

Food Security, Food Prices and Emerging Challenges for Sustainable Development

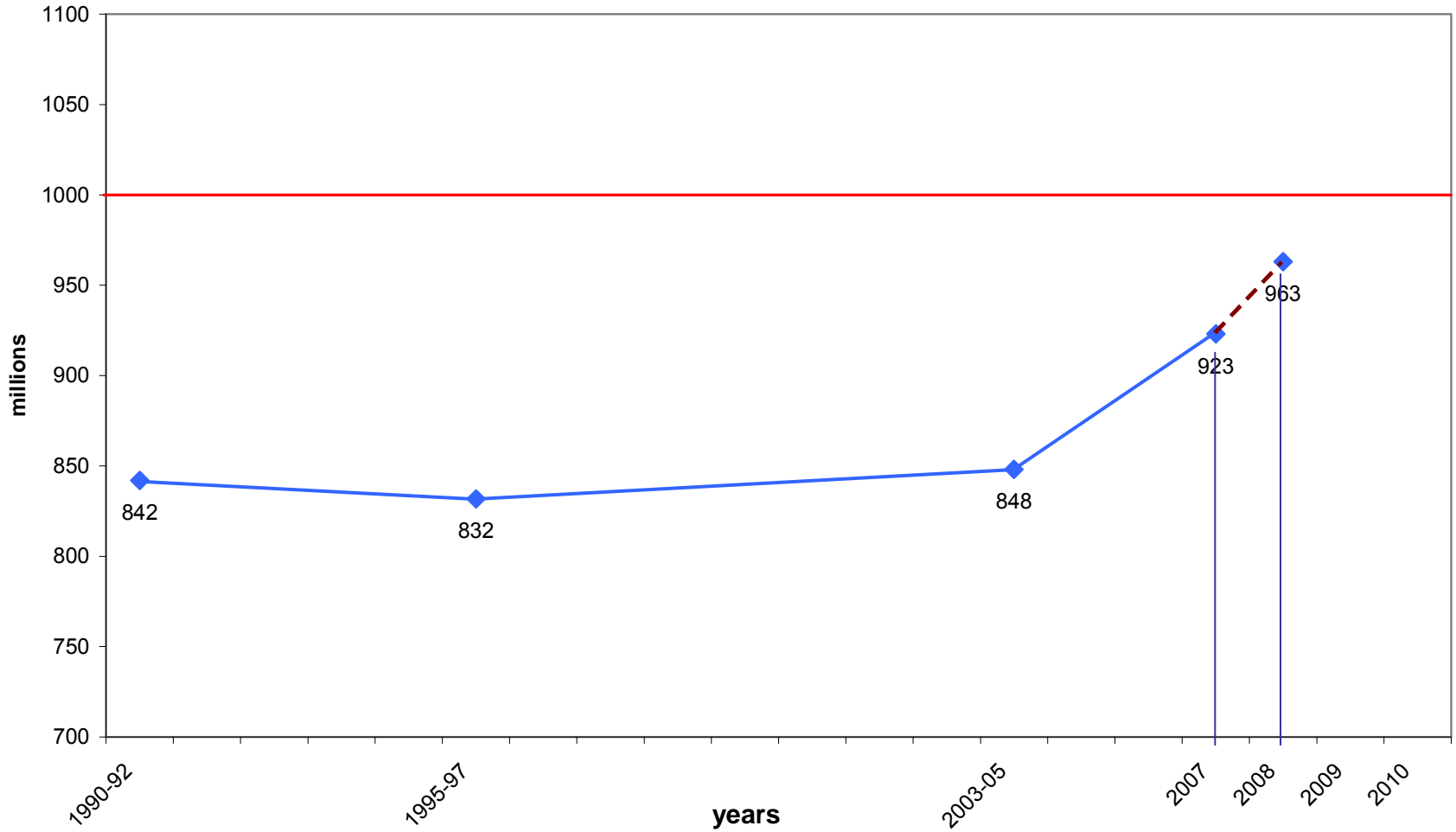
**Alexander Mueller, Assistant Director-General
Natural Resources Management and Environment Department
FAO presentation
at the CSD 17 High Level Segment Roundtable on
“Responding to Food Crisis through Sustainable Development”
13 May 2009**





The number of undernourished is increasing

numbers of undernourished in the world 1990-92 to 2008 (millions)



Source: FAO

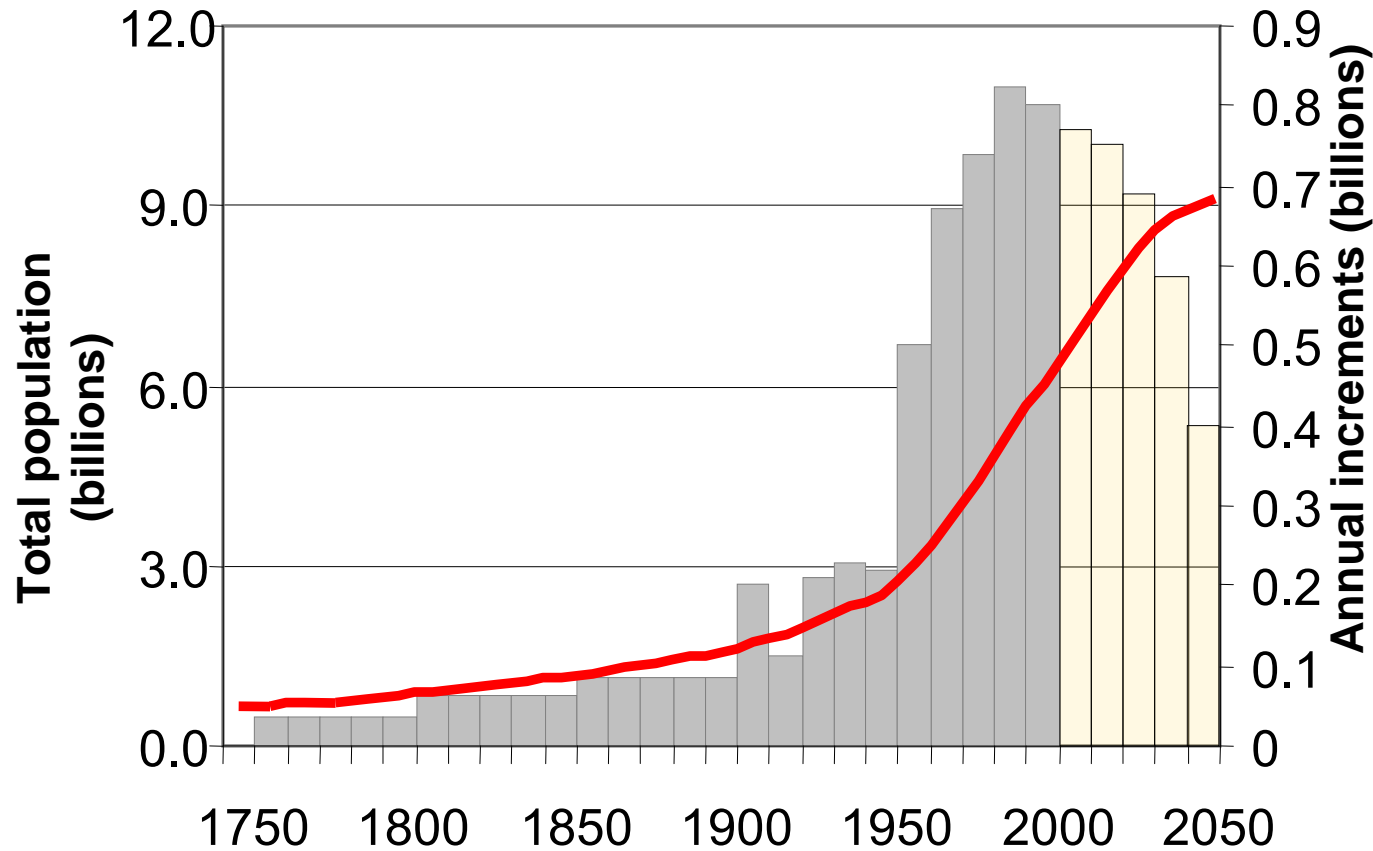
--- Preliminary est.





The main drivers of the long-term outlook

World Population Growth

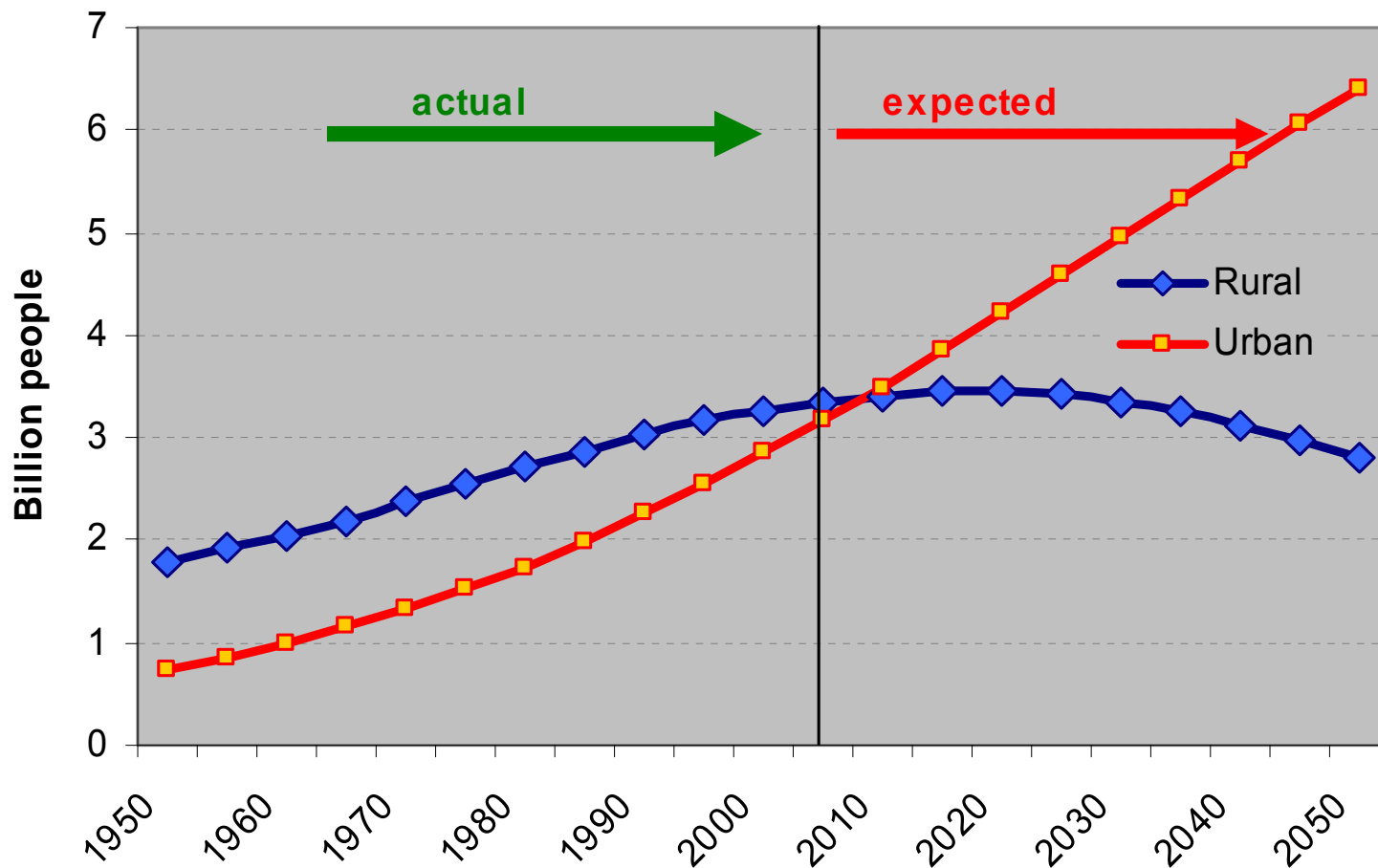


Source: UN, World Population Assessment 2006





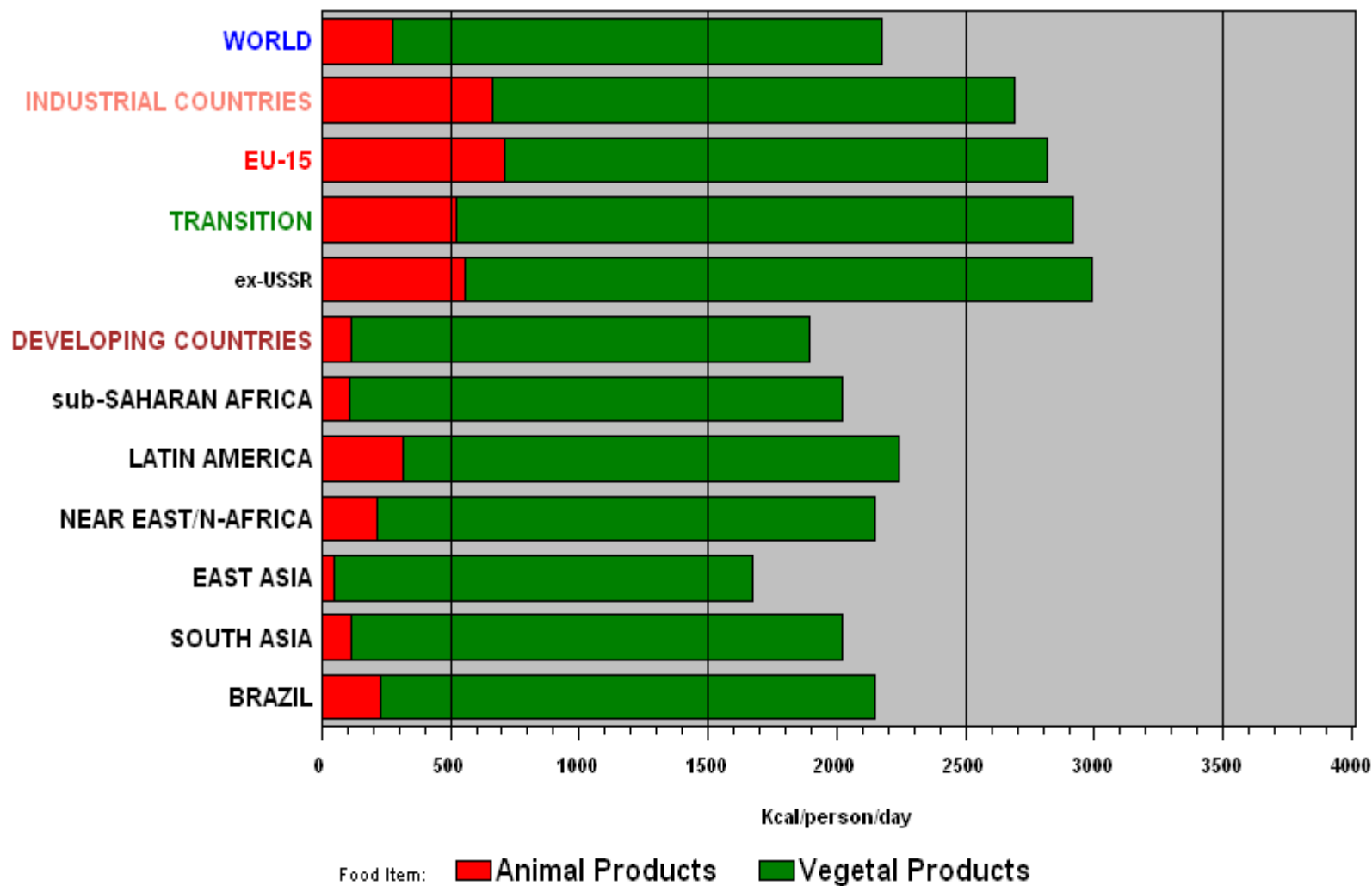
Urbanization to accelerate globally



Source: UN, World Population Assessment 2007

Calories from Crops and Animal Origin: 1961 - 2030

1961

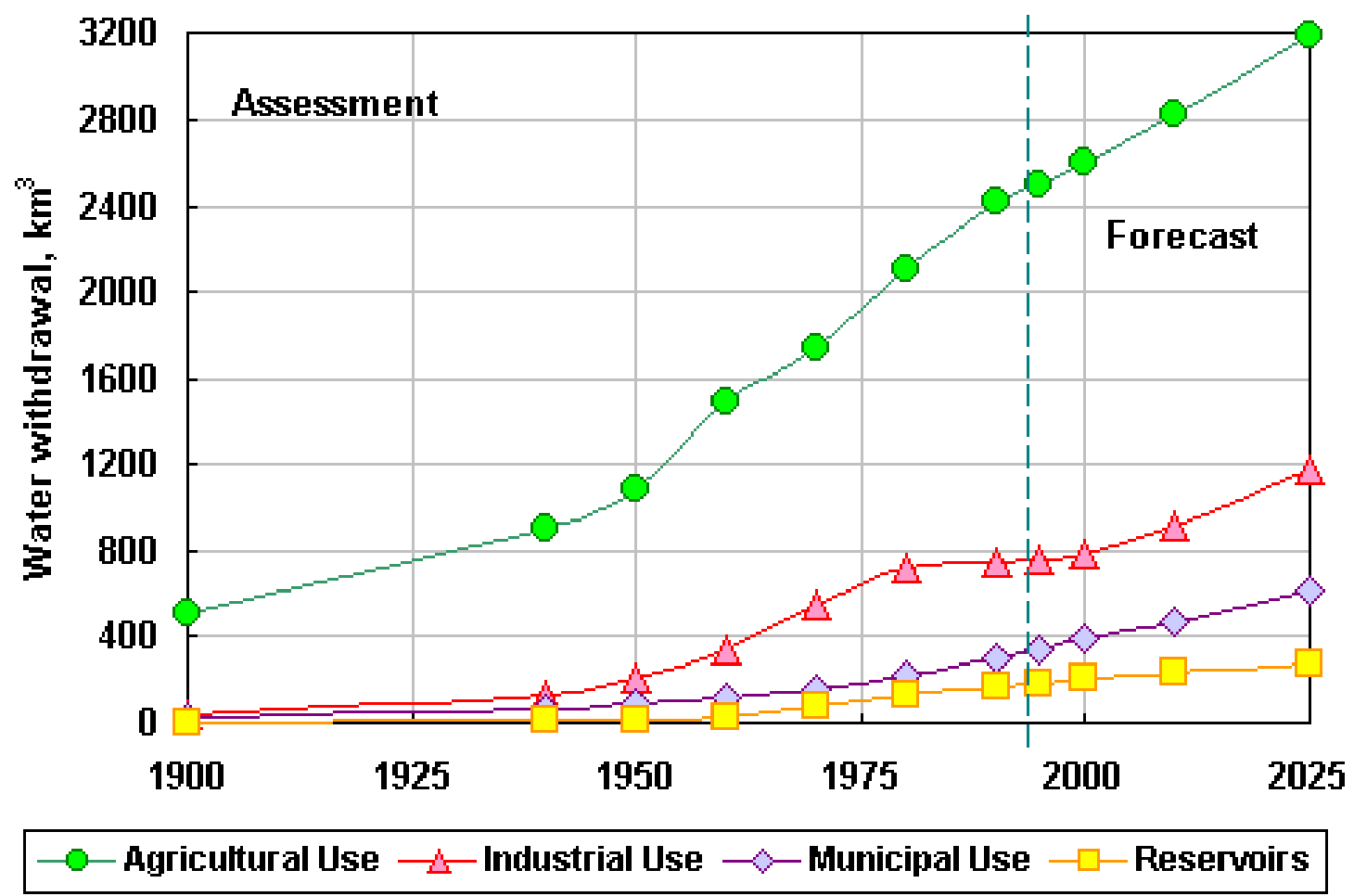


Source: FAO, Global Perspectives Studies Group
Josef Schmidhuber(2006)





World



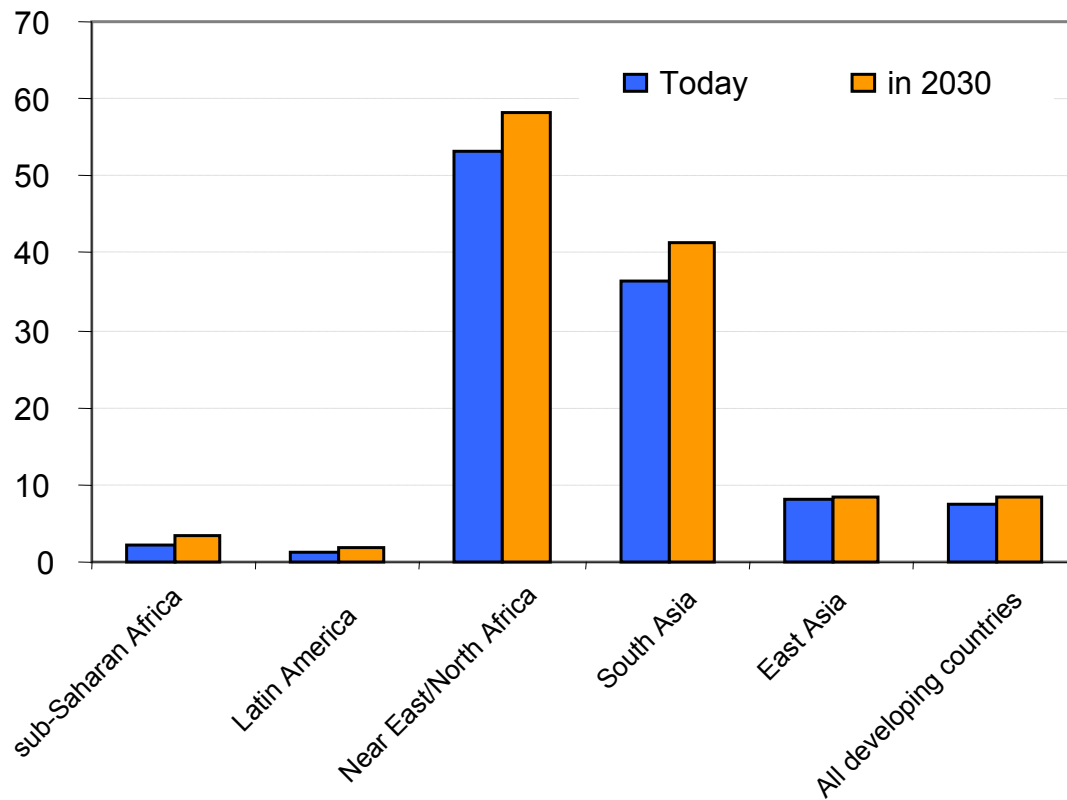
A few numbers

- Water needed to produce:
 - 1 kilo of wheat: 1 000 litres
 - 1 kilo of meat (beef): up to 15 000 litres
- Daily water requirements per person:
 - Drinking: 3-5 litres
 - Domestic needs: 20–300 litres
 - Food: 2 000-3 000 litres
- with 2 500 litres of water, we can produce:
 - food for one person for one day
 - 1 litre of biofuel



Is there enough water?

Irrigation water withdrawal as a share of renewable water resources (%)

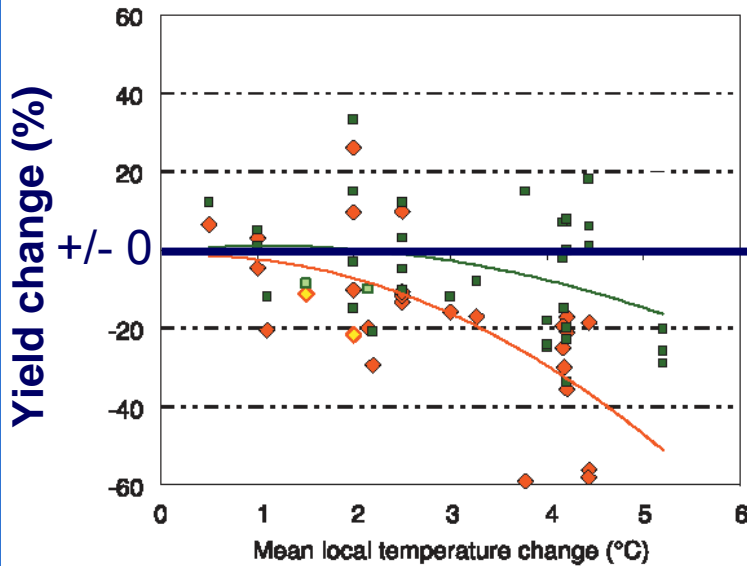


Source: Global Perspective Studies Unit, FAO

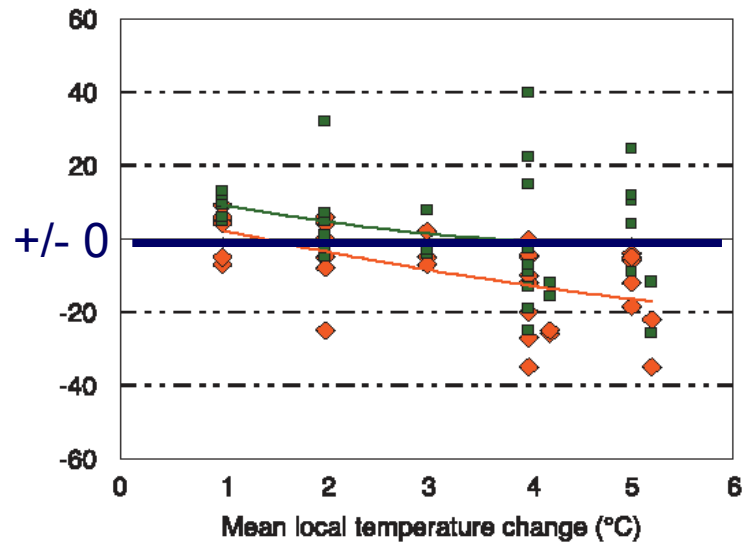


Climate change impacts

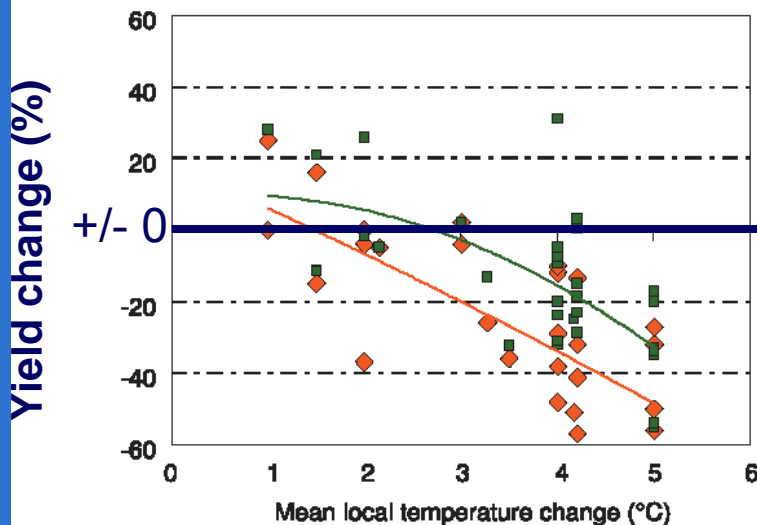
(b) Maize, low latitude



(f) Rice, low latitude



(d) Wheat, low latitude



Δ Yield as function of temp, rainfall, CO₂, adaptation)

With adaptation (changes in planting and cultivar, shifts from rain-fed to irrigated conditions)

Without adaptation

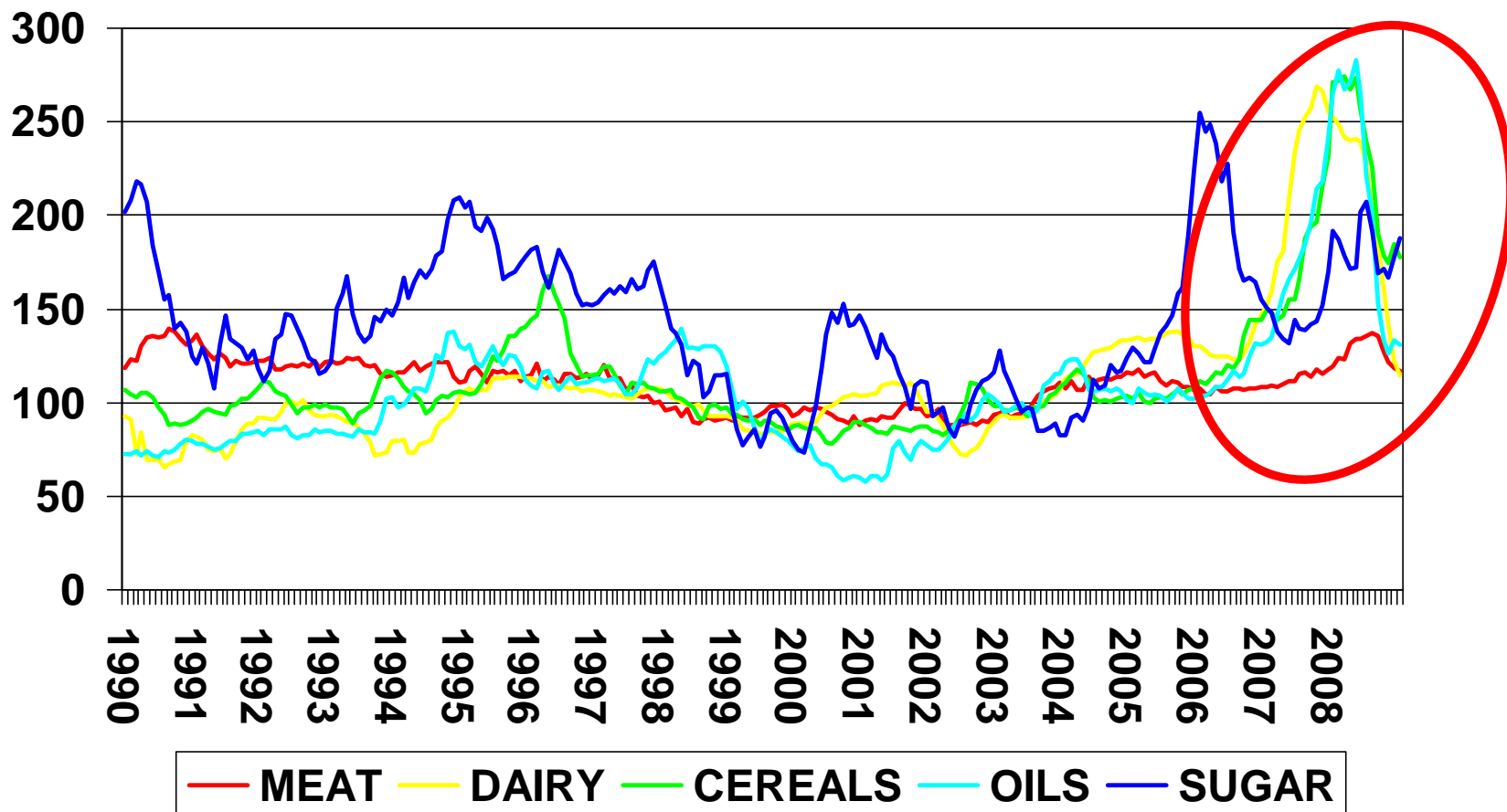


Climate Change and Agriculture

- Climate Change is expected to have serious impact on agricultural production and land use.
- Agriculture and farmers could be part of the solution to address climate change impacts through mitigation and adaptation (e.g. FAO work)
- Agriculture has significant potential to mitigate climate change.
- Adaptation offers location specific programs and policies to improve yield and enhance ecosystem resilience at local level which is a first step toward food security and environmental sustainability (e.g. application of best practices in land, water and natural resources management and alternative livelihood systems)



Prices rose significantly since 2006, fall dramatically late 2008, but still high

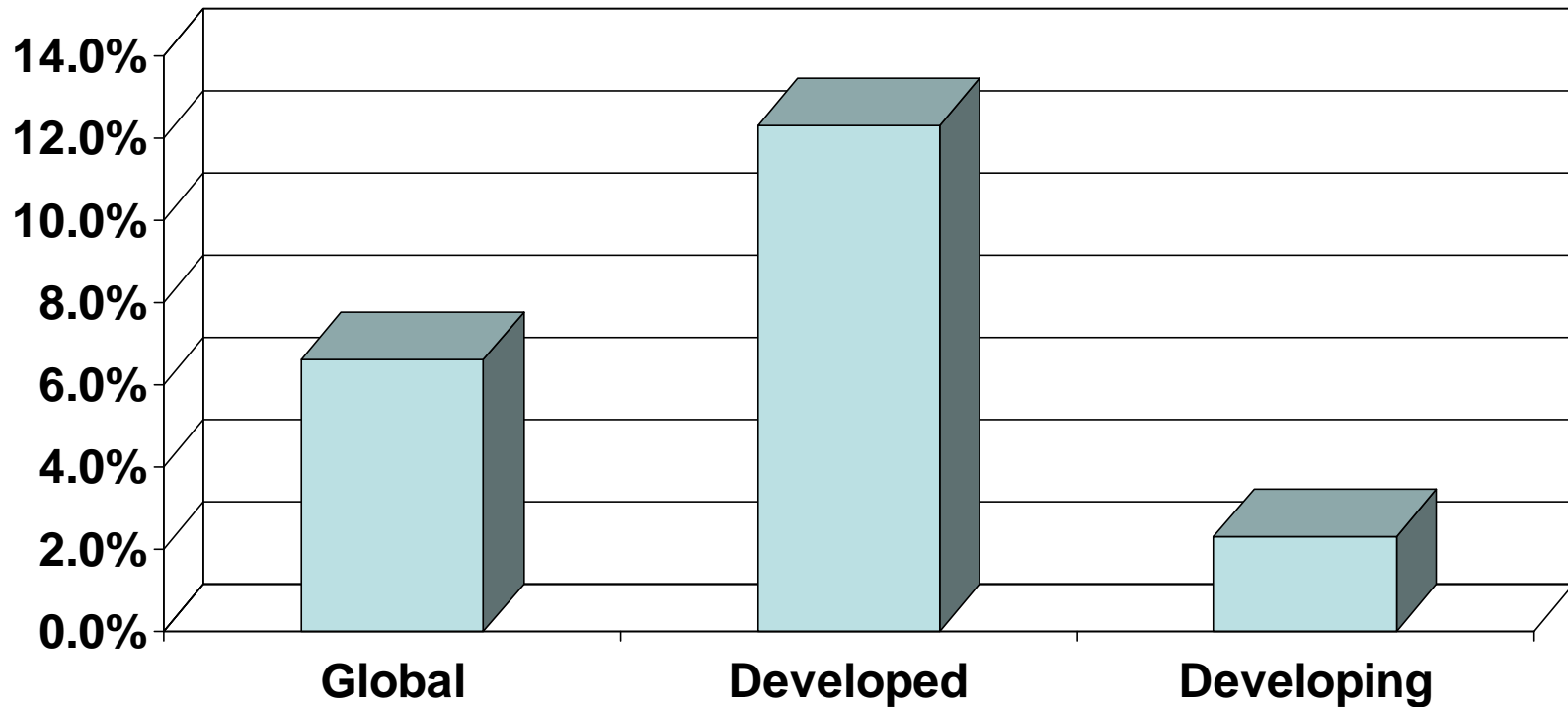


source: Cluff, FAO 2009



Producers respond... but less in developing countries

Change in Cereal Production 2008 over 2007



FAO, 2009





Liquid Biofuels: Challenges and Opportunities for Food Security and Sustainable Development

Challenges

- Safeguarding Food Security
- Ensuring GHG emission reductions, including land use change
- Protecting the natural resource base and biodiversity
- Promoting decent work
- Protecting access of the vulnerable to land and water

Opportunities

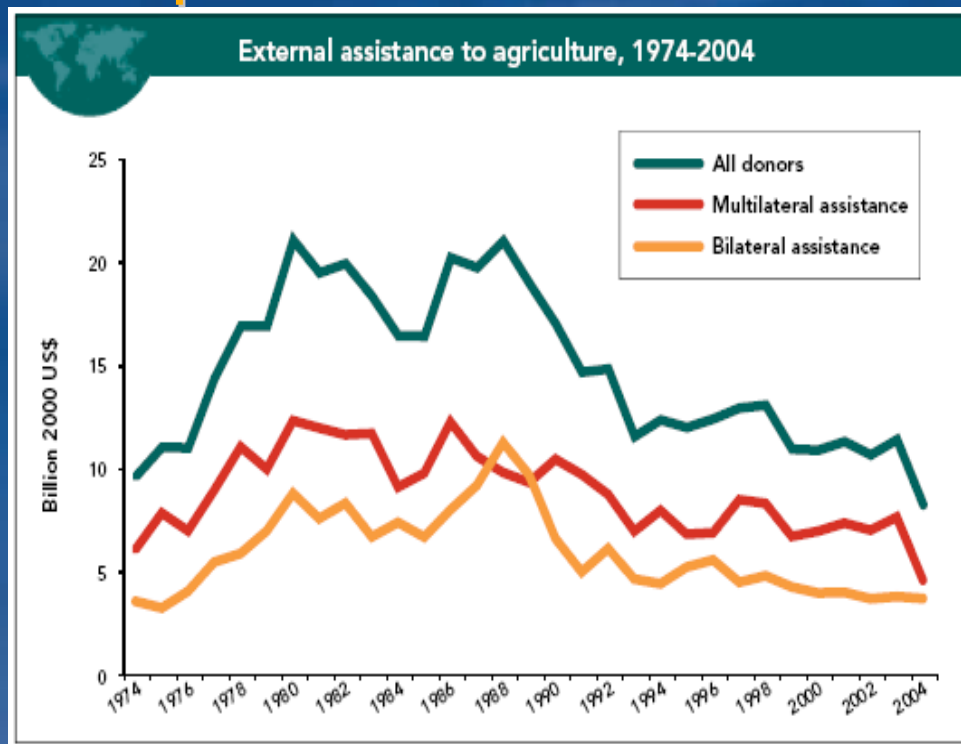
- Agricultural growth
- Poverty alleviation
- Energy Access

Action Needed

- Review current biofuel policies
- Promote international policy coordination and sustainability approaches
- Invest in agriculture and rural development

Low Investments in Agriculture

- Agricultural investments: **reduction** in real terms of **58%** in the period 1984-2004
- The share of agriculture in **ODA** fell from 17% in 1980 to **3%** in 2006
- In many African countries public spending on agriculture is far below the target set by the **Maputo Declaration**
- External commitments have steadily declined since the 1980s and **multilateral** assistance has declined



The Investment Road Map

FAO has tabled an investment road map to 2015: a annual investment volume of **US\$ 30 billion** in the following five areas would engender an overall **annual benefit of US\$ 120 billion**.

1. Improve agricultural productivity and enhance livelihoods and food security in poor rural communities.
2. Develop and conserve natural resources.
3. Expand and improve rural infrastructure and broaden market access.
4. Strengthen capacity for knowledge generation and dissemination.
5. Ensure access to food for the most-needy through safety nets and other direct assistance.

THANK YOU



Food Security

Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life (FAO).

Dimensions of Food Security

Availability – sufficient food supplies to meet consumption needs

Stability – minimizing downward slide in supply

Accessibility – ensuring access for all (especially the poor)

Utilization – adequate nutrition standards for healthy lives



The end of the crisis?

- **Cereal stocks** need to be replenished
- Lower prices will divert more supply to **fuel** generating a further decline in agricultural prices
- The **benefits of higher prices** did not accrue to developing countries:
 - Developed countries increased their cereal output by **11%**
 - The developing countries only scored an increase of **1.1%**
 - Cereal production **fell** by **0.8%** (excluding China, India and Brazil)
- **Another food crisis?**
 - Dropping prices and economic uncertainty could **discourage** farmers from **investing** in means of production
 - **Less planting** next season
 - Significant **fall in output** in 2009/10 and steeper price surge
 - Low prices are driven by lower demand: lower prices may be associated with **more poverty and hunger**

Food Prices

- **2007/2008:**

- Sharp rise in food prices, thus in food production, mostly in OECD
- Increase in the number of undernourished people (963 million)

- **Since July 2008:**

- Decline in food prices: -50% for world grain prices
- Is this the end of the food crises?

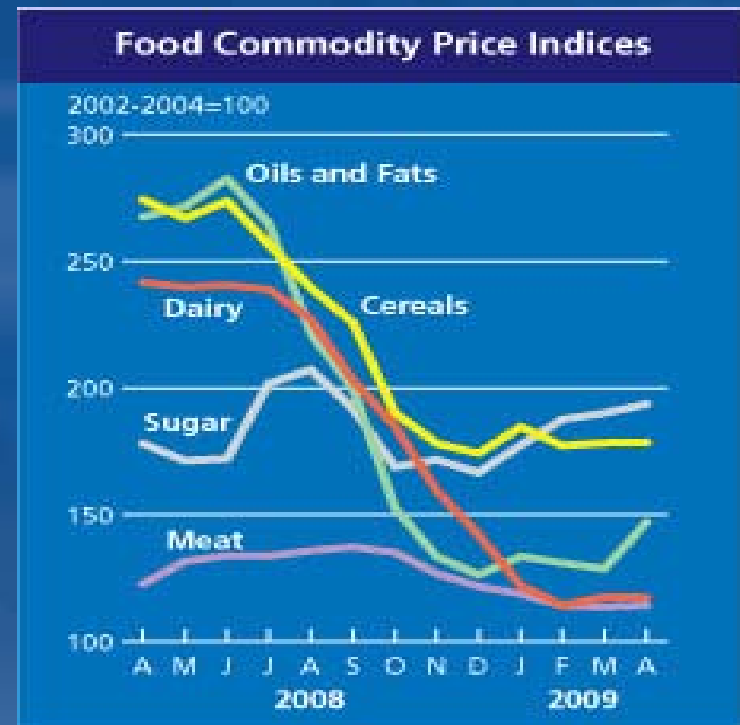


Table TS.4. Examples of regional impacts

