

# Medium-term Agricultural Trends and Prospect

4<sup>th</sup> Annual ReNAPRI Stakeholder Conference  
***Unfolding Agricultural Transformation in Africa:  
Strategies for Sustainable Development***

**Holger Matthey**

Team leader – Medium-term Outlook and Market Analysis  
*Trade and Markets Division (EST)*

FAO

# Forward looking analyses



- Forward-looking policy and market analyses to support evidence-based policymaking
- Promote and foster a model-based dialogue on global prospects for food and agriculture among policymakers, industry and academia
  - Baseline
  - Scenario analyses

# Key macroeconomic assumptions

- Global population growth slow down to 1% p.a., but strong regional differences remain
- Economic recovery in most industrialized countries, but growth prospects in large emerging countries diverge
- Real currency appreciation expected in major exporters
- Crude oil reference price rising from \$44 to \$90

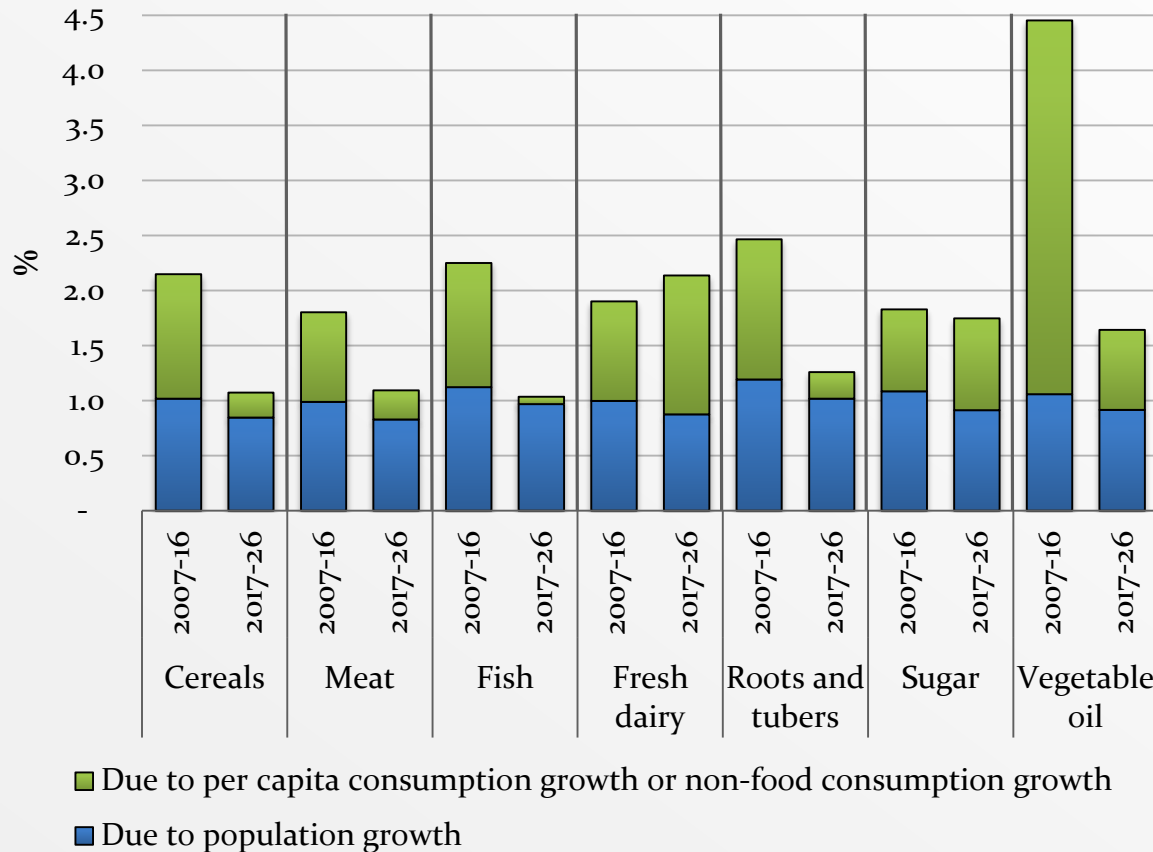
# Consumption Outlook

## Main Messages

- Global consumption continues to expand and evolve toward higher value commodities
- Growth will slow down compared to previous decade
- China, India and Sub-Saharan Africa drive global growth
- Convergence in per capita food consumption patterns remains limited

# Consumption by commodity

Annual growth in demand for key commodity groups,  
2007-16 and 2017-26



**Global consumption growth slows down**

Total demand mainly driven by population growth

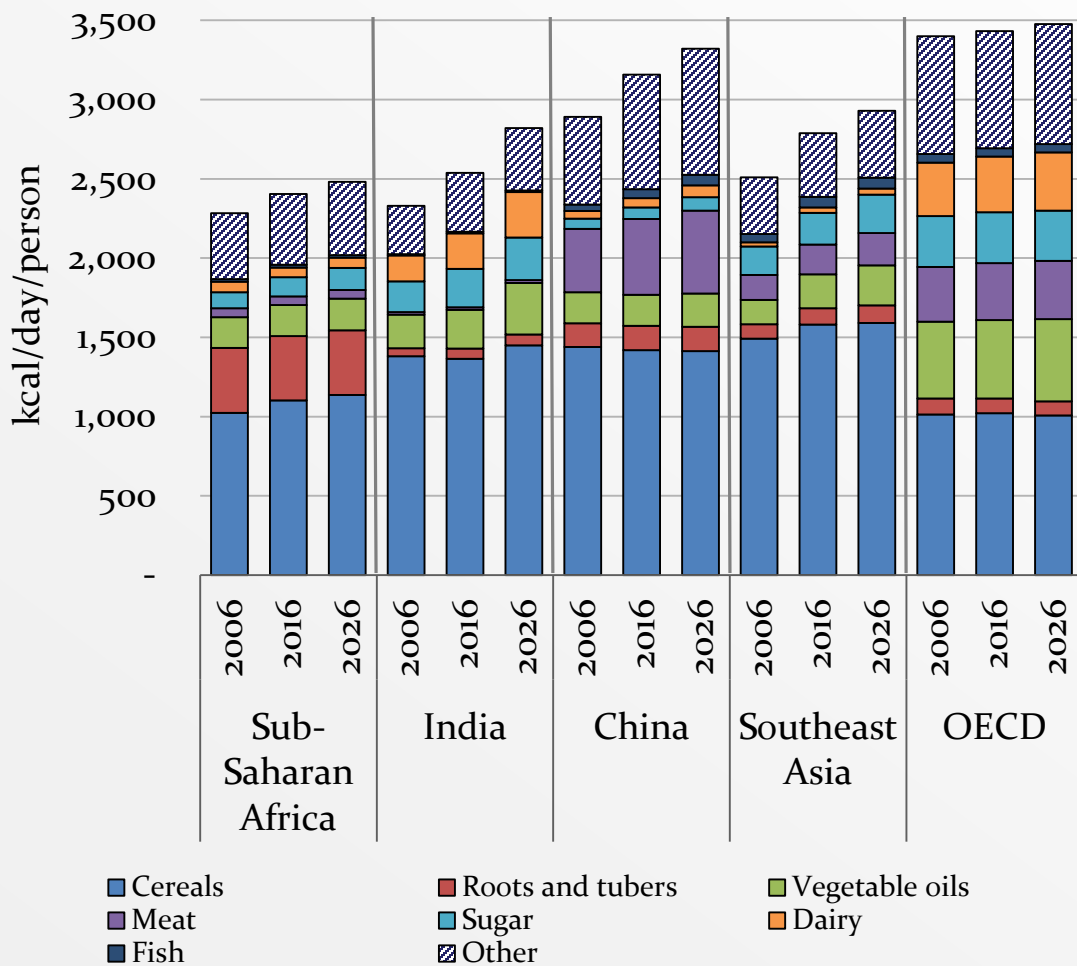
Per-capita food demand limited by:

- Saturation
- Access

For fresh dairy products, vegetable oil and sugar strong per-capita increase expected

# Calorie consumption per capita

Per capita caloric availability in 2006, 2016 and 2026



## Increasing trend in caloric availability per capita to continue

- Bridging caloric availability levels between developing countries and OECD
- China reaches the overall level of the OECD caloric availability.
- India makes substantial progress

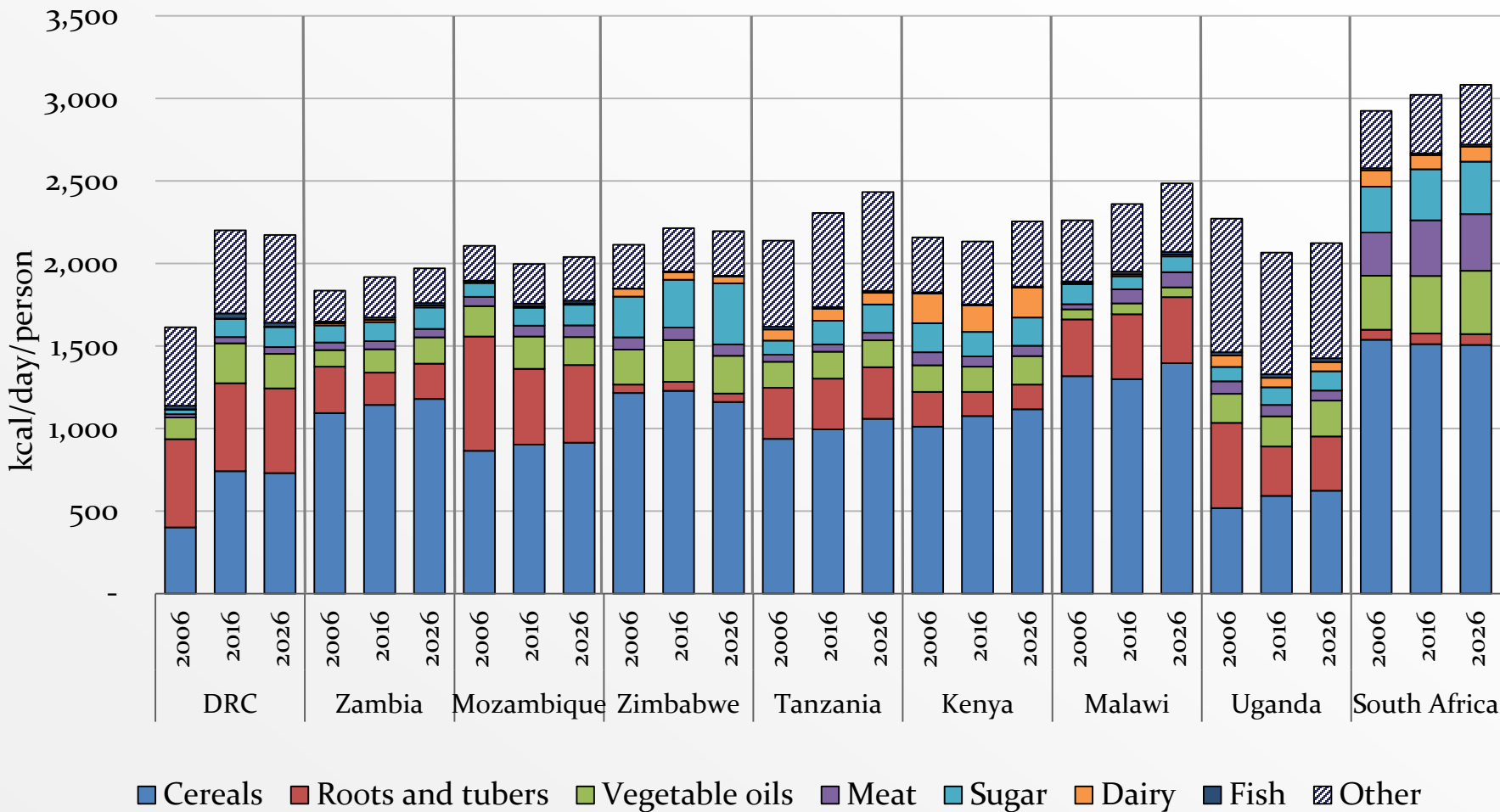
Cereals remain to be the most important source of calories across the world.

Bulk of additional calories from sugar and vegetable oil

Dietary preferences persist and influence nutrition patterns

# Calorie consumption in ReNAPRI countries

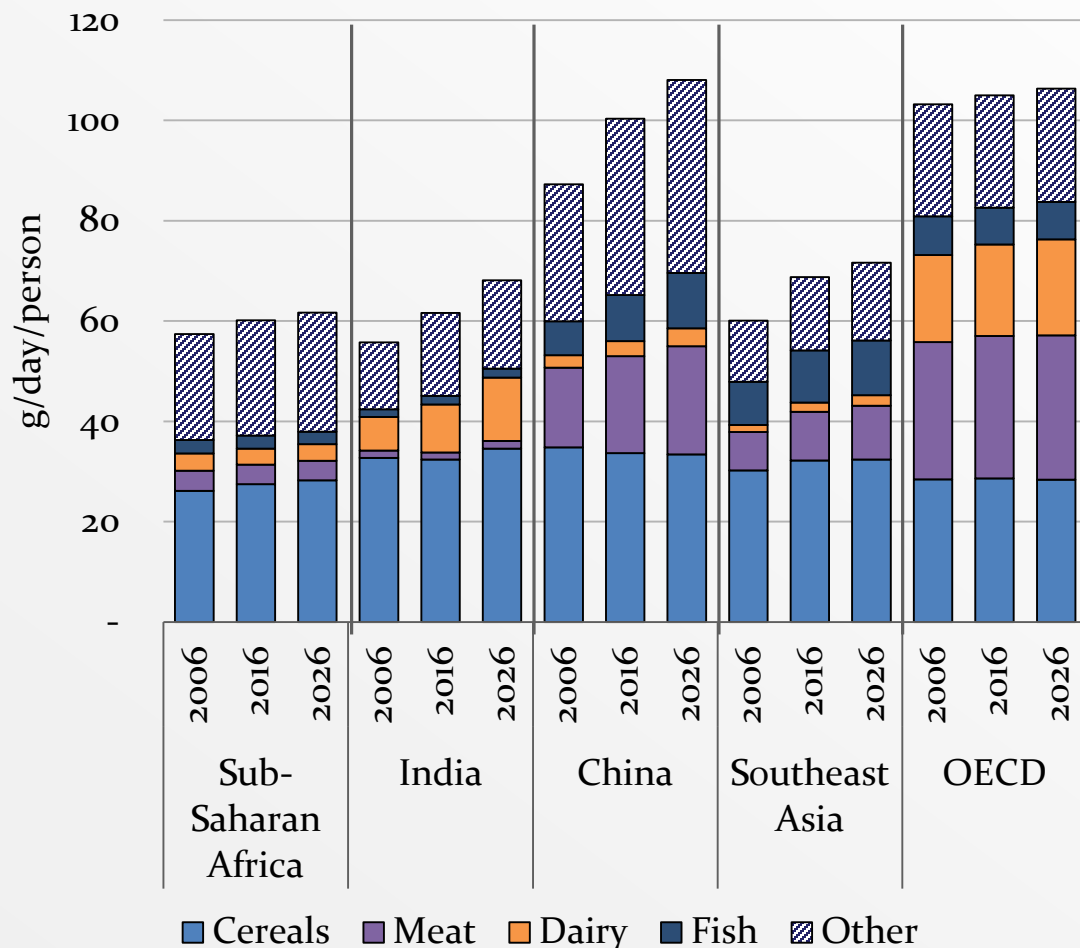
Per capita caloric availability in 2006, 2016 and 2026





# Protein consumption per capita

Per capita protein availability in 2006, 2016 and 2026



## Protein availability remains diverse

Key difference is the level of animal protein consumption between regions

- low levels in Sub-Saharan Africa, India, and Southeast Asia

In India, main animal protein is coming from the fast expanding fresh dairy product consumption

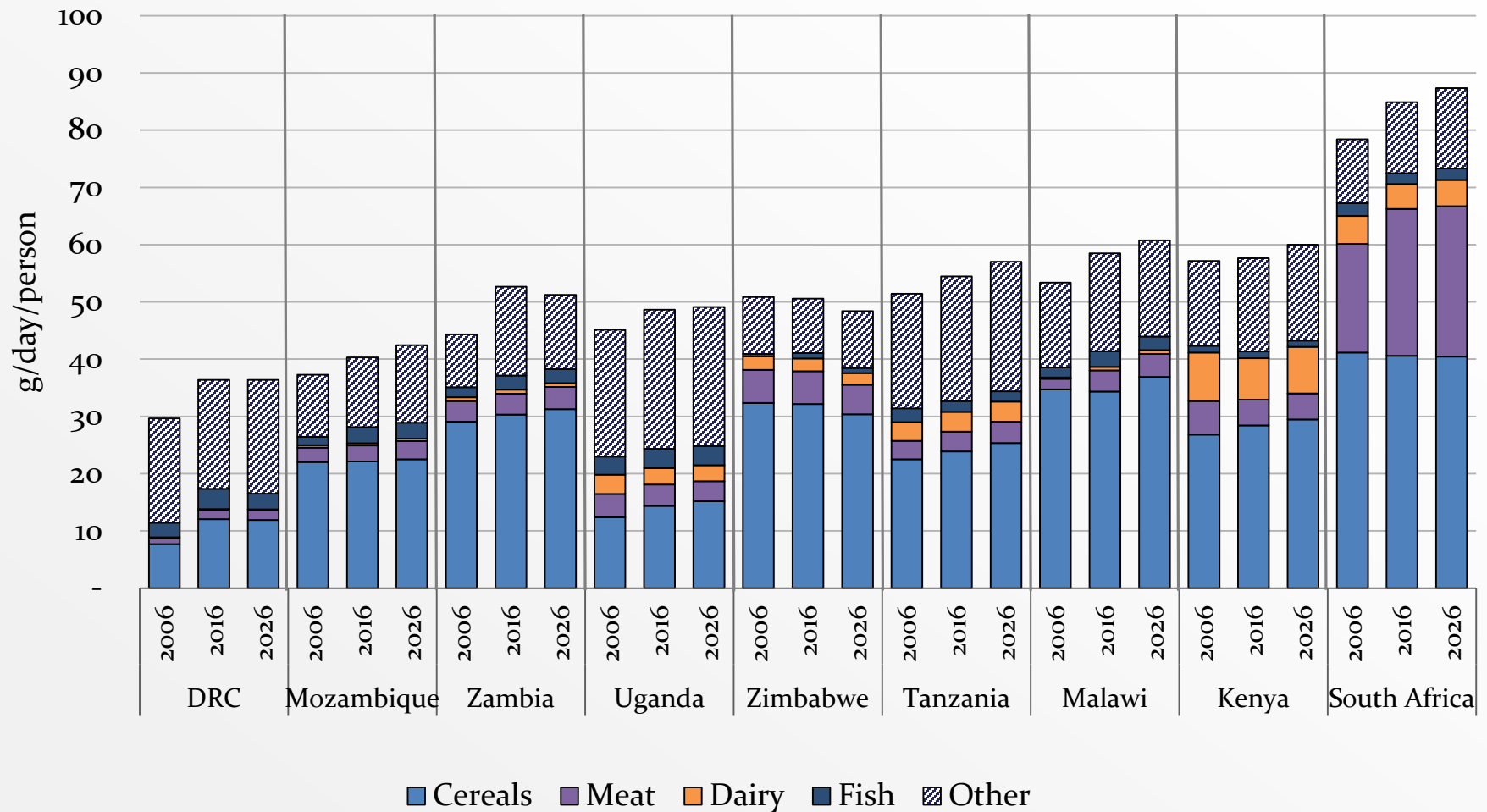
In Southeast Asia, fish consumption is important

Limited income growth in poor rural and urban households and the slow development of a retail infrastructure for animal protein are seen as the main constraints to animal protein consumption growth



# Protein consumption in ReNAPRI countries

Per capita protein availability in 2006, 2016 and 2026



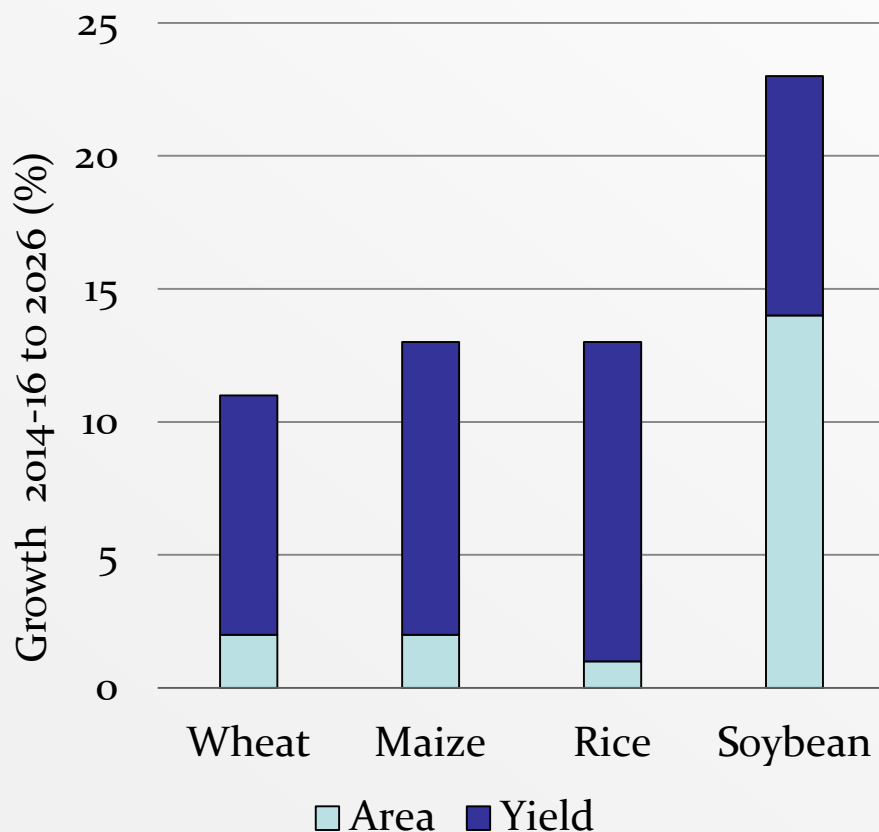
# Production Outlook

## Main Messages

- Yield growth will be the main driver of food crop and feed production
  - Growth due to 80% yield and 20% land
- Diverse growth in livestock and fish production
  - Intensive and extensive production systems coexist
- Developing countries lead the agricultural production growth

# Crop production

Relative growth shares of area and yield



## Yield improvements main driver of crop production growth

### Wheat:

- 9% yield growth
- 2% net area gain (4 million ha) mostly in in Russia and India

### Maize:

- 11% yield growth, large yield gap remains,
- 2% area growth (4 million ha), all in Africa and Latin America

### Rice:

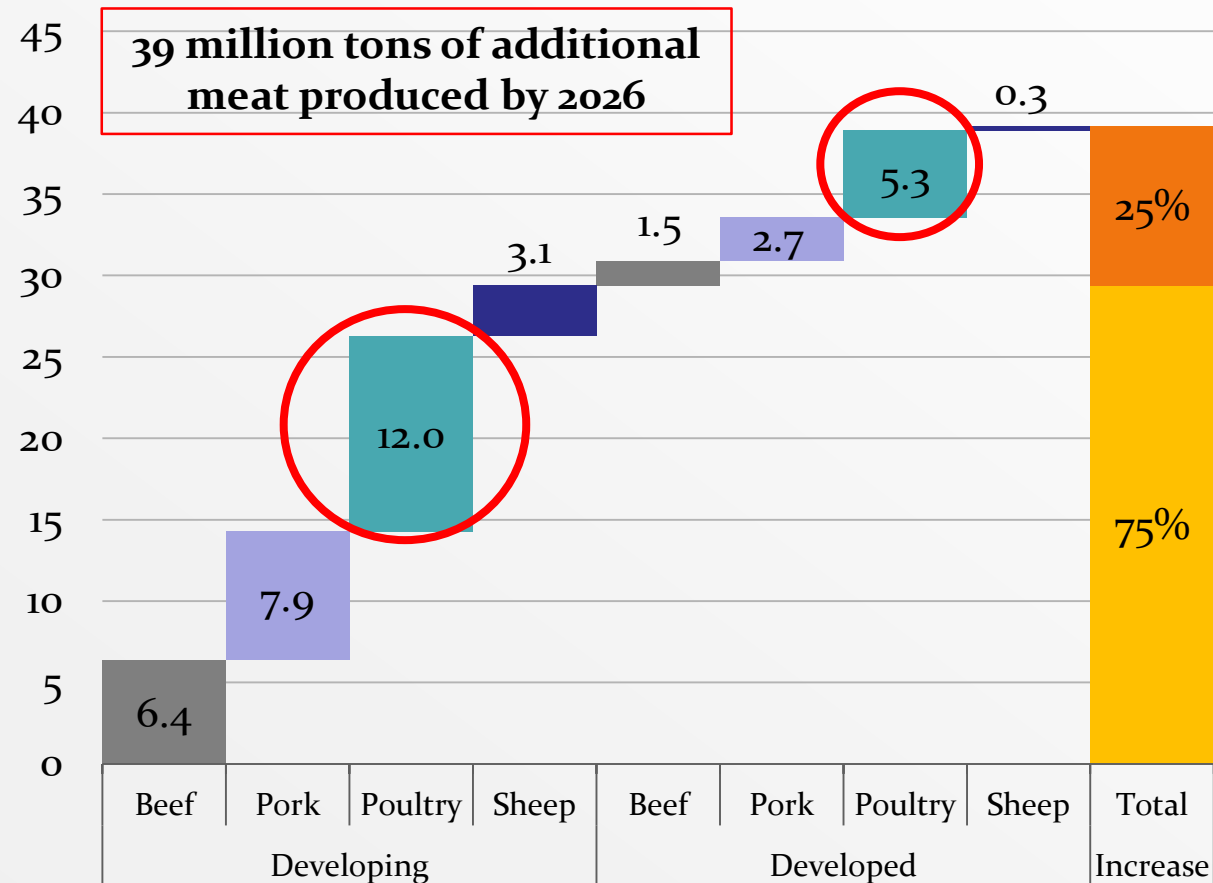
- 12% yield growth,
- small net area gain globally (2 million ha), shift into LDC with low yield base

### Soybean:

- 9% yield growth, yield gap small and closing,
- 14% area net growth, 16 million ha,

# Meat production

Mt (c.w.e / r.t.c)



**Total meat**, 13% growth globally

46% of it in **poultry**, becoming leading meat

**Pigmeat** production expansion slowed by increased environmental regulations and animal welfare concerns

**Beef** production expands in Argentina, China, Brazil, India

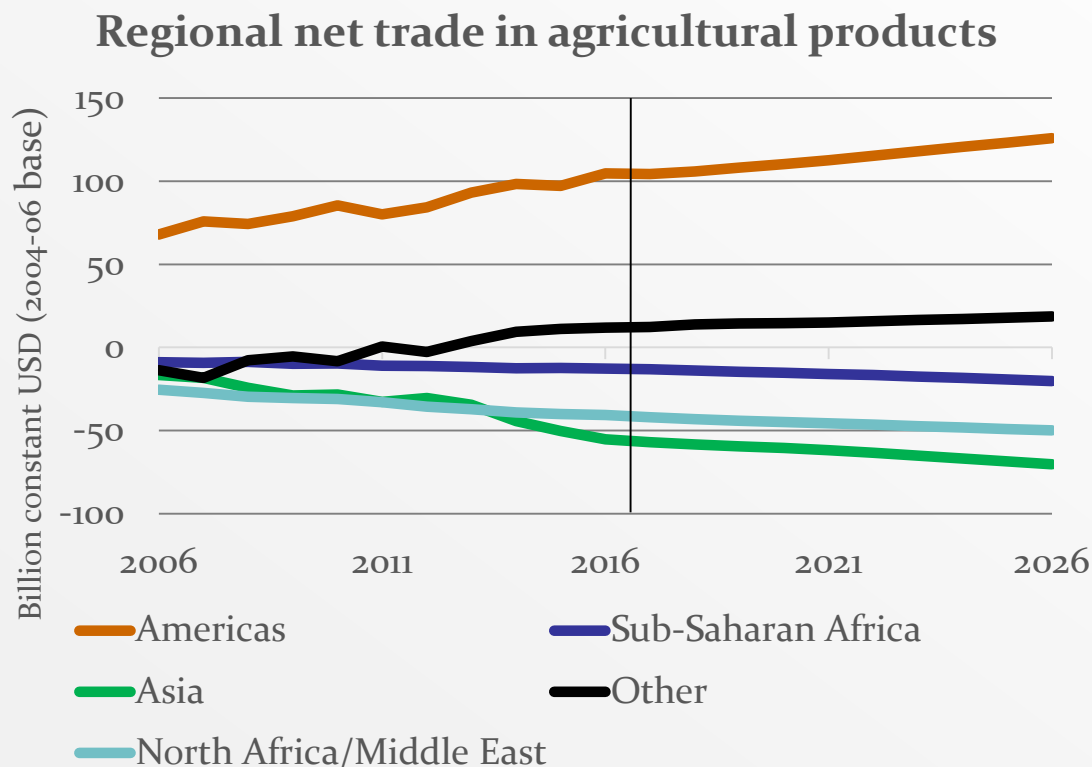
**Sheepmeat** sector global growth of 22%, faster than last decade

# Trade Outlook

## Main Messages

- Growth in trade is closely matched with output growth in the coming decade
- High concentration in export markets persists
- Growing import demand from developing countries
- Role of trade continues to differ by commodity

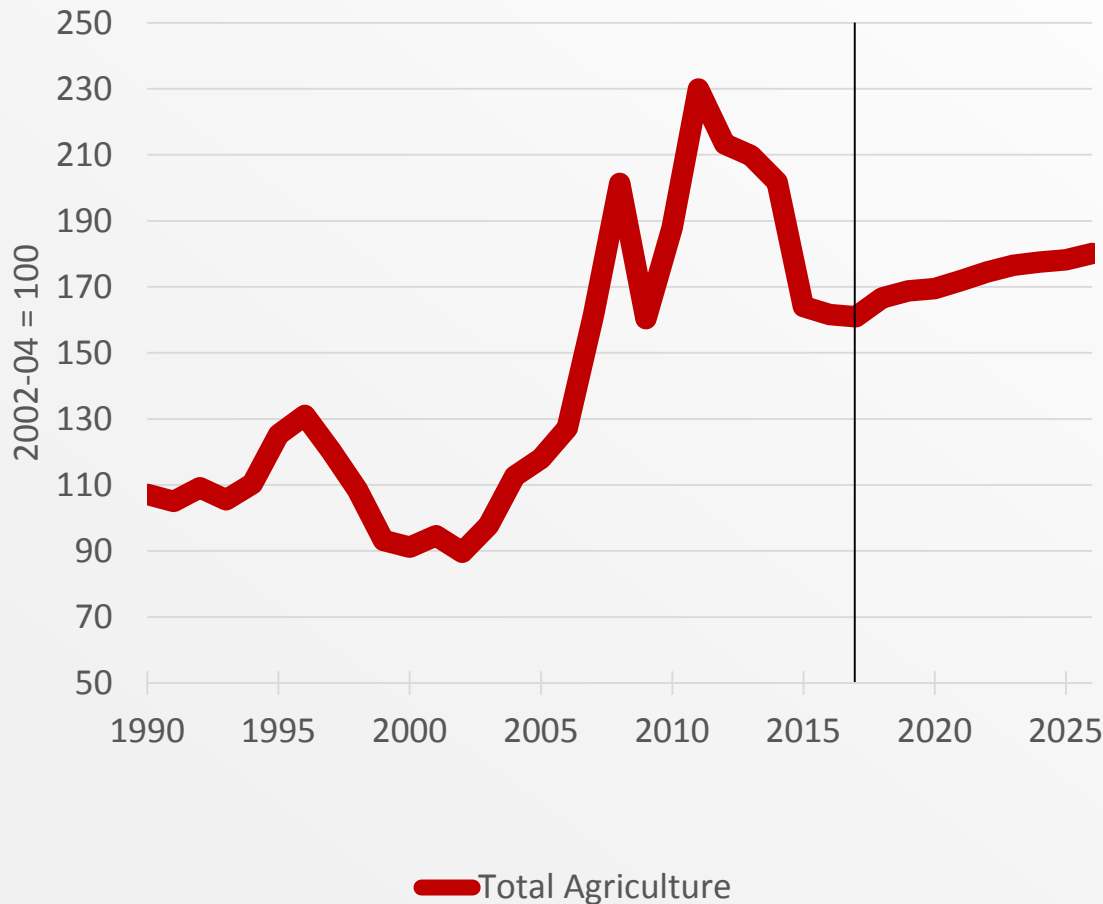
# Trade by region



- The Near East and Africa increasingly dependent on agricultural imports
- Eastern Europe and Central Asia region now established as main exporter, due to high exports of cereals
- Trade flow evolution reflects economic and political developments in the context of natural resource constraints

# Projections of commodity prices

Projected FAO Food Price Indexes - Nominal



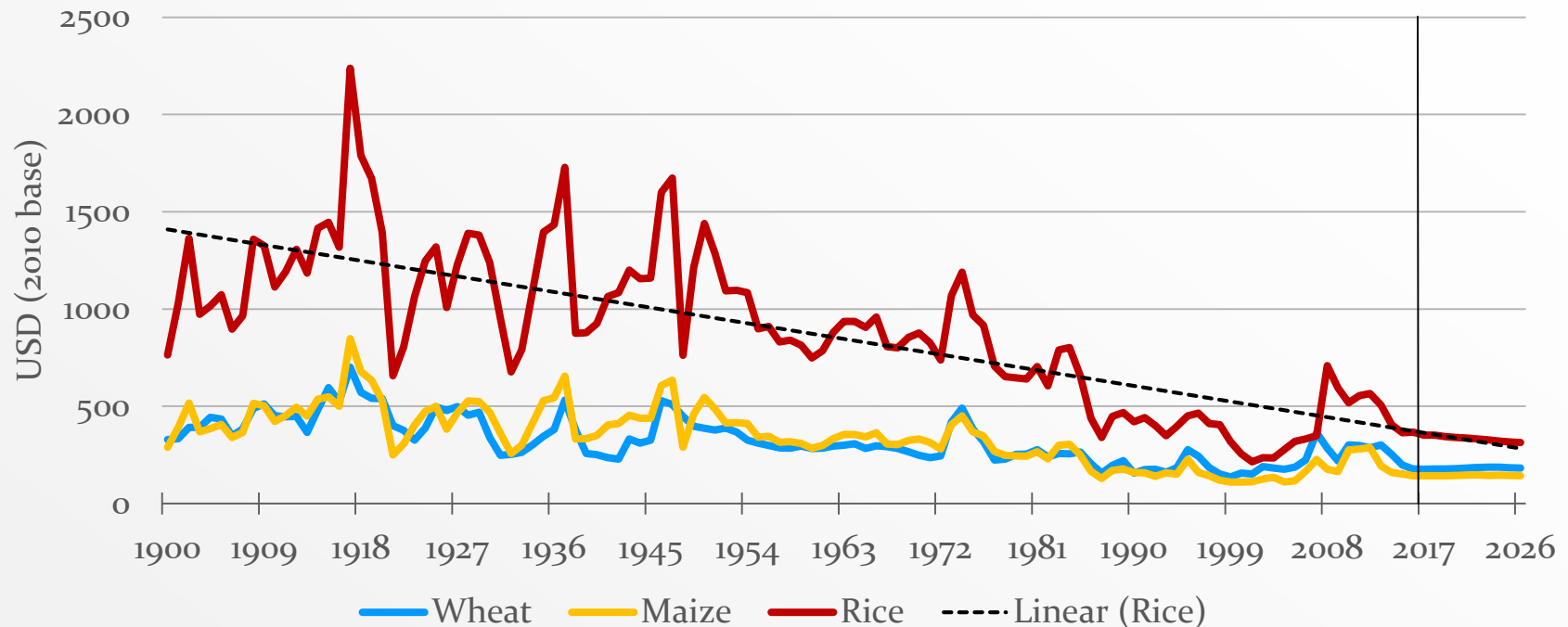
Supply and demand fundamentals keep international reference prices in line with inflation

Most commodity group prices follow similar trends due to substitutability and complementarities

Meat prices have historically followed a somewhat different path, meat prices are expected to fall in real terms to levels similar to those in the early 2000s



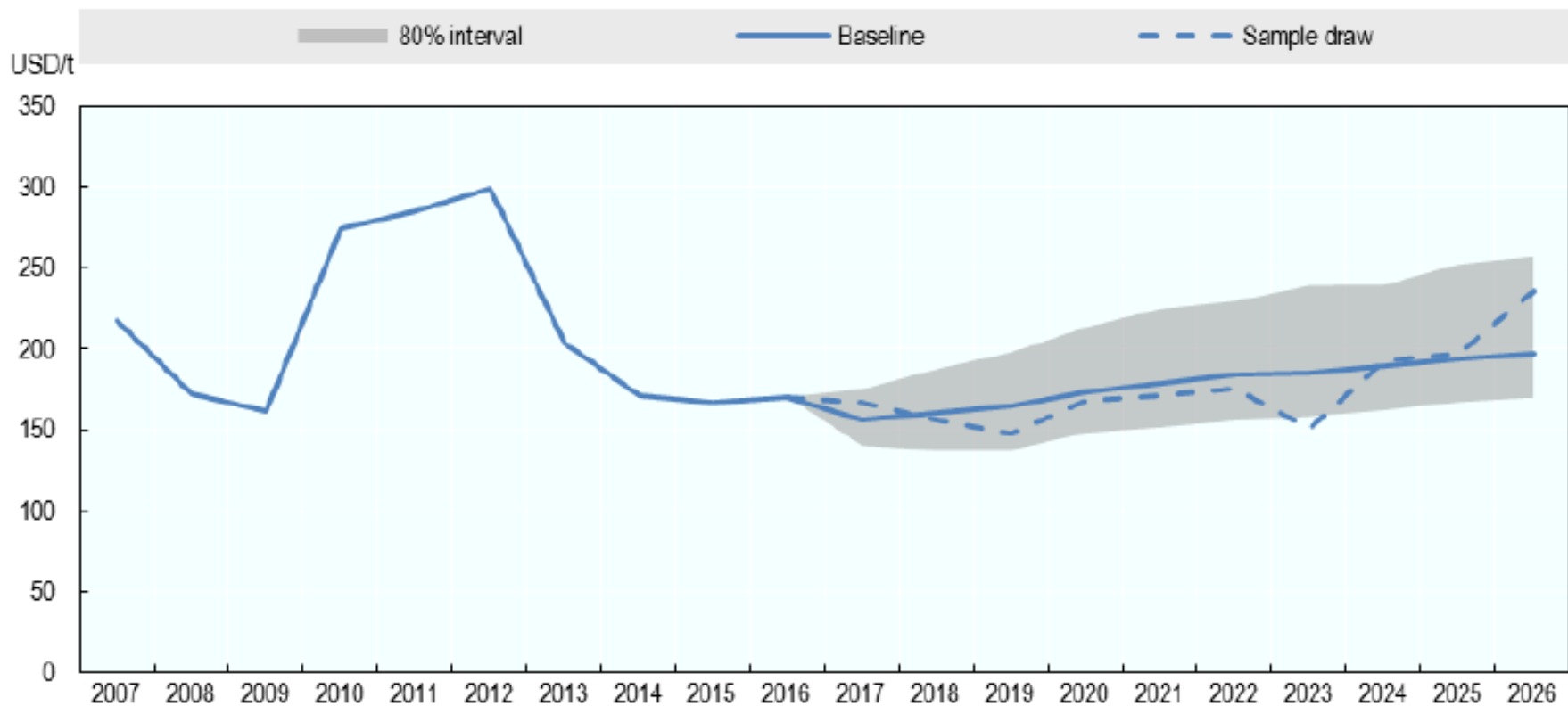
# Long term trend of real cereal prices



- Prices follow the long run declining trend, with an average price decrease of about 1.5% per year in real terms
- Prices of agricultural commodities are subject to considerable volatility and may show large deviations from their long-term trends for an extended period of time
- Prices eventually returned to their long-term trend

# Stochastic analysis

Figure 1. Uncertainty around the nominal world maize price



# Key takeaways and policy challenges

## Consumption

- Slowing demand growth
- Few sources of demand to replace China & biofuels
- Rising demand for milk, sugar and oils

Policies to combat malnutrition

## Trade

- Trade growth to slow
- Main cause is weak demand
- Export trade to remain concentrated

Need for open and reliable markets

## Production

- Output gains mostly from yield increases
- Important sustainability challenges – esp. in SE Asia
- Big yield gaps in poorest countries

Invest in sustainable productivity growth

## Prices

- Real prices at or below current levels
- Always a risk of specific price swings!

Market information and risk management

Download the publication from:  
<http://www.fao.org/publications/oecd-fao-agricultural-outlook/2017-2026/en/>

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[est-projections@fao.org](mailto:est-projections@fao.org)



# Thank You