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International Trade and Global Food Security

3rd G20 Agriculture Working Group Meeting (MPA)

*Session II. Organized by
Insper Agro Global and IICA
Contributions : B20 and T20*

Brasilia, June 11th 2024



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2. Drivers of Food and Nutrition Security



3. Fundamental Functions of International Trade



4. Structure and Trends of International Food Markets



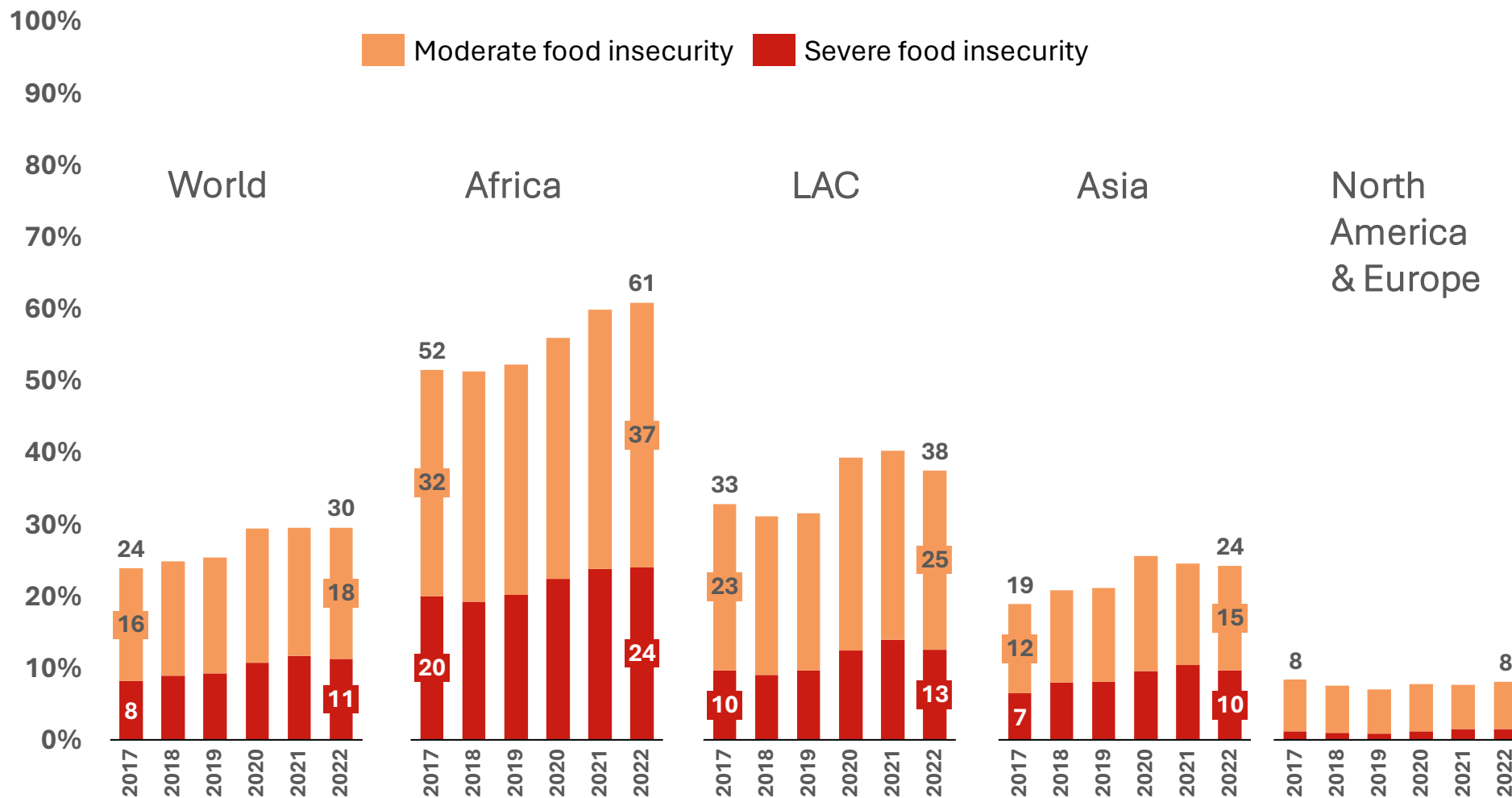
5. Public Policies To Optimize Trade and Enhance Global Food Security

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An Overview of Unbalanced Access to Safe and Nutritious Food

Prevalence of Moderate or Severe Food Insecurity in the Total Population (% , by regions)

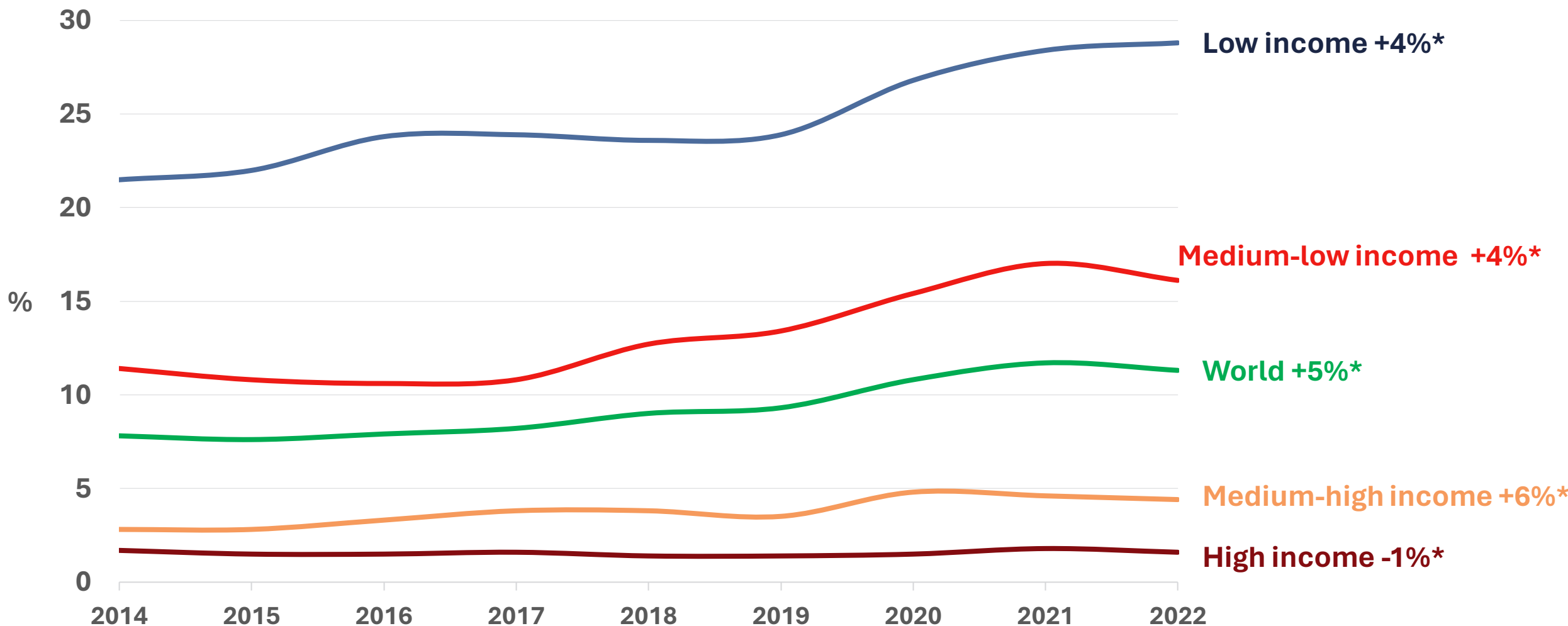


Food insecurity:

“Situation when people lack secure access to sufficient amounts of safe and nutritious food for normal growth and development and an active and healthy life.”, FAO.

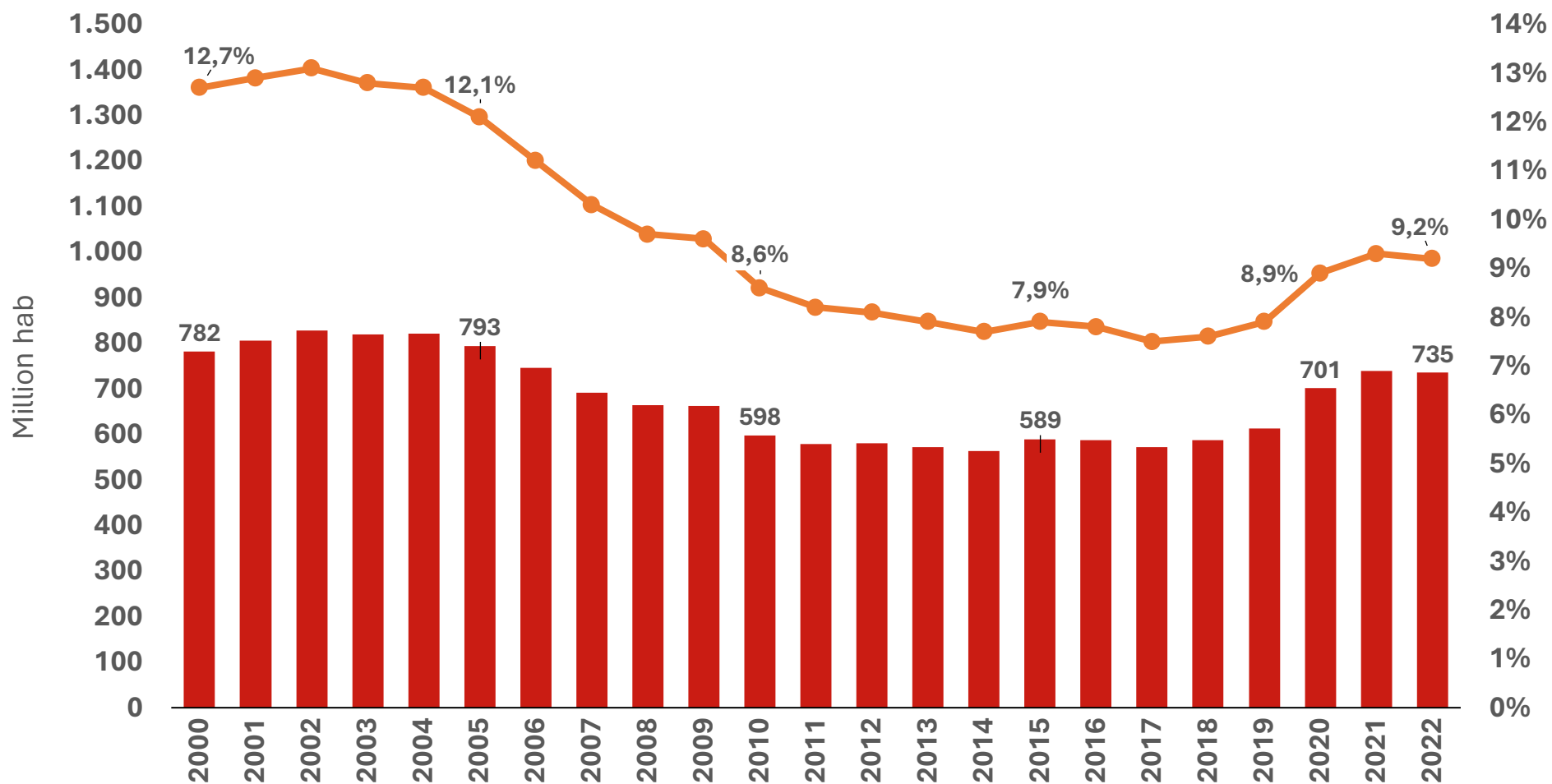
Widening Economic Gap in Severe Food Insecurity

Severe Food Insecurity Distribution by Economic Status (% of total population and CAGR, from 2014 to 2022)



Global Undernourishment: rising trends after years of decline

Number of Undernourished People (in millions) and Prevalence of Undernourishment (%) Worldwide

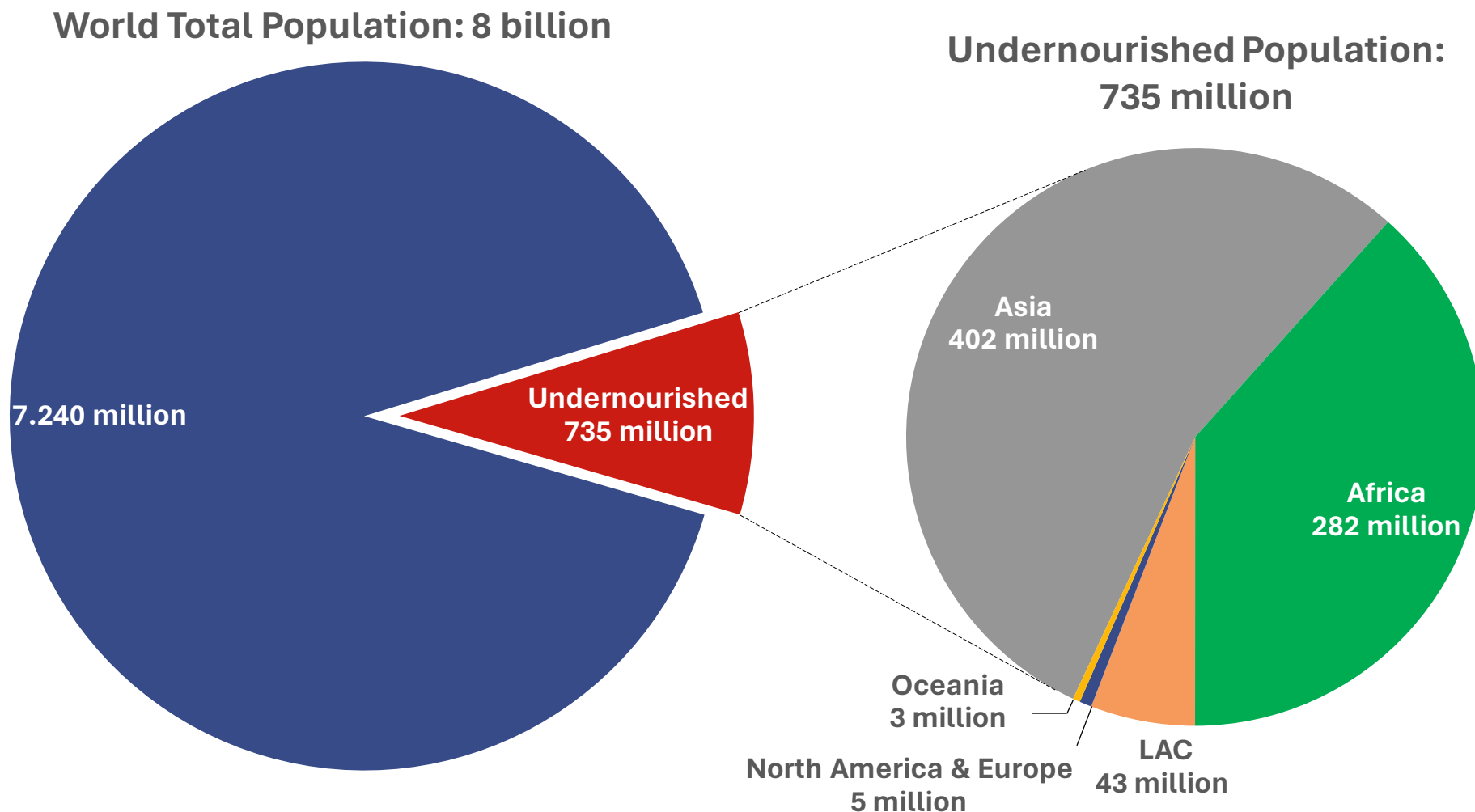


Undernourishment:

“Undernourishment is solely determined by the sufficiency of energy (calorie) intake. It does not consider the quality or diversity of someone’s diet. It is often used interchangeably with the term ‘hunger”, FAO

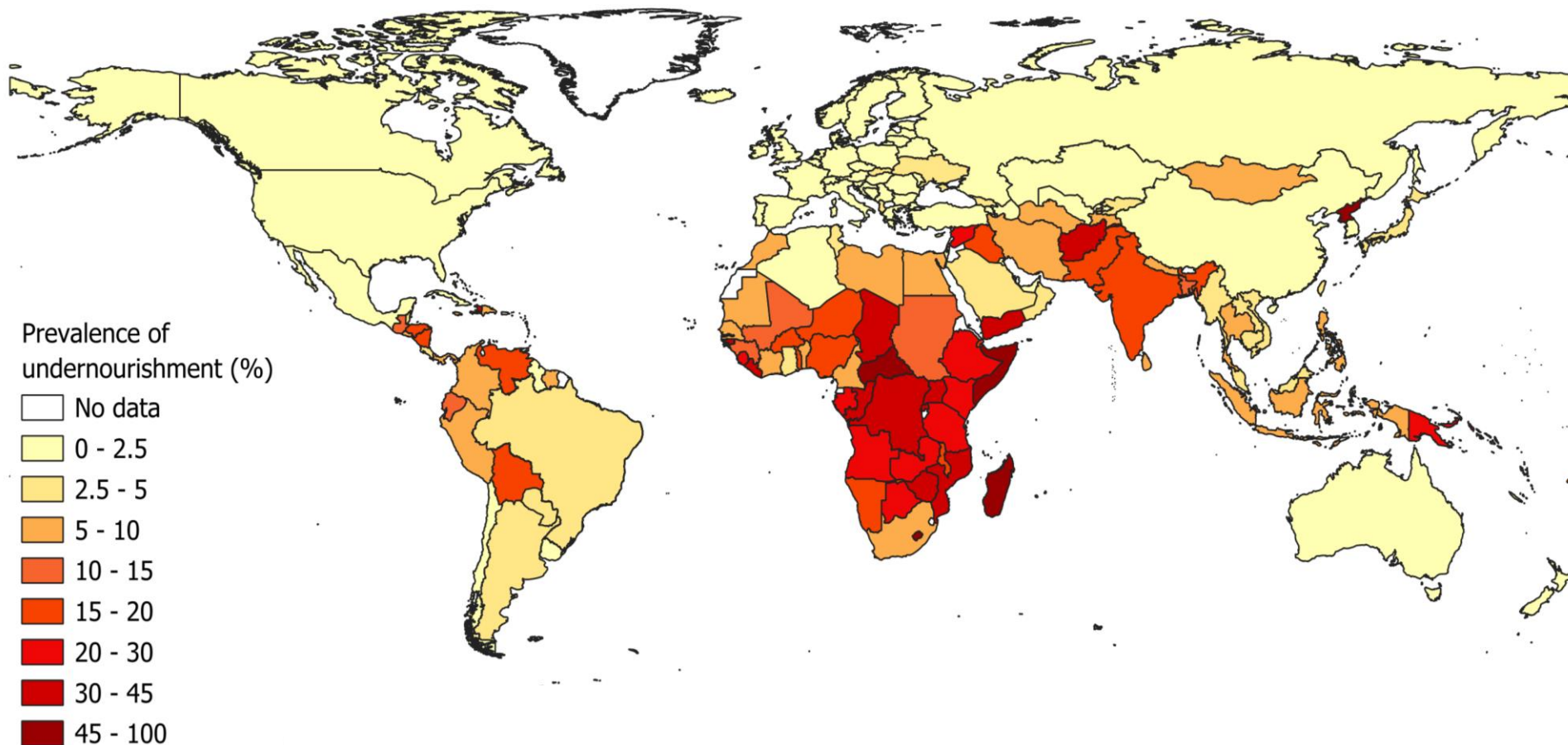
Global Distribution of Undernourishment

Undernourished Population Proportion and Key Affected Regions in Millions, 2022



Mapping Hunger: visualizing the urgency of global undernourishment

Prevalence of Undernourishment by Country, in 2021



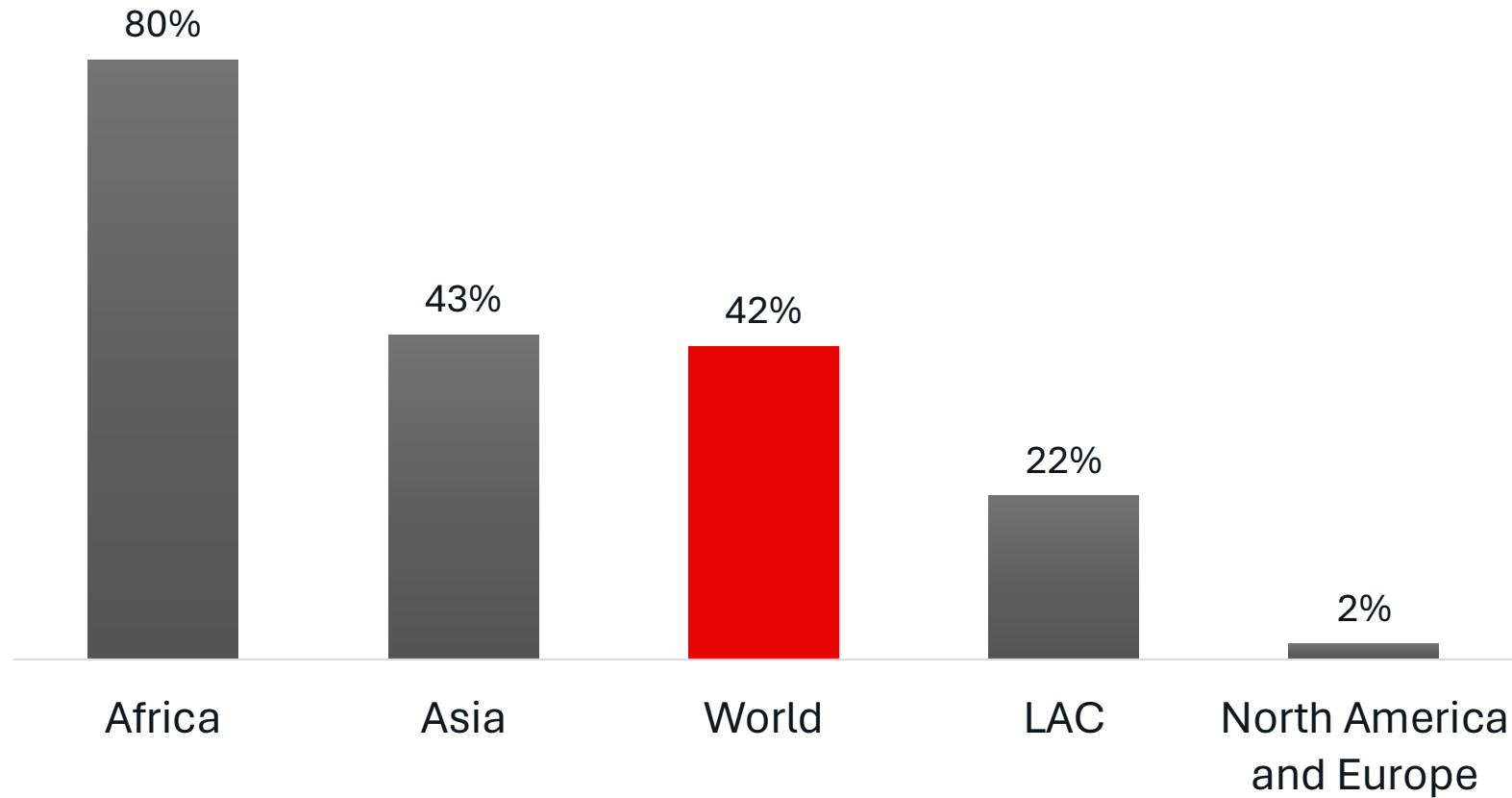
Undernourishment:

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More than 3 billion people worldwide lack access to healthy foods

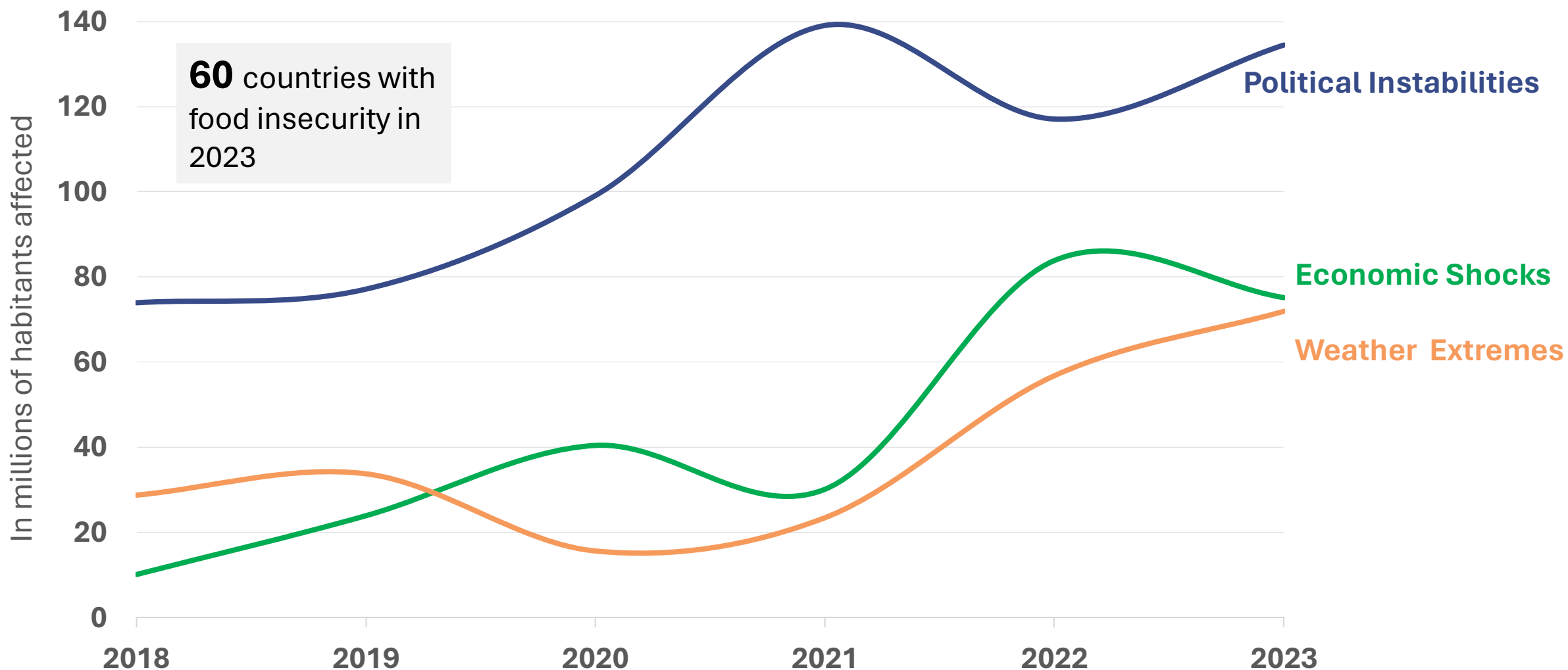
Population without access to healthy foods (%)





Primary Drivers of Food Insecurity

Number of Inhabitants Affected in Countries with Food Crisis (in millions, 2018 to 2023)

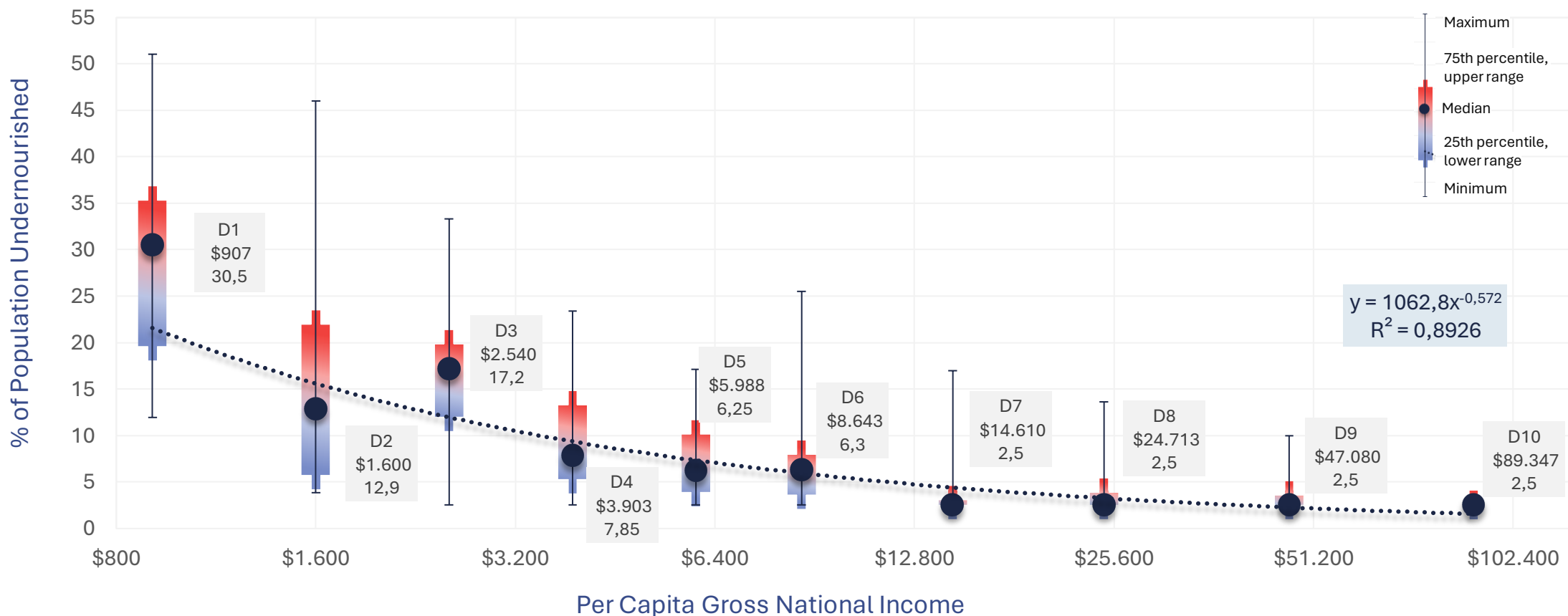




Income: A Critical Driver of Food Security

Prevalence of Undernourishment (% of population) Per Income Decile (Median Per Capita in USD for 166 countries)

As per capita income increases, the prevalence of undernourishment significantly decreases

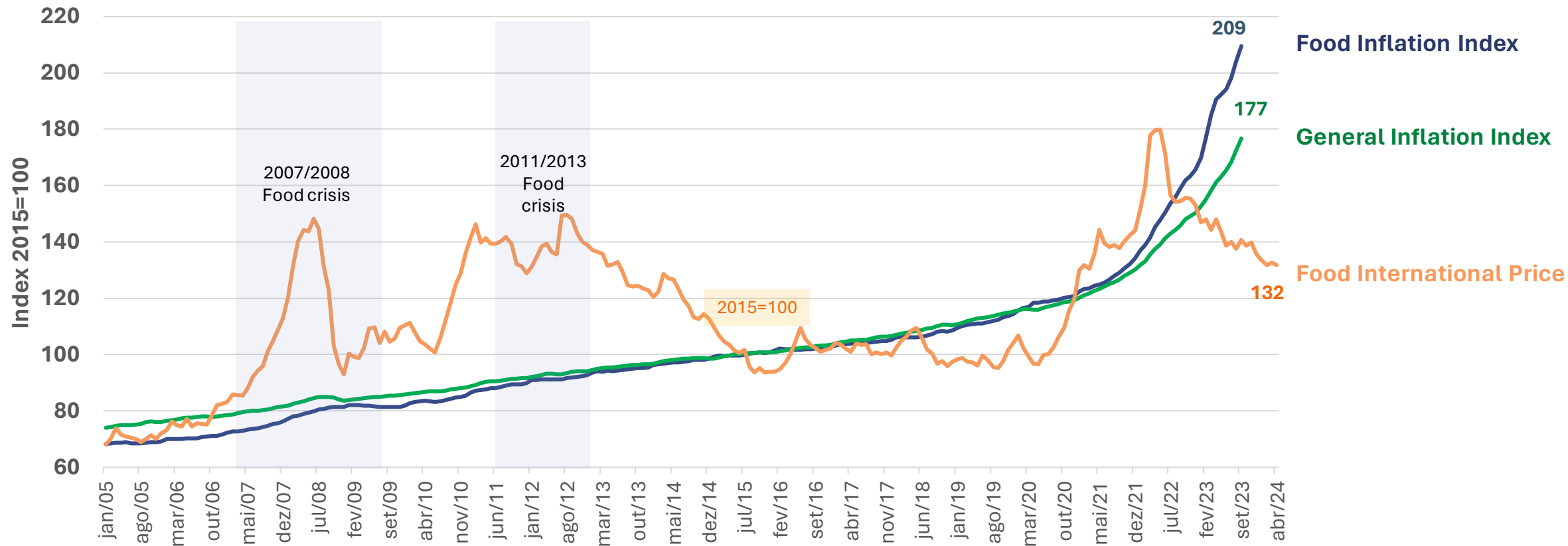




Inflation as a Key Driver of Food Insecurity

Rising food inflation disproportionately affect the poor, who spend a larger share of income on food

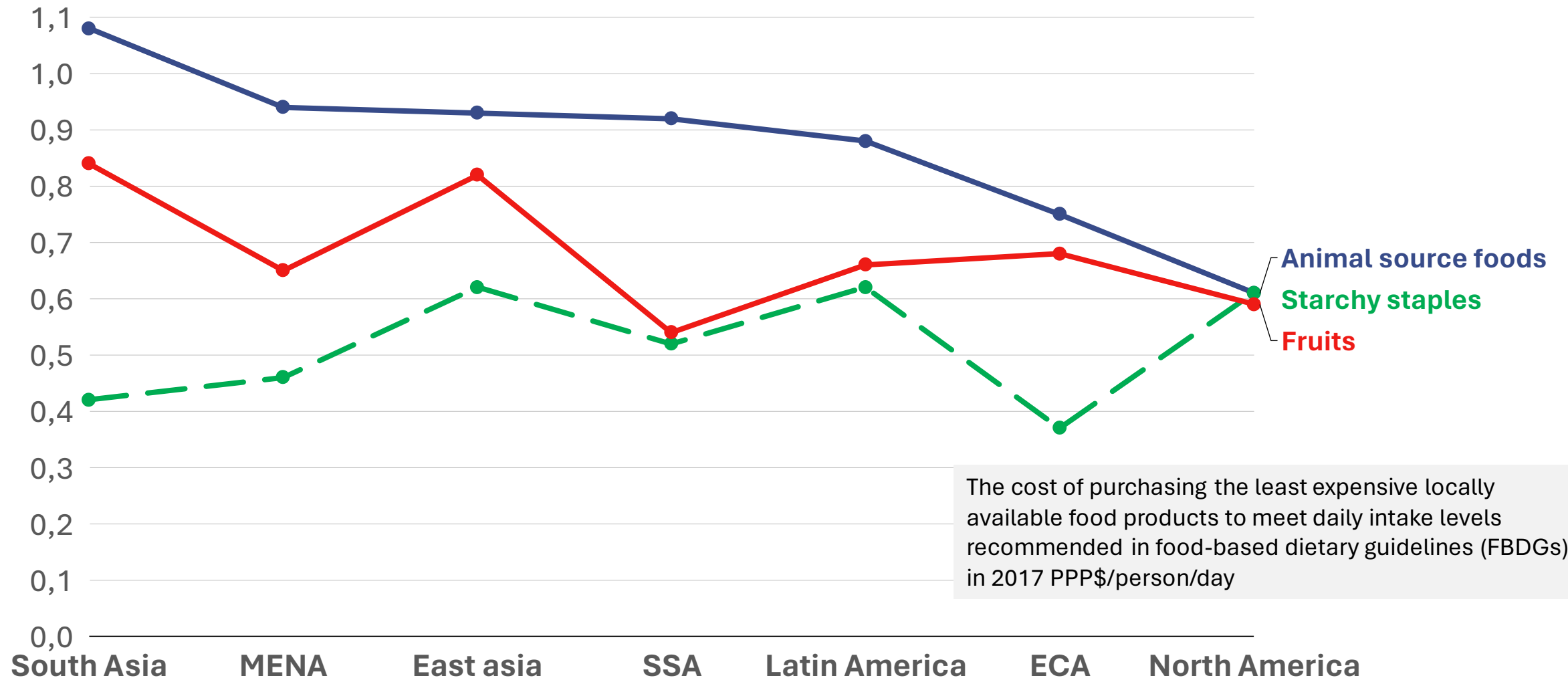
World General and Food Inflation Indexes and the International Food Price Index (2015=100; from Jan 2005 to Apr 2024)





High Food Costs Limit Access to Nutrition

Cost of Food Products in Different Regions

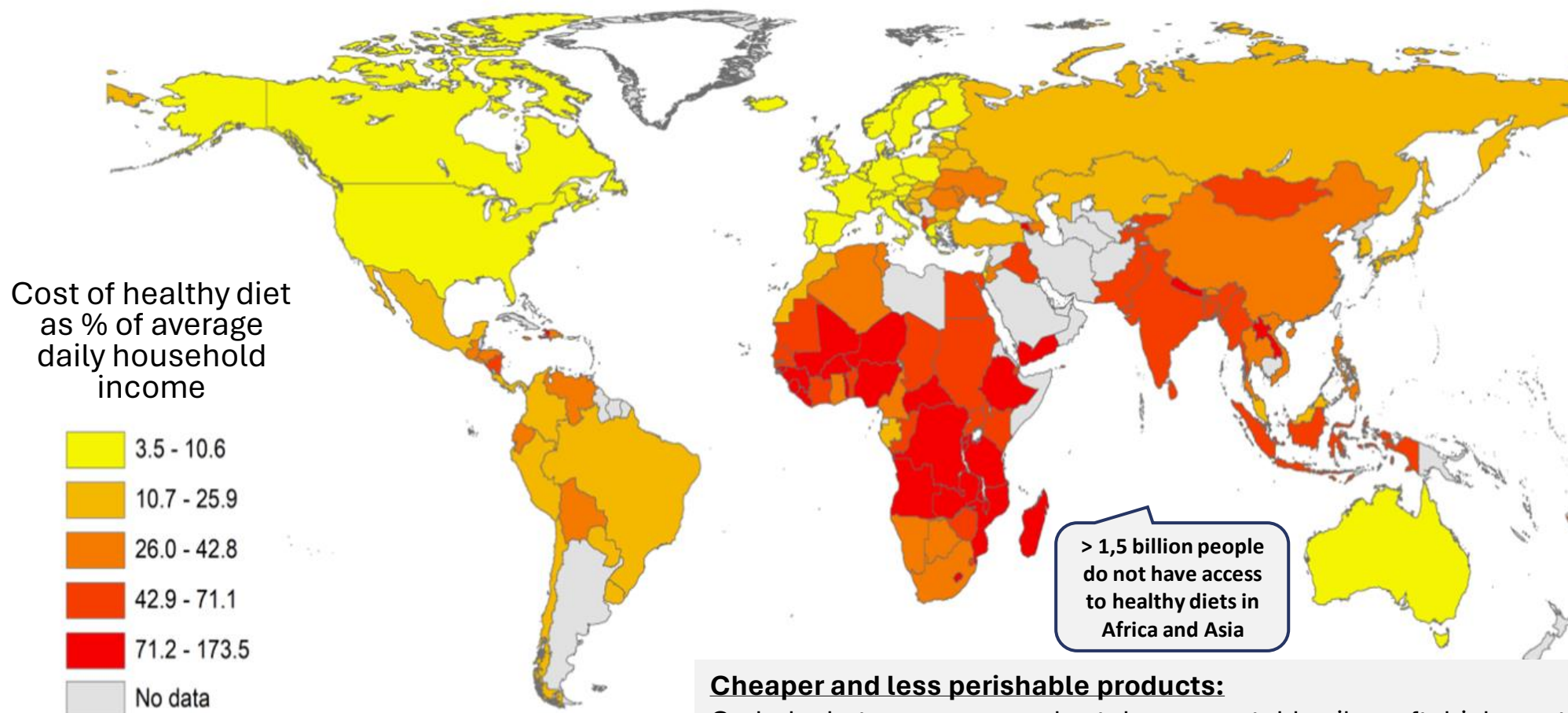


The cost of purchasing the least expensive locally available food products to meet daily intake levels recommended in food-based dietary guidelines (FBDGs), in 2017 PPP\$/person/day



Healthy Diets are Relatively More Expensive Across Income Levels

The Cost of a Healthy Diet as % of Average Daily Household Income



Cheaper and less perishable products:

Carbohydrates, sugar, snacks, tubers, vegetable oils, soft drinks, nuts.

More expensive and perishable products:

Fruits, vegetables, dairy, eggs, meats in general, fresh fish.

International Trade is Essential in Enhancing Food Security and Nutrition

Seven fundamental functions of international trade

KEY ROLE OF INTERNATIONAL TRADE

- Connects national food systems
- Moves food from surplus to deficit regions
- Facilitates the formation of a sustainable global food system
- Has distributive effects



1. Redistribution of food production

- Global complementarity and availability
- Increases quantity and quality of products
- Neutralize negative shocks (climate, diseases)



2. Diversity of Food Choices

- Increases food variety available to consumers
- Promote dietary diversification



3. Price Stabilization

- Affordability to vulnerable populations
- Reduces the effect of temporary shocks



4. Combats Hunger and Malnutrition

- Improves overall health and wellbeing
- Create opportunities of employment and income



5. Better Safety and Health Standards

- Ensures consumption of safe foods through regulated systems



6. Boosts Agricultural Productivity

- Enhances income for farmers
- Spreads technologies and best practices

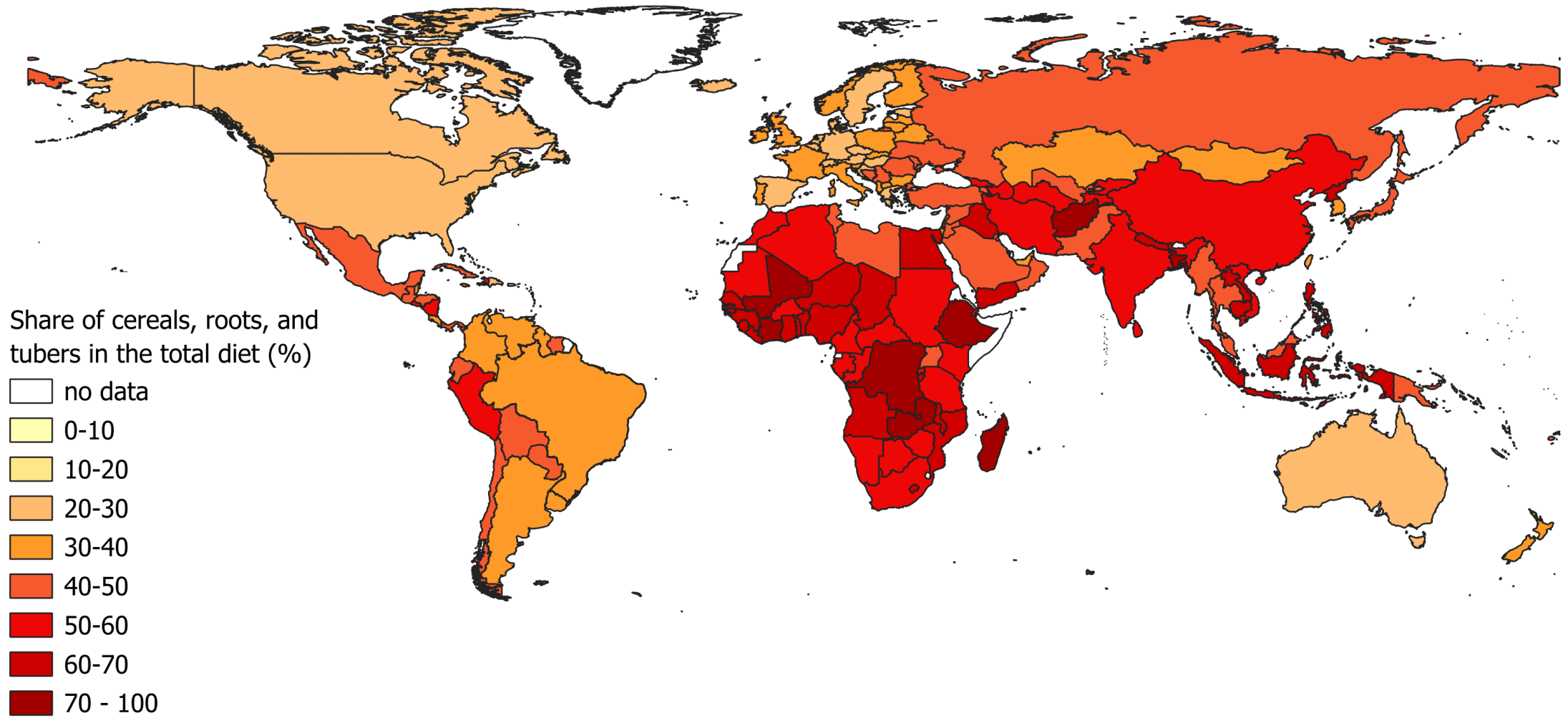


7. Efficient Resource Allocation

- Allows production to take place in more productive and sustainable regions
- Mitigates supply disruptions due to climate factors

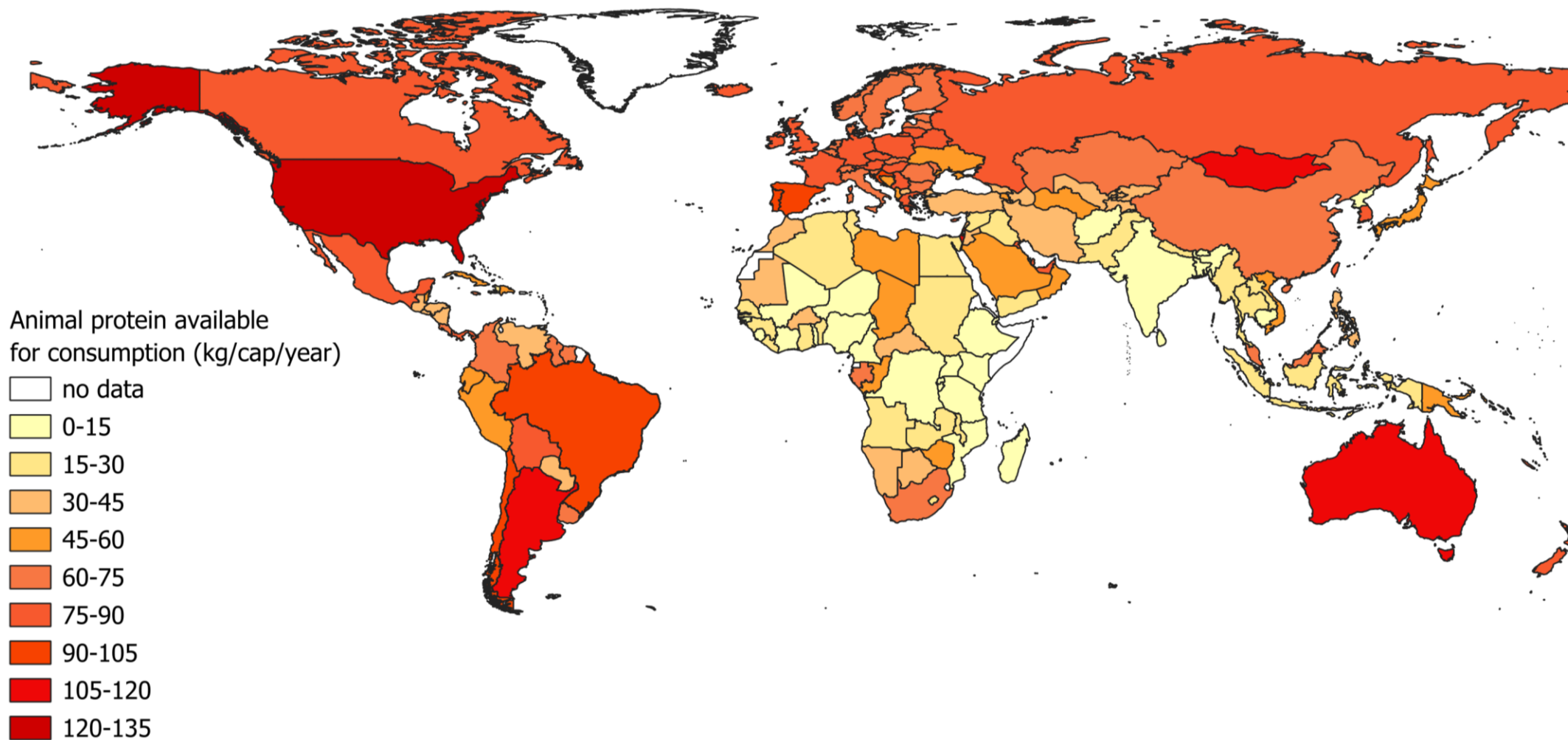
Starchy Staples: Global Consumption Dependence

Percentage of Recommended Daily Diet Available for Consumption (kcal/cap/day, 2019)



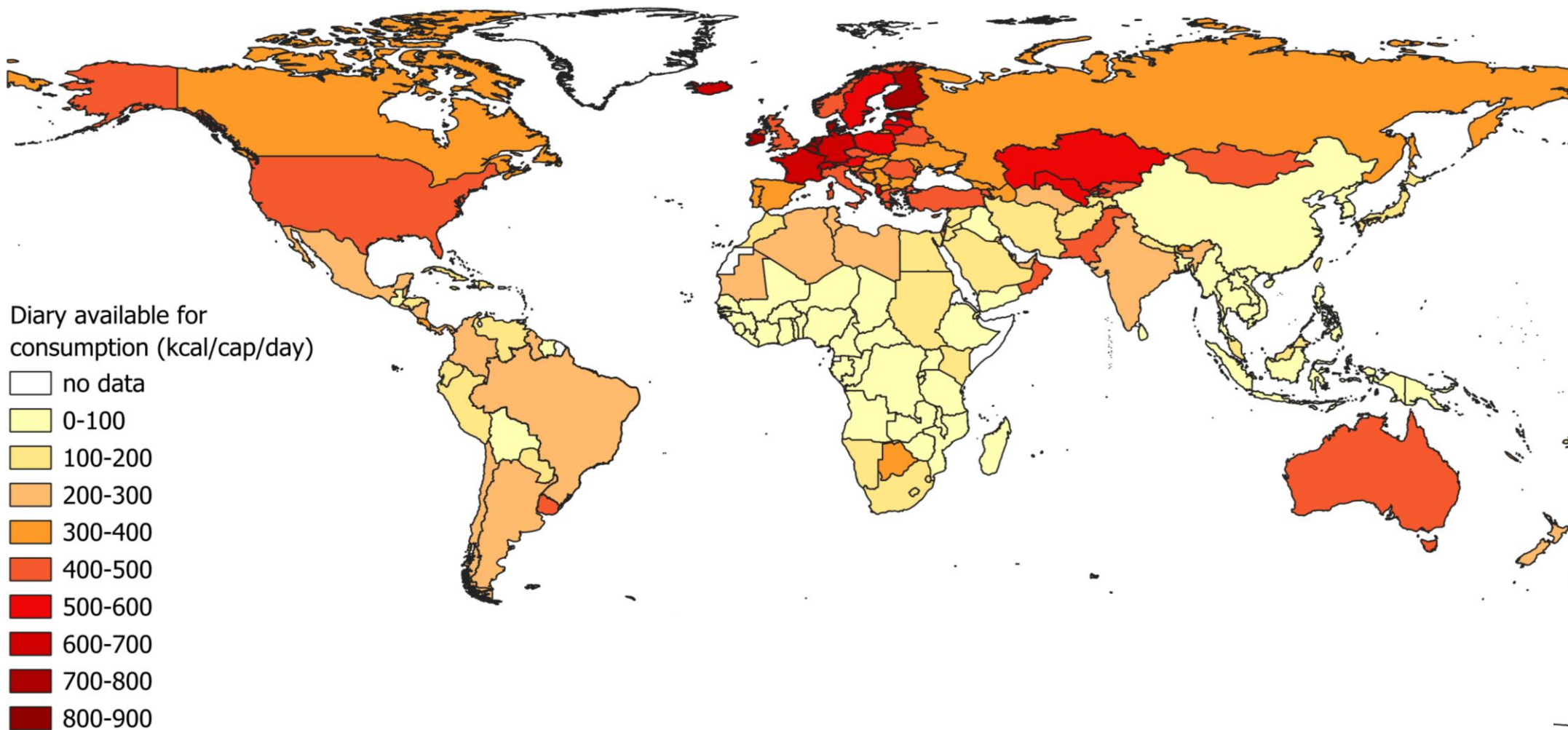
Meats: Global Consumption Patterns

Per Capita Meat Availability by Country (Kg/cap/year, 2021)



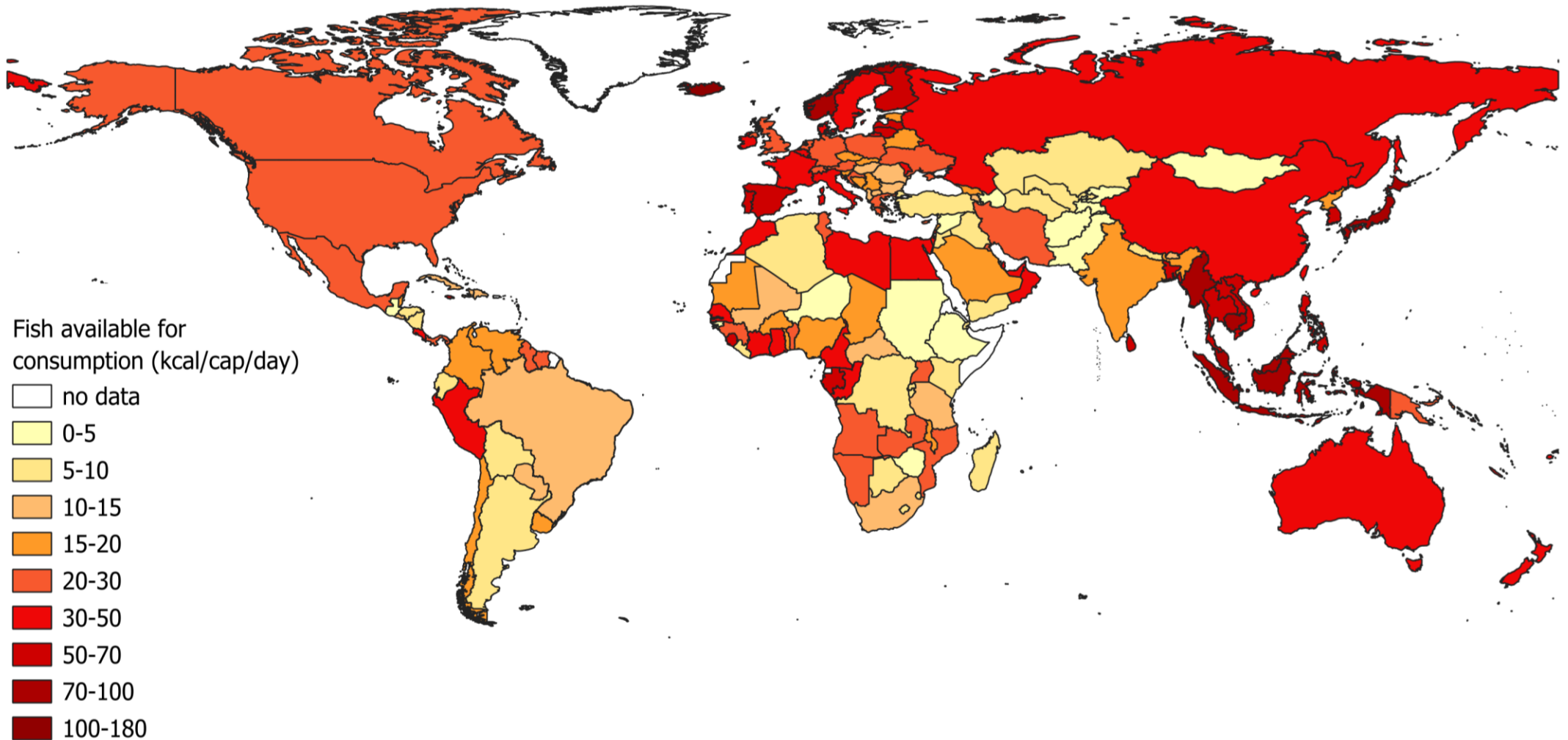
Dairy: Global Consumption Patterns

Per Capita Dairy Availability by Country (Kcal/cap/year, 2021)



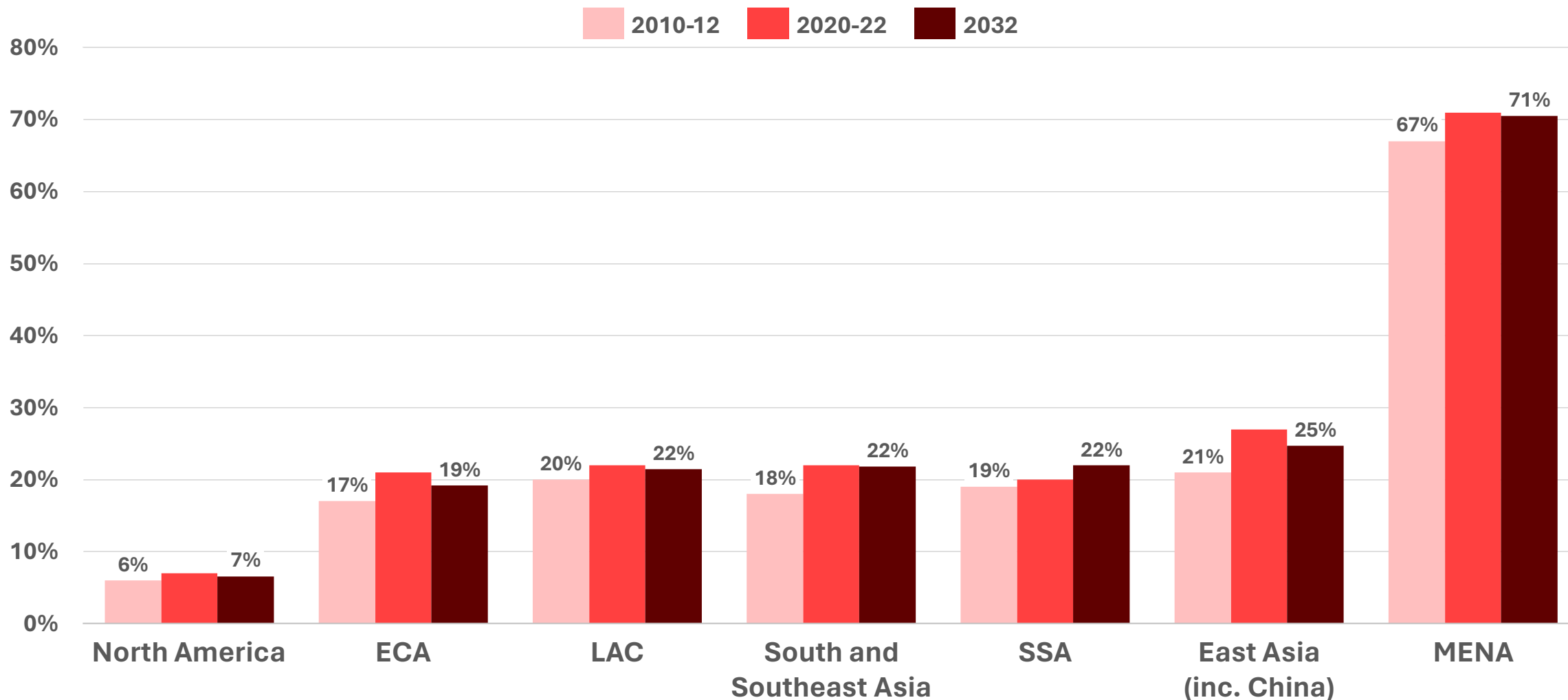
Fish: Global Consumption Patterns

Per Capita Fish Availability by Country (Kcal/cap/year, 2021)



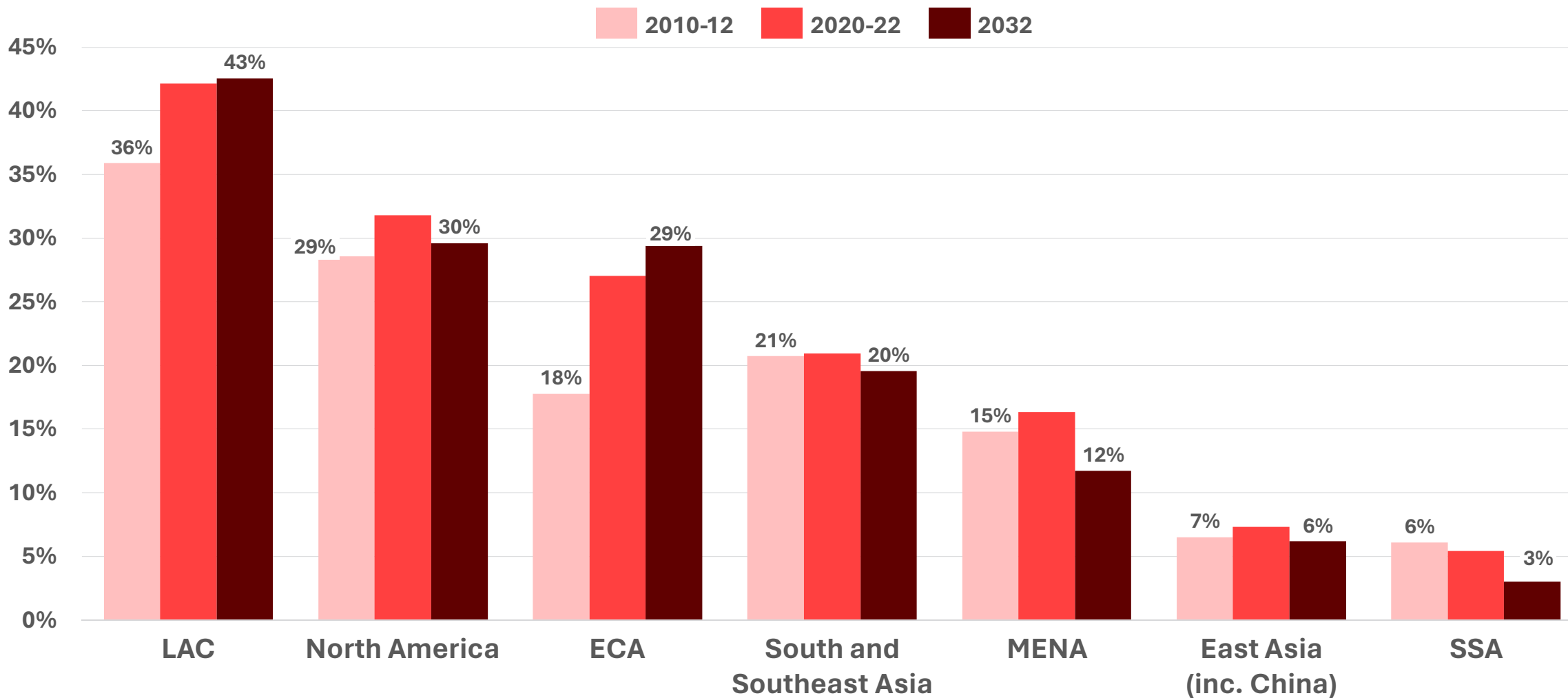
Food: Consumption Import Dependency by Regions

In percentage of total value (in calorie equivalents), between 2010 and 2032



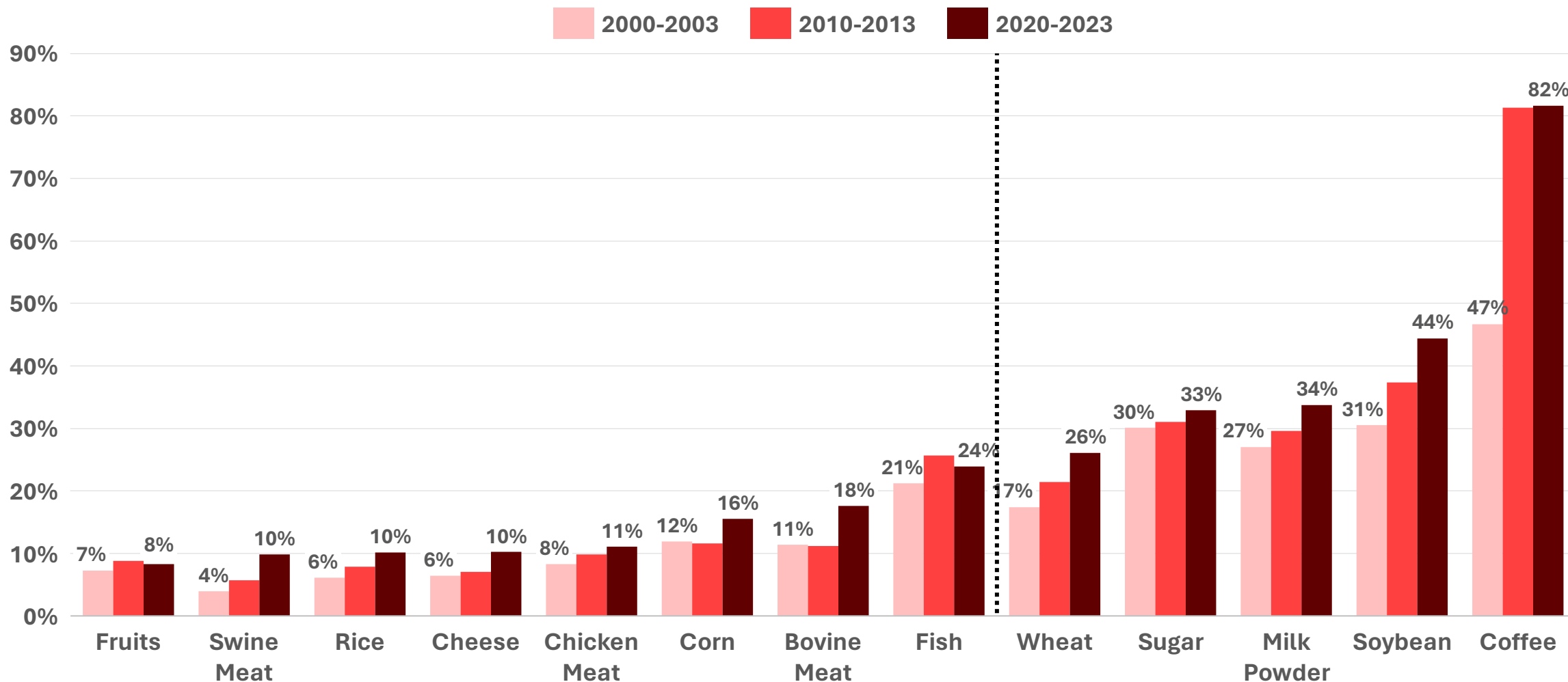
Evolving Export Contributions Across Regions

Actual and Projected Agricultural Export Shares by Caloric Production Value, 2010-2032



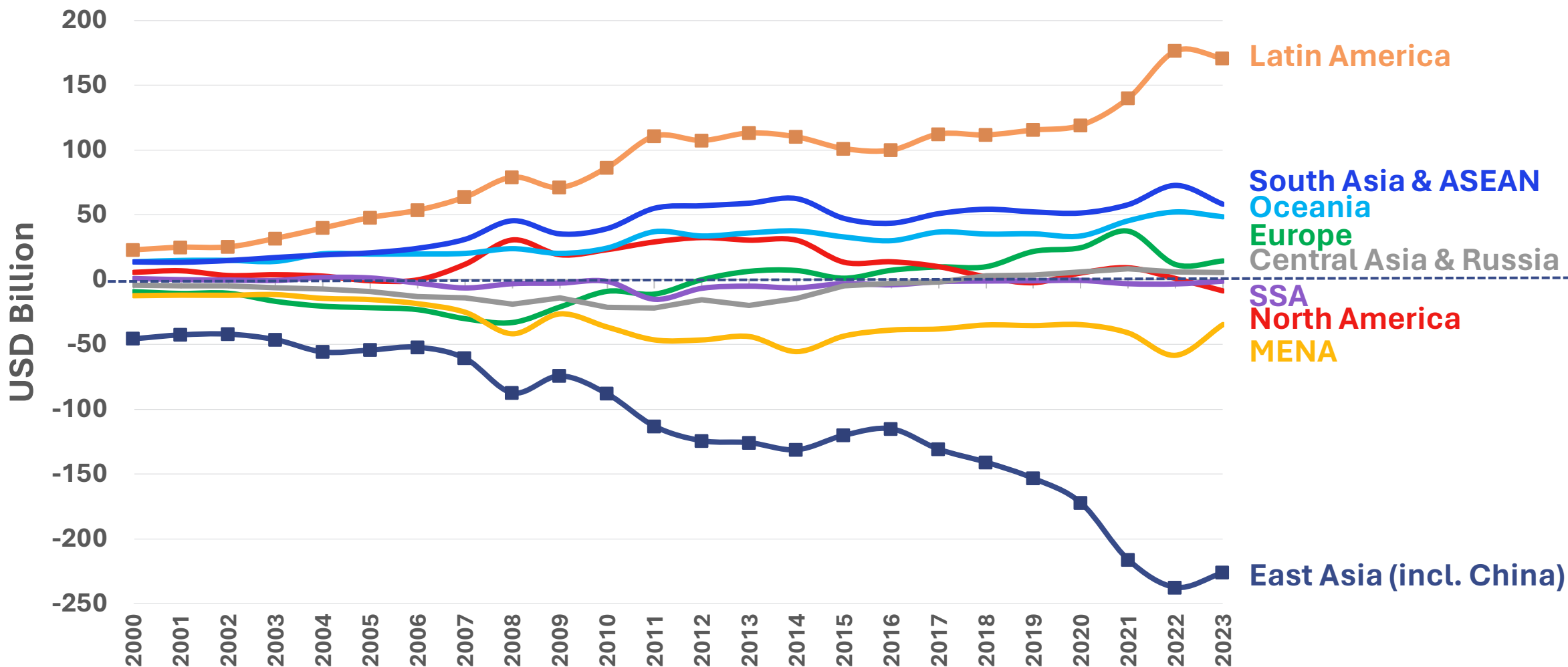
Commodity Groups: Global Import Dependency

Trends in Imports as a Percentage of Total Consumption, 2000-2023



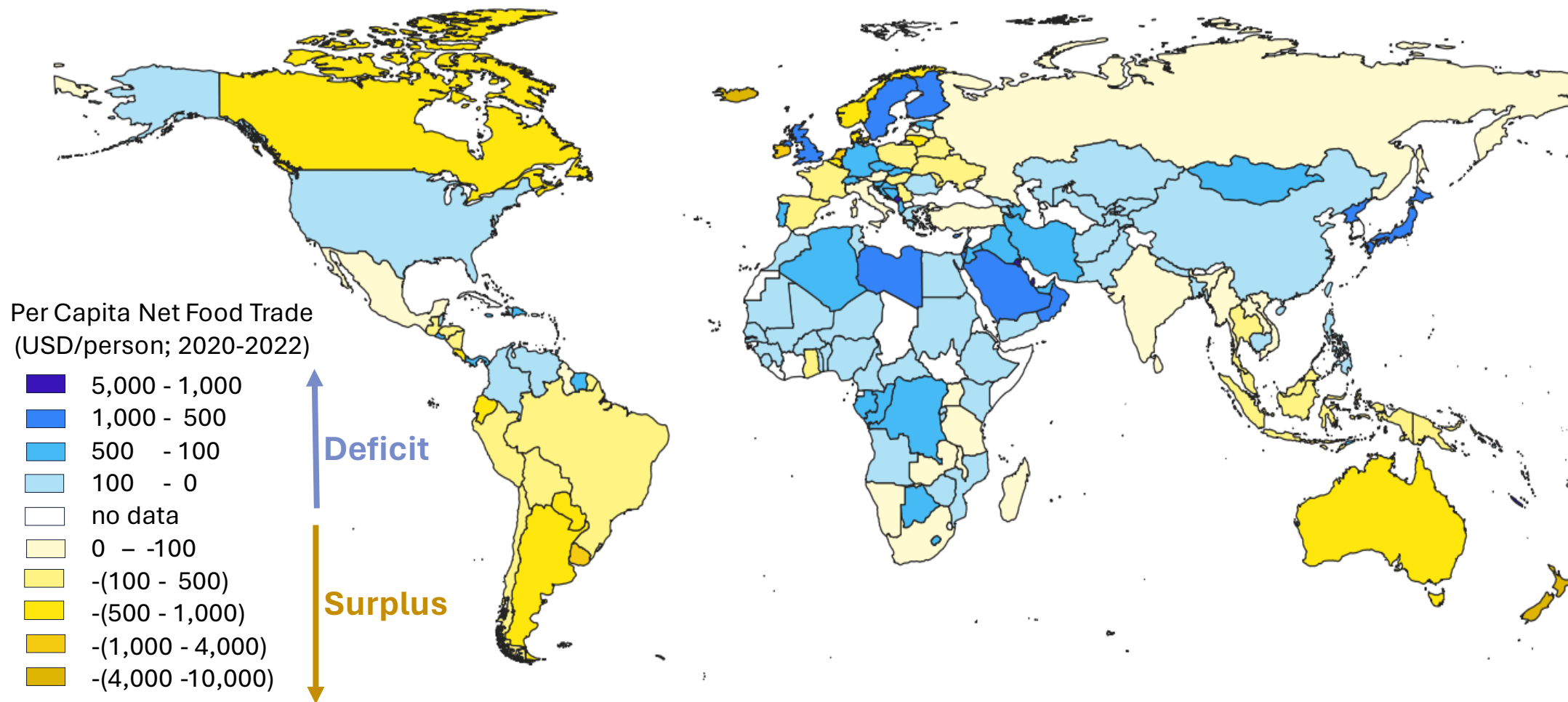
The New Geography of Global Food Trade Balances

Regional Agricultural Trade Balances (USD Billion, Constant Value)



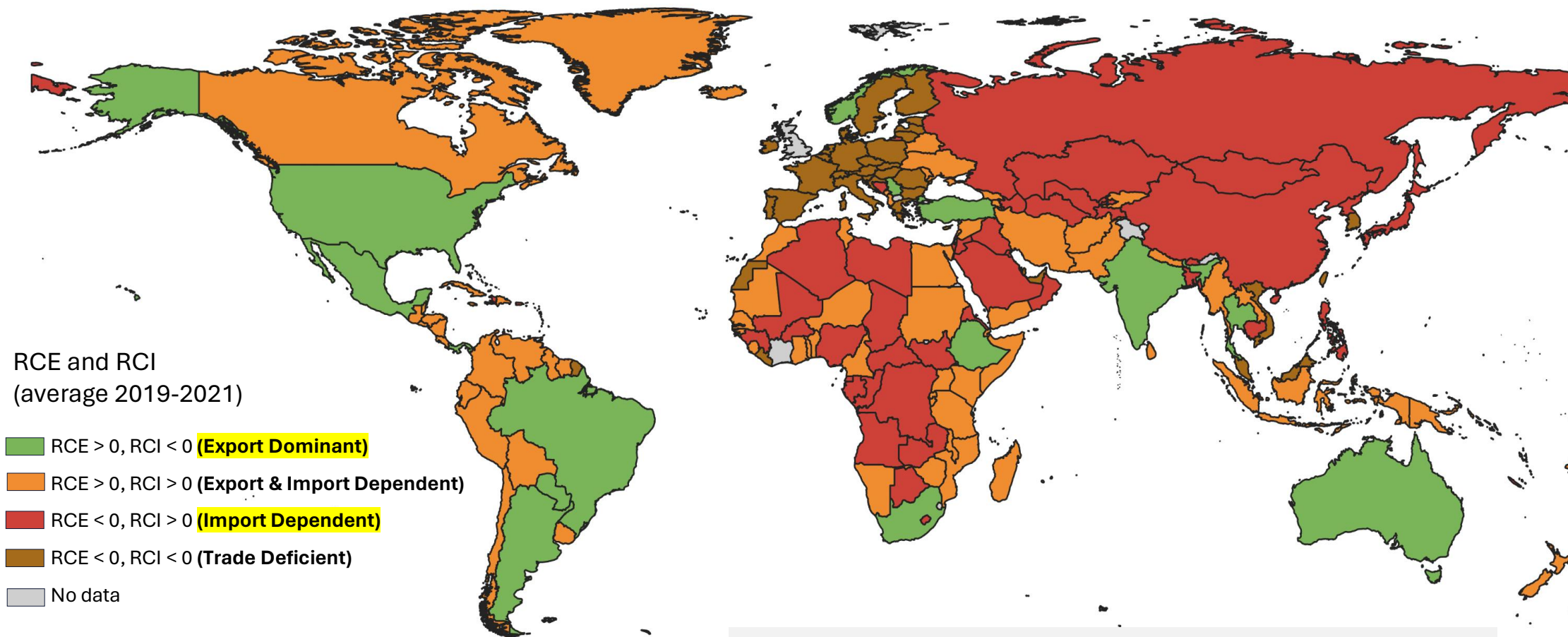
Trade Promotes Movement from Surplus to Deficit Regions

Per Capita Net Food Trade (USD/person; 2020-2022)



Global Trade Dynamics Reveal Opportunities in Export and Import Capacities

Complementarities between countries with greater export capacity (RCE >) and those more dependent on imports (RCI > 0)



RCE: Revealed Comparative Advantage for EXPORTS
RCI: Revealed Comparative Advantage for IMPORTS

POLICY RECOMMENDATIONS TO BOOST TRADE AND INCREASE GLOBAL FOOD SECURITY

**(Presented to the
G20 Working Group on Agriculture)**

*Including Selected Insights and Contributions from
the T20 Task Force 4 (Trade and Investment for
Sustainable and Inclusive Growth)*

1) Multilateral and Regional Agreements

- 1. Strengthen WTO's Central Role:** reaffirm WTO's crucial role in maintaining an equitable and sustainable trading system, including processes related to climate action and digital transformation.
- 2. Enhance WTO Dispute Settlement System:** aim for a more operational and effective WTO dispute resolution system
- 3. Complete Agricultural Negotiations:** finish talks on food security stocks, domestic support, and market access
- 4. Limit Export Restrictions in Emergencies:** seek agreements to facilitate exports of essential goods during crises.
- 5. Develop a Global Labeling System:** implement a unified international labeling system.
- 6. Enhance Trade Negotiations with Data Transparency:** enhance trade negotiations with transparent agricultural data and information sharing.
- 7. Engage in mutual recognition and equivalence of science-based measures for Sanitary and Phytosanitary (SPS) and Technical Barrier to Trade (TBT),** while reducing the prevalence of trade remedies.
- 8. Advancement of plurilateral agreements:** WTO must recognize that the single undertaking principle is no longer producing the necessary results and should promote parallel plurilateral tracks of negotiations as a second-best.
- 9. Building trade capacity in developing countries:** decentralize the WTO's technical assistance and training function from Geneva to different regions of the Global South.

2) National Trade Policies



1. **Reduce Trade Barriers:** reduce tariffs and non-tariff barriers for agricultural trade, streamline food supply logistics, and minimize trade-related costs
2. **Digitalization & Regulatory Convergence:** enhance digitalization on origin requirements and align sanitary standards to decrease trade costs and standardize technical and phytosanitary norms.
3. **Promote Comprehensive Trade Policies:** develop policies that support trade efficiency, health and safety standards, and environmental sustainability.
4. **Leverage Trade Agreements:** utilize preferential trade agreements to improve market integration and simplify rules of origin for better market access
5. **Environmental trade standards:** international cooperation and funding can address environmental concerns that lead to trade standards negatively affecting food trade.

3) Macroeconomic and Sectoral Policies



1. **Implement fiscal, monetary and exchange rate policies** which are crucial in determining the trade balance and balance of payments.
2. **Optimize the use of country's assets** by utilizing natural resources, technology, location, and human capital to improve market reach and efficiency.
3. **Promote technology and infrastructure upgrades** to boost productivity and resilience.
4. **Align subsidies and domestic aid with sustainable food security goals to minimize market distortions.**
5. **Strengthen national trade promotion** through technology enhancement and capacity building for SMEs for better access to global markets.
6. **Encourage environmental and sustainable standards** to foster green investments, sustainable practices, and address environmental issues affecting trade.
7. **Facilitate regional food trade** through agreements, infrastructure investments and common standards.
8. **Adopting a uniform concept and position for Sustainable Food Systems (SFS)** to promote international trade involves providing financial assistance to achieve it

THANK YOU

Collaborators

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