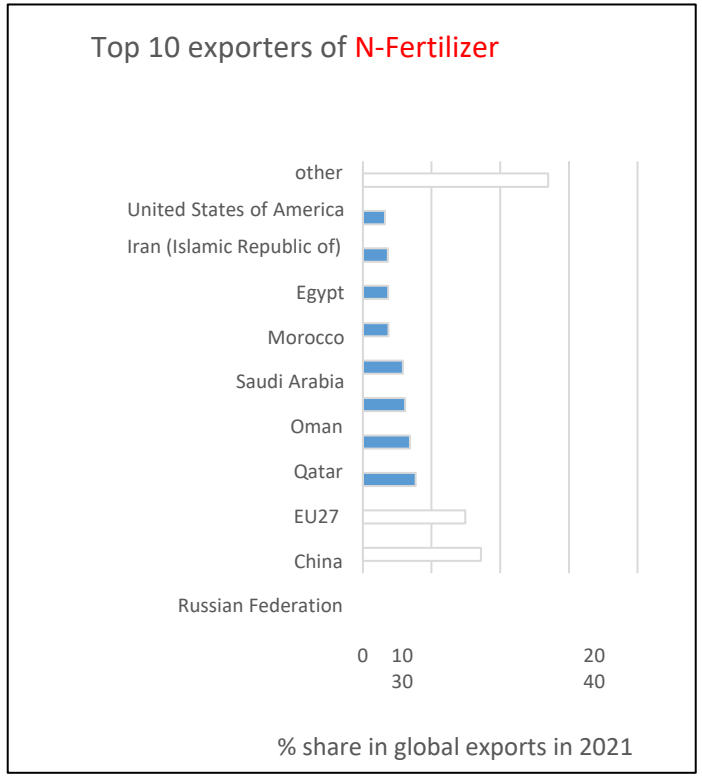


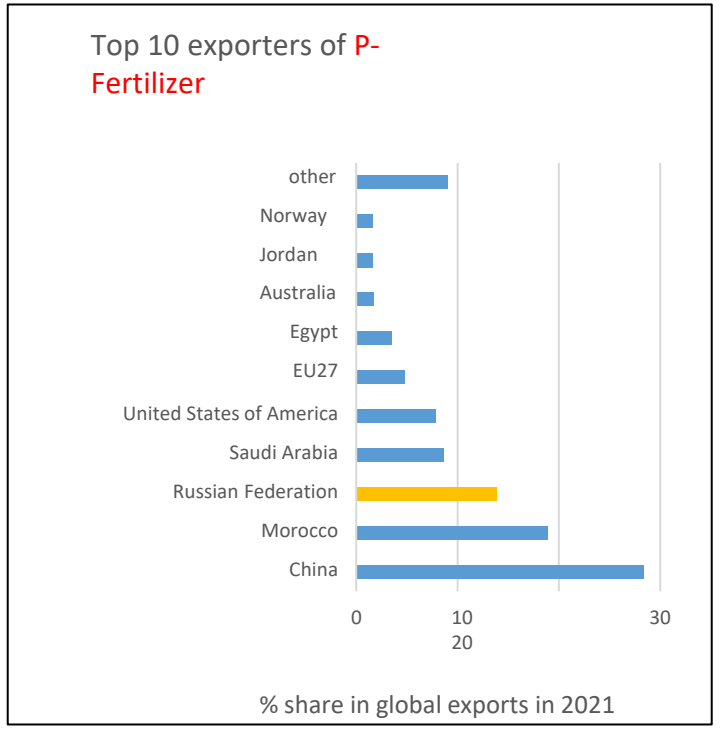


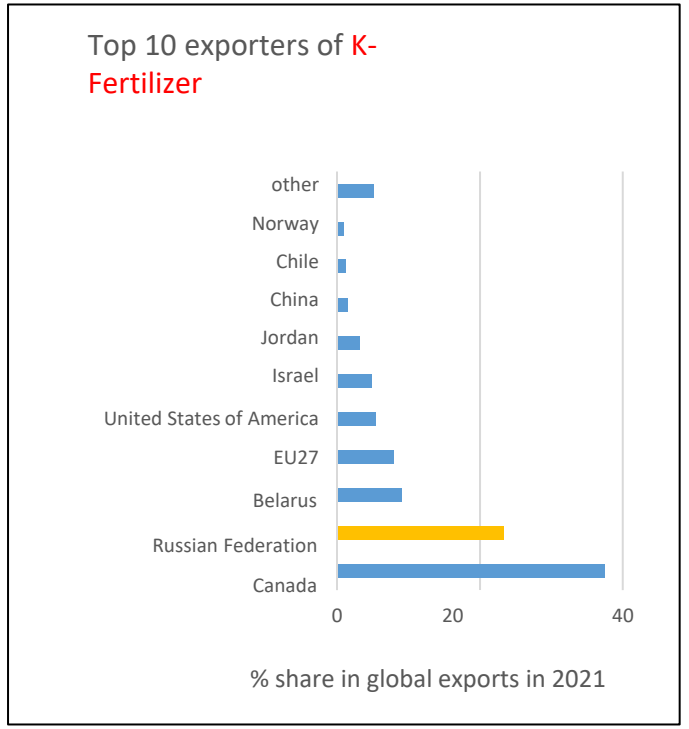


Note: Based on capacity of operative plants in 2008-09 according to IFDC Worldwide Fertilizer Capacity Listings by Plant.

High Concentration on the source of global fertilizer supplies

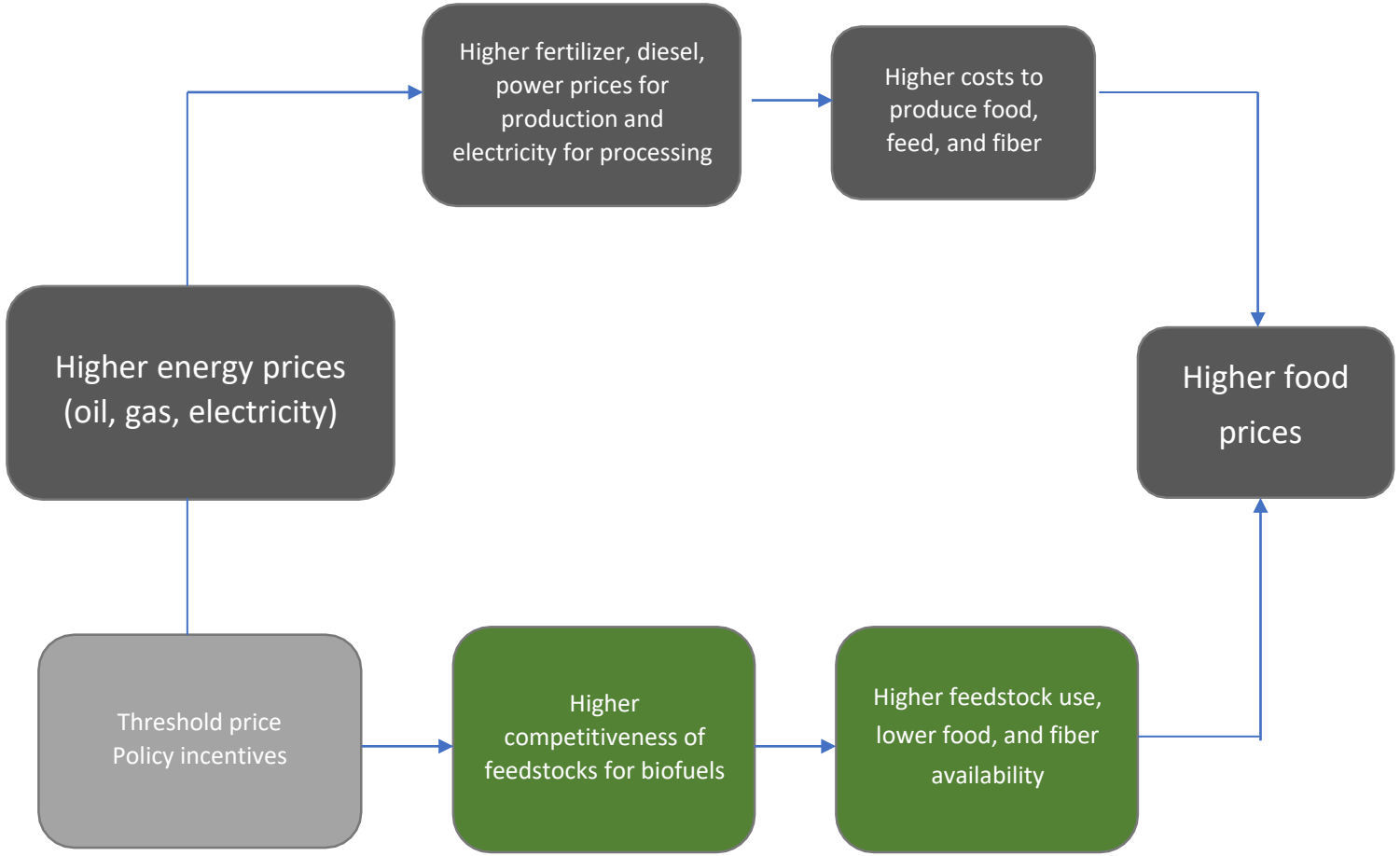




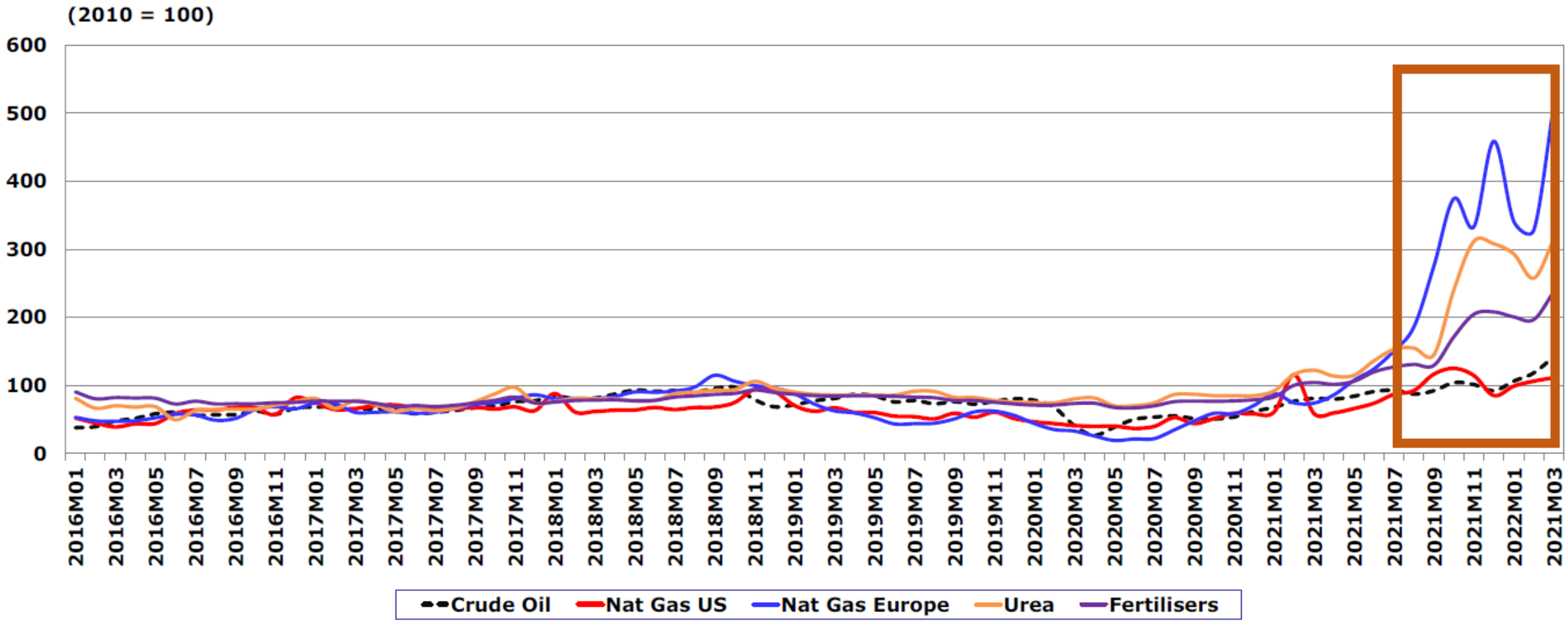


Source: FAO

Energy and agriculture: the principal channels of transmission

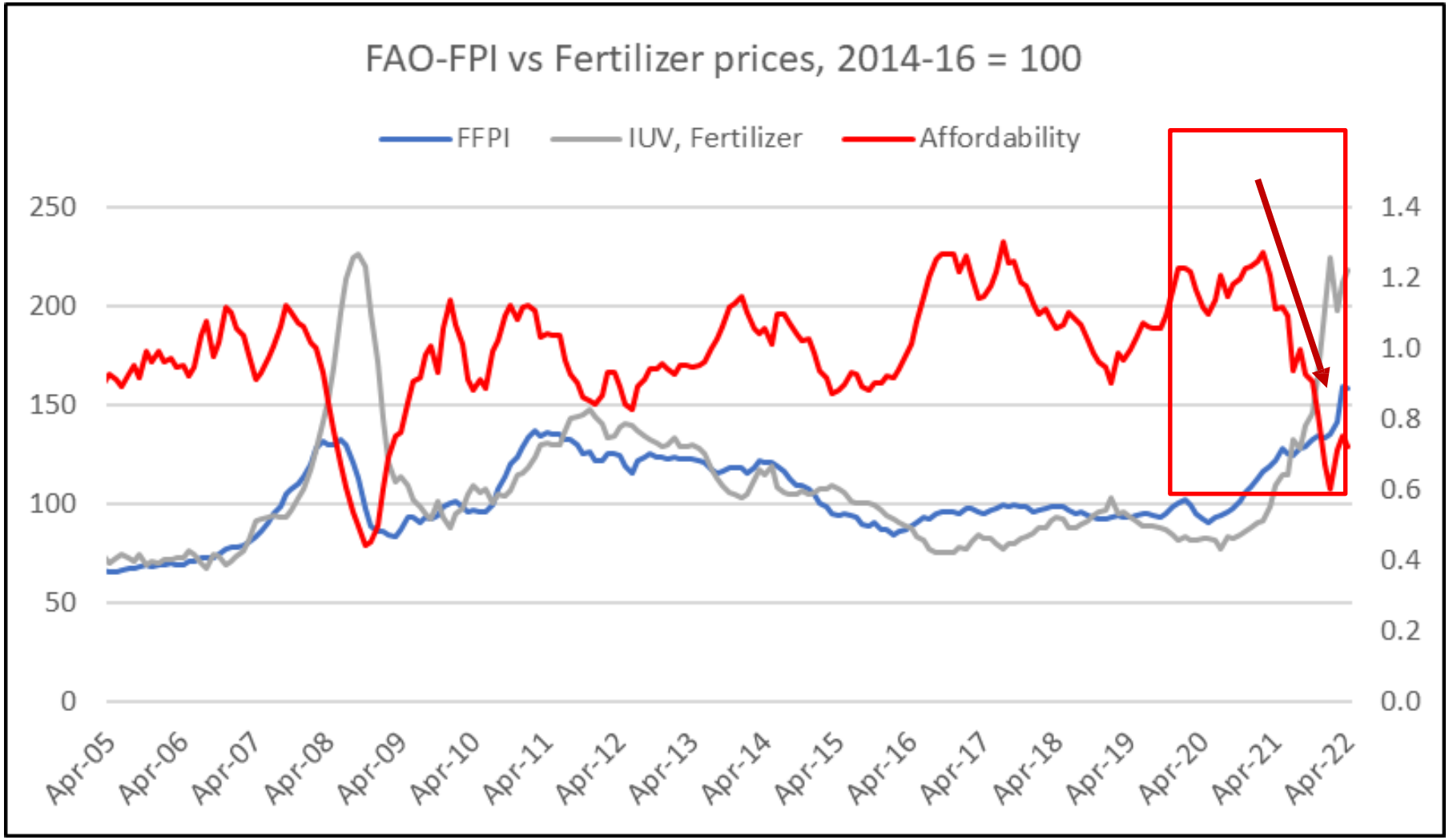


Energy and Fertilizer Prices (monthly nominal indices)



Source: World Bank.
Note: Monthly indices (average 2010=100).

Fertilizer affordability is precipitously falling



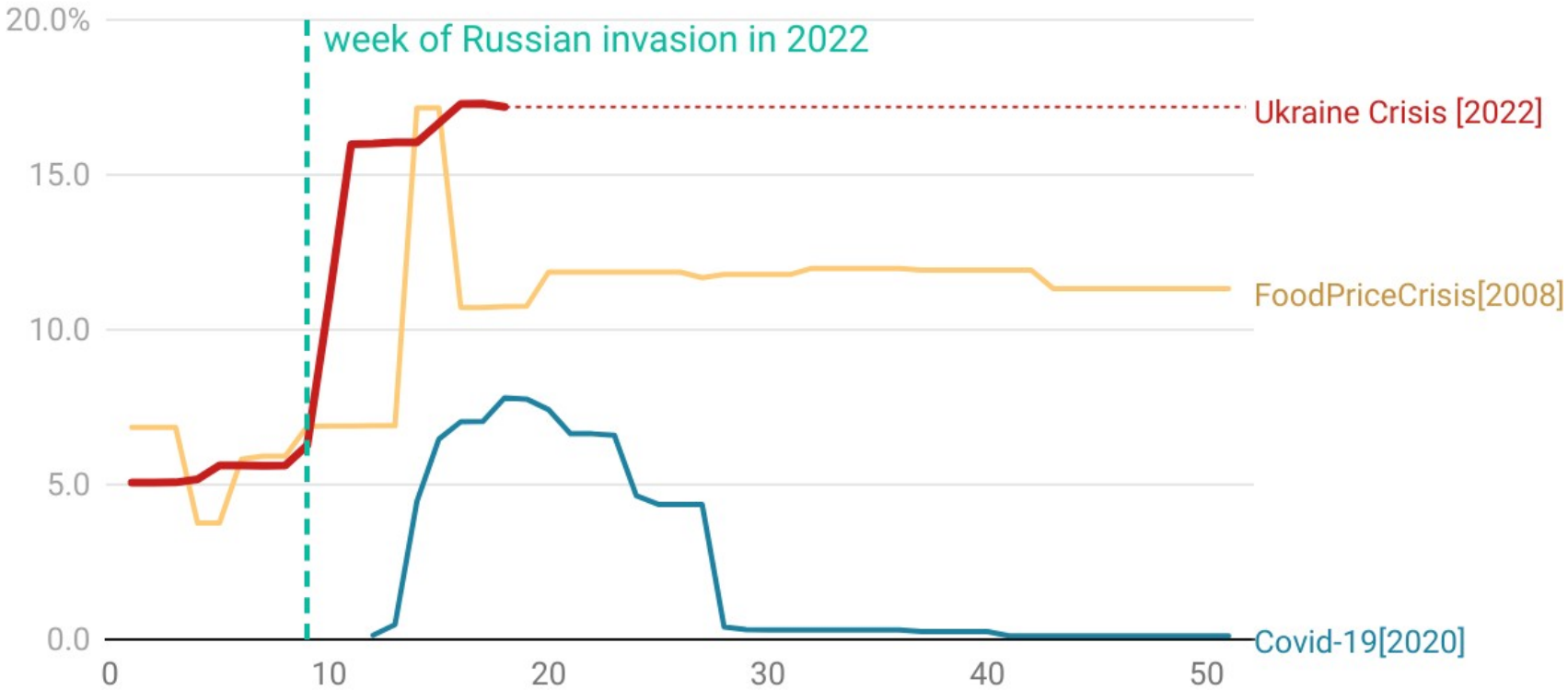
Source: FAO, TDM

The Past and the Present: Trade

Keep trade open

Evolution of the share of global trade, in calories, impacted by export restrictions

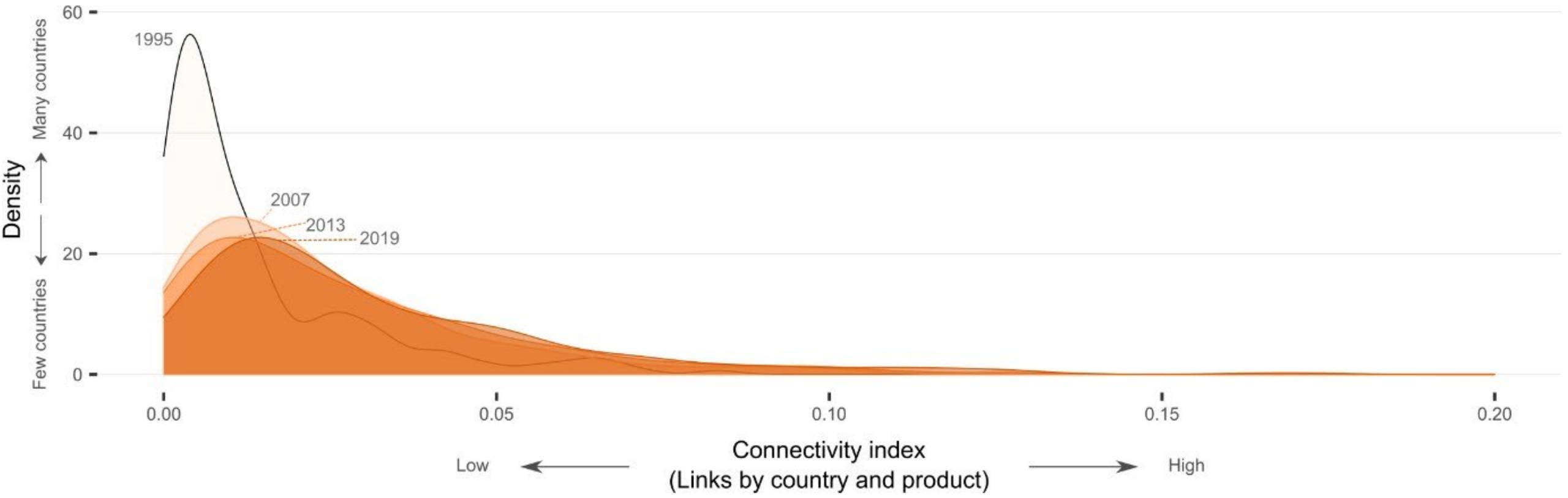
Daily update. Includes food, feed and other uses of food products.



X-axis shows the week of the year. 1= first week of the year.

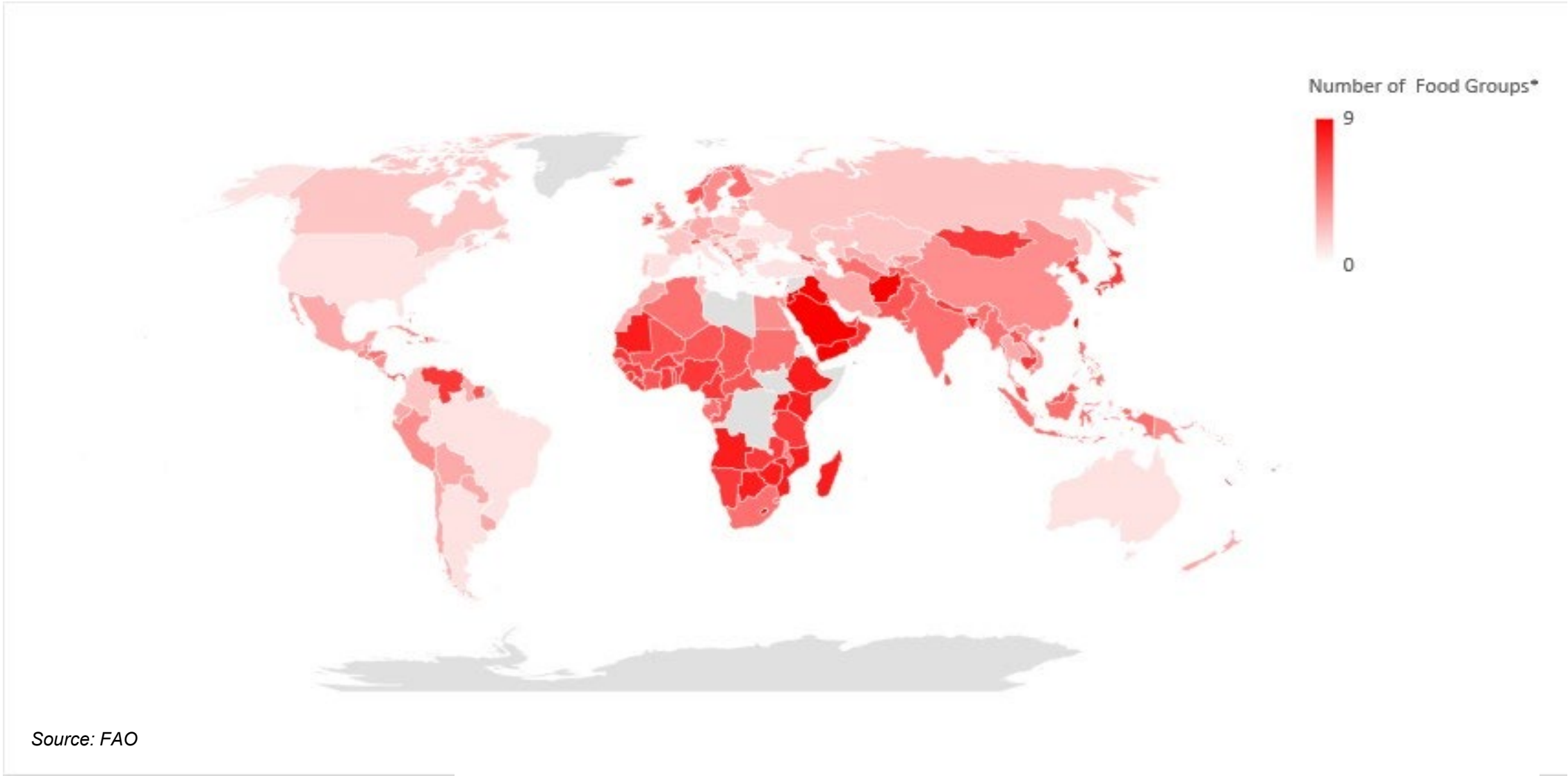
Chart: David Laborde • Source: IFPRI

Distribution of the connectivity across products and countries, normalized, 1995-2019



Note: Countries with many links by country and product, which source a large variety of food and agricultural products from many different exporters, are located on the right tail of the curves, those with a high concentration of their imports on few products and exporters on the left tail. Trade was highly concentrated on a few products and countries in 1995. Since then, the resilience of imports at country-product level has improved, but dependencies still exist.
Source: Adapted from Jafari et al. *(2022).*

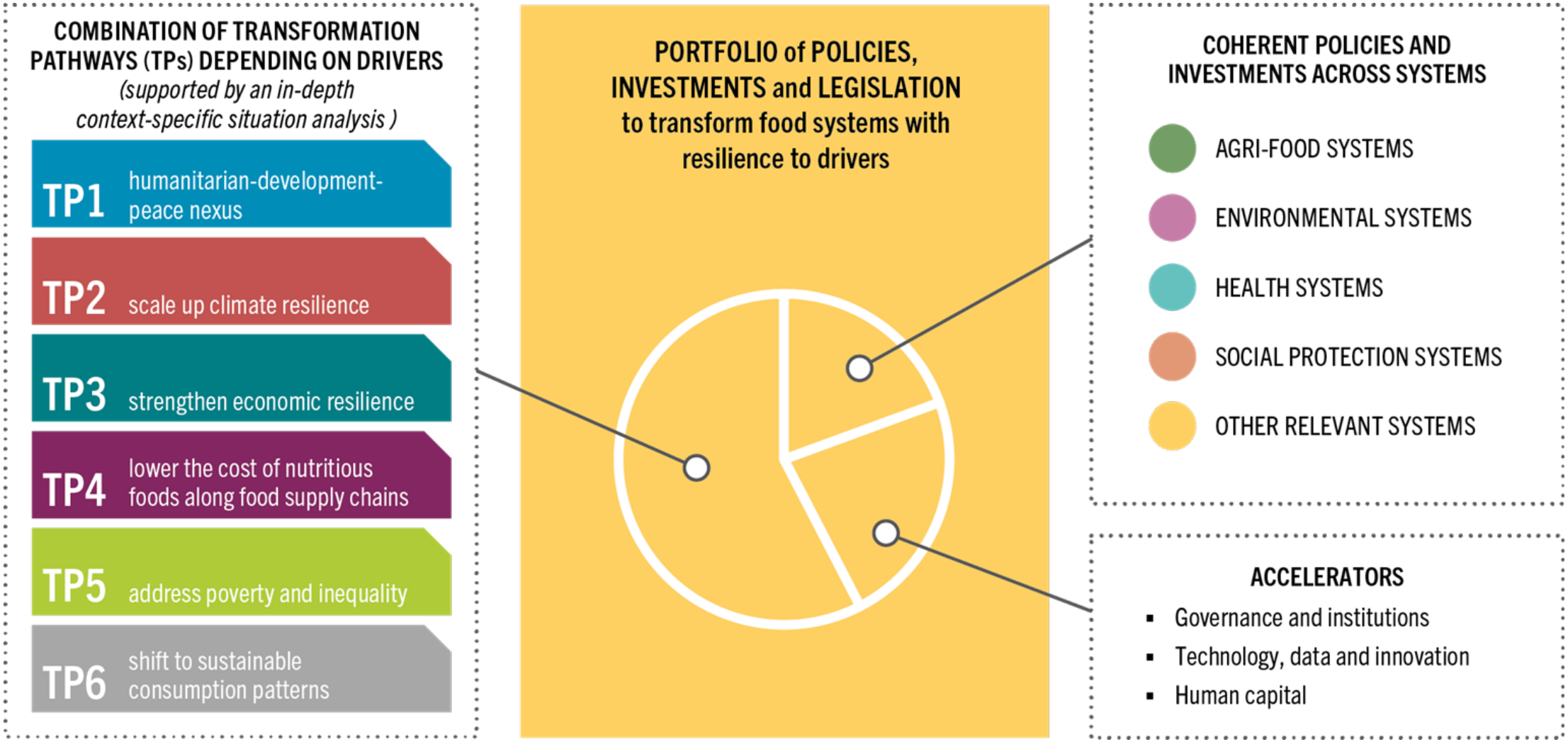
Number of food groups with insufficient domestic supply (adjusted by food loss waste)



Source: FAO

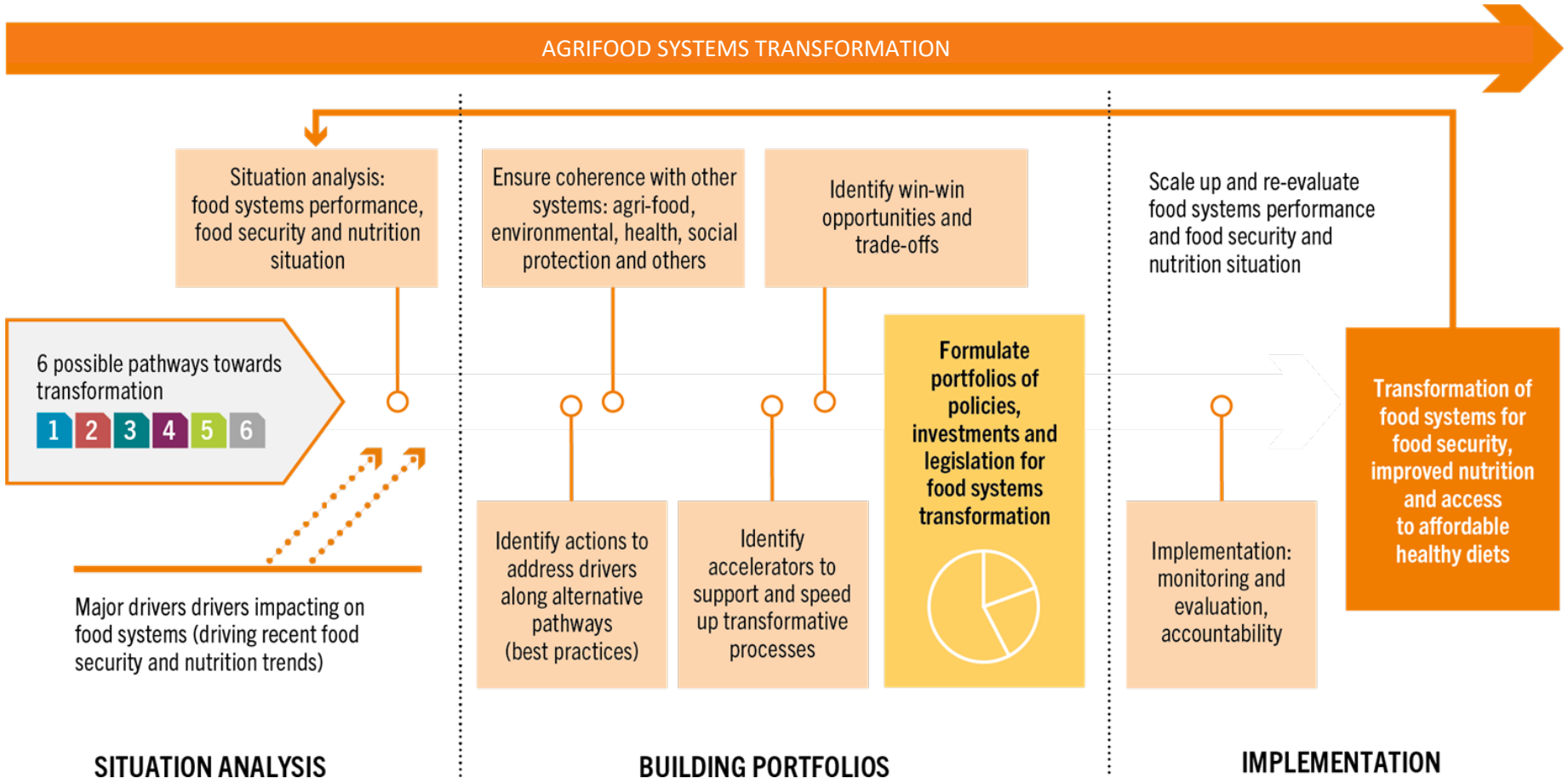
What to do?

Agrifood systems transformation



Source: FAO

How to build the most effective portfolios of policies and investments: putting it all together and the importance of the process



Source: FAO

Identifying Lessons Learned, Gaps, and Key Actions to Prepare for Future Crises and to Build Resilient Food Systems

Patrick Webb

Alexander McFarlane Professor of Nutrition at Tufts University, and Director of the Feed the Future Innovation Lab for Nutrition

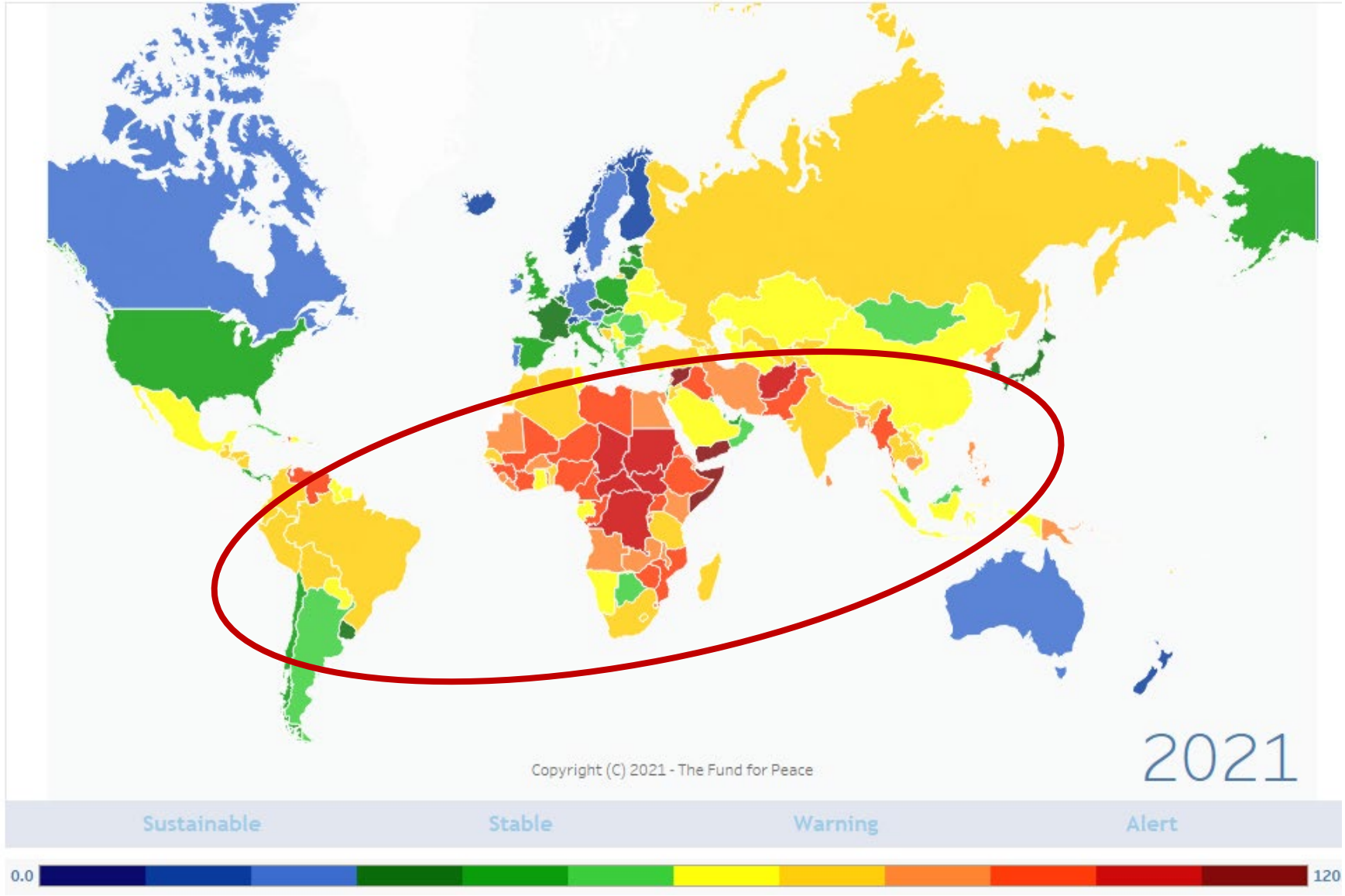
1. **Global crises** matter – because they impact the poor, erode past gains, and increase vulnerability in the future.

2. But **between** global shocks, there is growing vulnerability to day-to-day shocks; these challenge investments in longer-term development. How to address “chronic crisis conditions”?

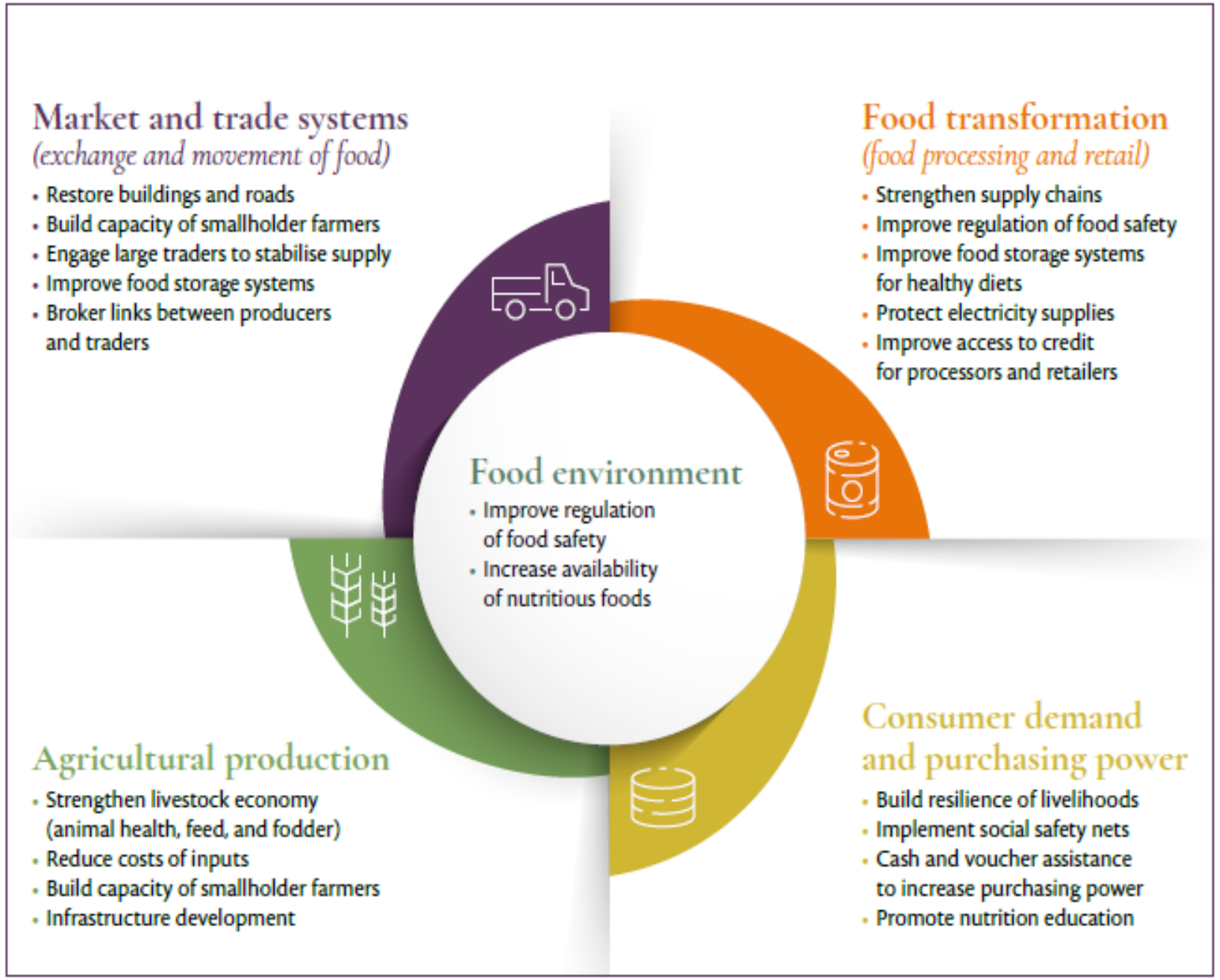
3. Solutions require us to approach this with **a food systems-wide approach**; linked-up solutions across sectors, not just agriculture (rural-urban livelihood systems); and focus on risk reduction in fragile contexts.

“Fragile States” in 2021/22

- In 2020, 1.8 billion people lived in “fragile contexts”; projected to be 2.3 billion by 2030, including c.80% of the world’s poor (OECD, 2020).
- “Fragile” refers to combinations of conflict, political instability, weak governance, and environmental threats.



Joined-up actions are needed to strengthen food systems: markets, purchasing power, small and medium-sized enterprises, input delivery systems, enhanced storage, etc.



Global Panel. 2020. Strengthening food systems in fragile contexts.

- We *can* “grow people out of poverty” (the evidence is strong), but it’s **not clear** that we can “grow people out of crisis.”

- Other actions needed – i) protect consumption (not just production); and ii) valorize people’s assets.

  i) **Protect consumption**. Nutritional resilience is “a thing.” Diets in 2008 suffered hugely, but impacts on children were largely invisible – women buffered their calorie intake, and micronutrient deficiencies grew “out of sight” (Webb, 2010).

  ii) **Valorize assets** means allowing people to secure crisis income from their labor, livestock, learning, and land. Not just crop weather index, but “banking” sale of animals, cash-for-work on productive infrastructure, etc.

Conclusions

- Each crisis is different, yes, but some elements are common in terms of policy (re-)actions:
  - focus on fertilizer price (linked to oil) rather than how fertilizer is used;
  - food export bans;
  - supply chain disruption; and
  - solutions focused on growing more food rather than transforming systems and operating differently.

- Global crises are amplifying each other (climate, COVID-19, cost of food, conflict), and causing more fragility. The key is to find multi-purpose policy solutions, *not* treat crises as unique, and focus on long-term gains rather than short-term hand-waving.

Outsmarting the 3 C's Strengthening Resilience to Climate, Conflict and COVID Shocks

Sandrine Chetail-Armour

Global Senior Director, Economic Growth
Mercy Corps

900%

300%

45%

MERCY CORPS


MERCY
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Outsmarting the 3 Cs

Our triple mission

1. Protect and maintain assets & income during crises

2. Re-think food systems to make them more adaptable

3. Transform food systems beyond adaptation

MERCY CORPS

Protect & Maintain Assets & Income

- Cash at scale - smarter, bigger

Nigeria - Leveraging ratio of 1.3 of private investments

Protect & Maintain Assets & Income

- Working with local actors - savings groups, insurance

Nigeria - Savings increased by an average of $72 USD per individual in less than 1 year

Nigeria - Partnering with regional insurance provider

Protect & Maintain Assets & Income

- Working with local actors - social protection

Lessons from Iraq:

- Government engagement
- Scale, harmonization and rigor within the international aid community
- Powerful mediator - the World Bank
- Donor commitments to fund beyond short-term humanitarian funding cycles
- Early harmonization in targeting and program design across the humanitarian community

Making Food Systems More Adaptable

- More Local

Nigeria - boost and diversify wheat supply of Flour Mills Nigeria

- More Diversified

Nigeria - millet and corn to replace wheat

Radically Transforming Food Systems

- Green agenda

Jordan - 10 million cubic meters saved

- Embracing technology

Nigeria - digital platform for transporters

Outsmarting the 3Cs

Recommendations & Way Forward

Take-home #1: layer short-term emergency response with longer-term market support

MERCY CORPS

Outsmarting the 3Cs

Recommendations & Way Forward

Take-home #2: Partner with actors across the spectrum

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Outsmarting the 3Cs

Recommendations & Way Forward

Take-home #3: Invest in innovative solutions at scale

MERCY CORPS

MERCY CORPS

Sandrine Chetail-Armour

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Identifying Opportunities to Accelerate Transformative Climate Change Adaptation and Mitigation Action

Ann Vaughan

Senior Advisor for Climate Change
Bureau for Resilience and Food Security
USAID

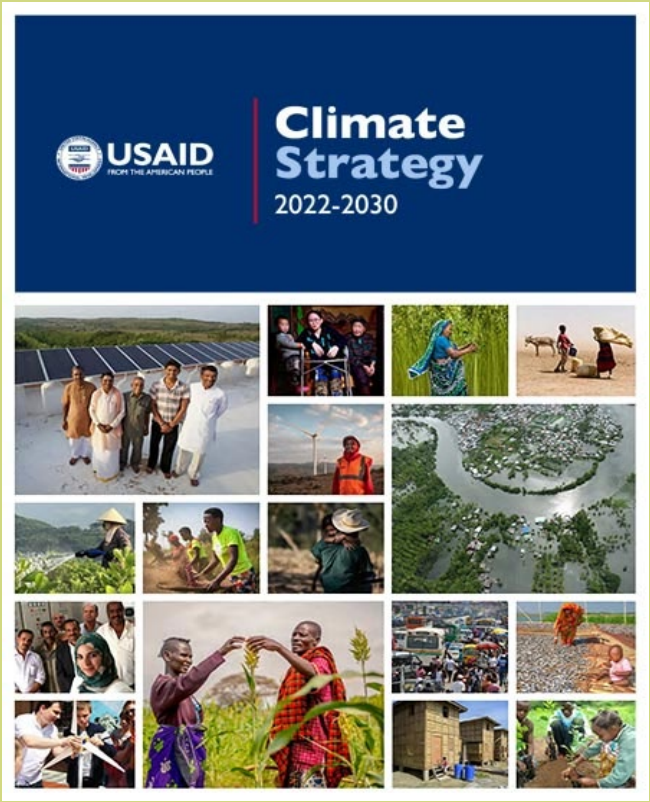
USAID
FROM THE AMERICAN PEOPLE

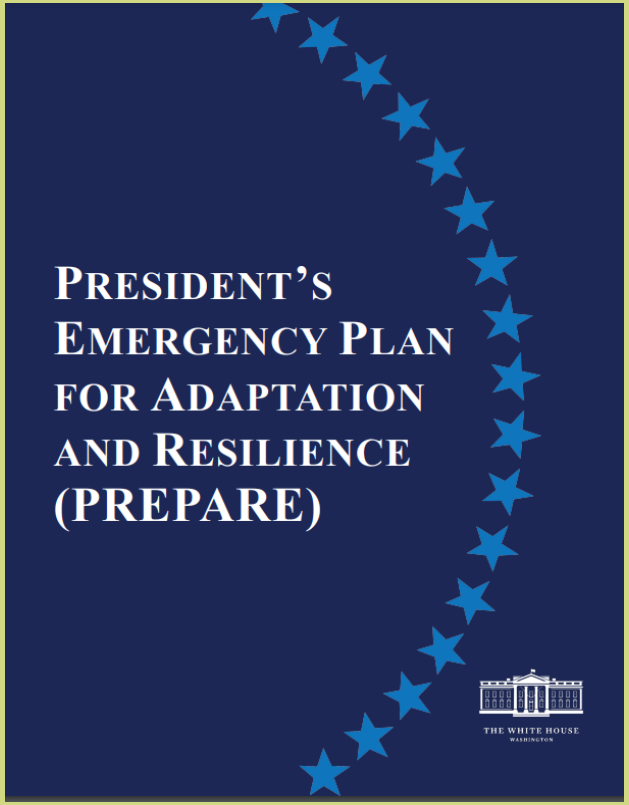
Accelerating Climate Change Mitigation and Adaptation: From Strategy to Action

Ann Vaughan – Senior Advisor for Climate Change, USAID Bureau for Resilience and Food Security

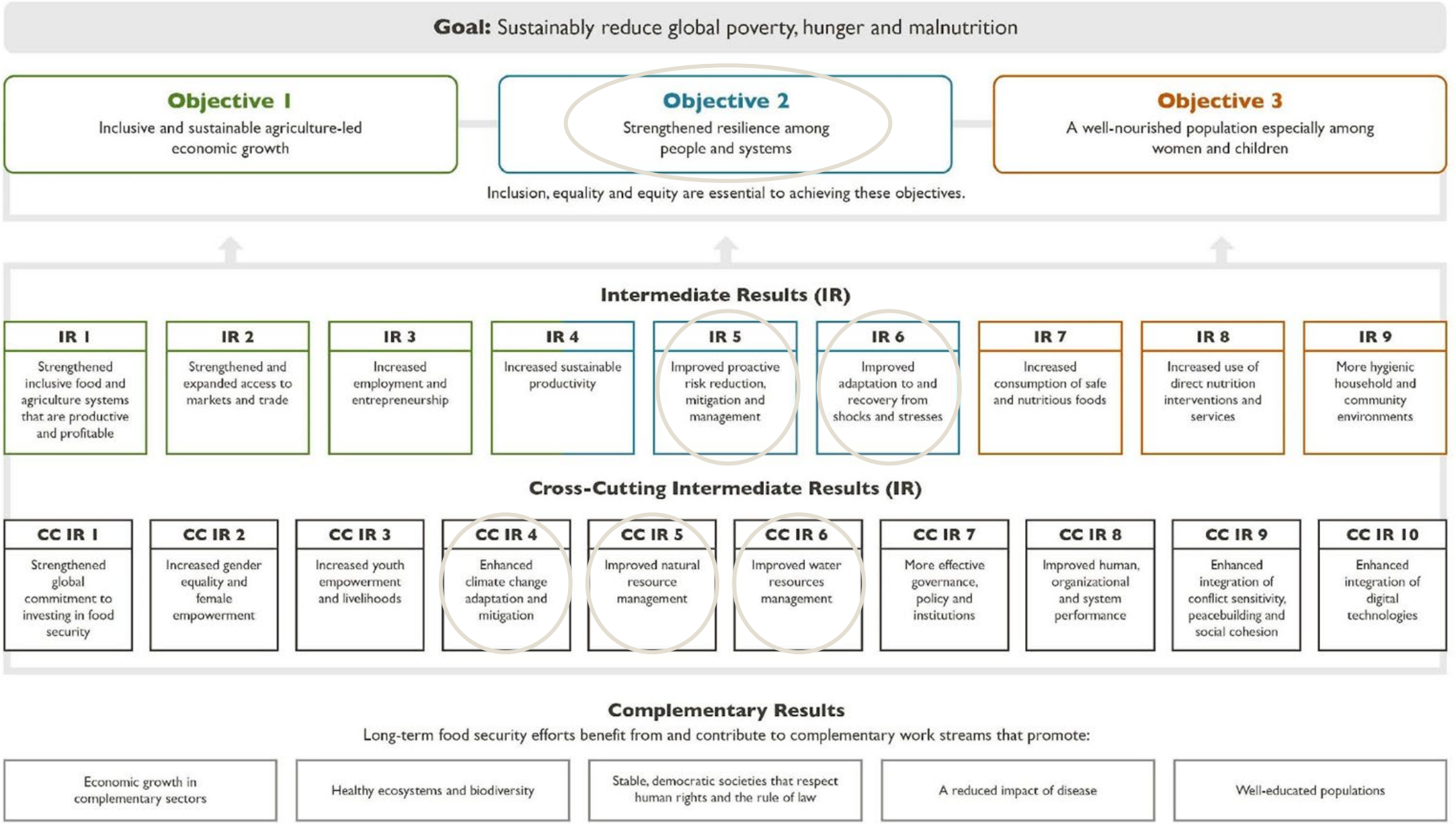
May 23, 2022

The agri-food system plays a critical role in meeting the U.S. Government's climate priorities





U.S. Government Global Food Security Strategy FY 2022-2026 Results Framework



Source: USAID

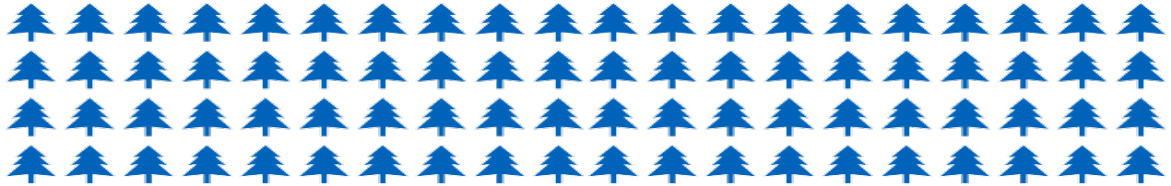
Climate Strategy Targets 2022-2030

Mitigation :
CO2e reduced

6 Billion metric tons

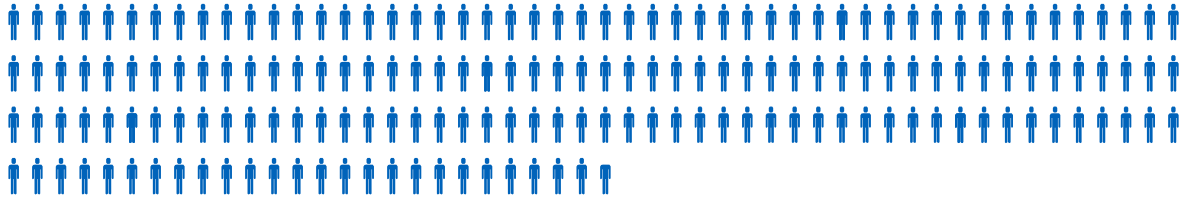
Natural & Managed Ecosystems:
Hectares protected, restored, or managed

100 Million hectares



Adaptation :
People supported to be climate resilient

500 Million people



Finance:
Public and private finance mobilized

150 Billion dollars

Country Support :
NDCs/NAPs supported

80 Countries supported

Critical Populations :
Increase equitable engagement

40 Country partnerships strengthened

Source: USAID

“Our entire agency is a climate agency now ”

-Administrator Power

Photo credit: USAID

Thank you

Ann Vaughan,
avaughan@usaid.gov