



INTERNATIONAL FOOD POLICY
RESEARCH INSTITUTE

Achieving Sustainable Food Security: New Trends and Emerging Agenda

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Key messages

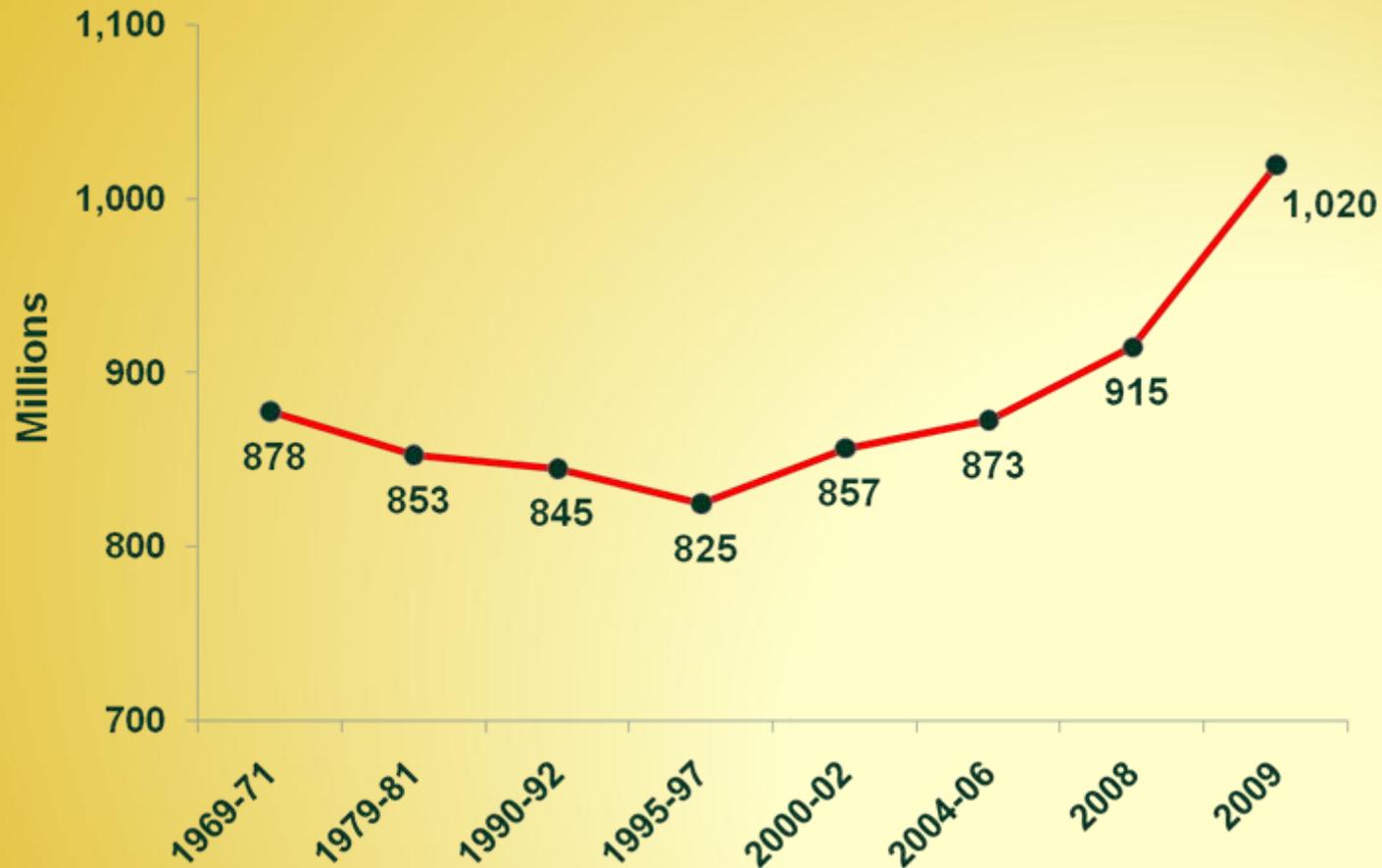
- 1. Global food security is under stress**
- 2. Africa needs special attention**
- 3. Agenda for food security must integrate sustainability**

Food security under stress

- **High and volatile prices**
- **Population growth and demographic changes**
- **Land and water constraints**
- **Climate change**

Hunger increased in the last decade

Number of undernourished (1969-71 to 2009)

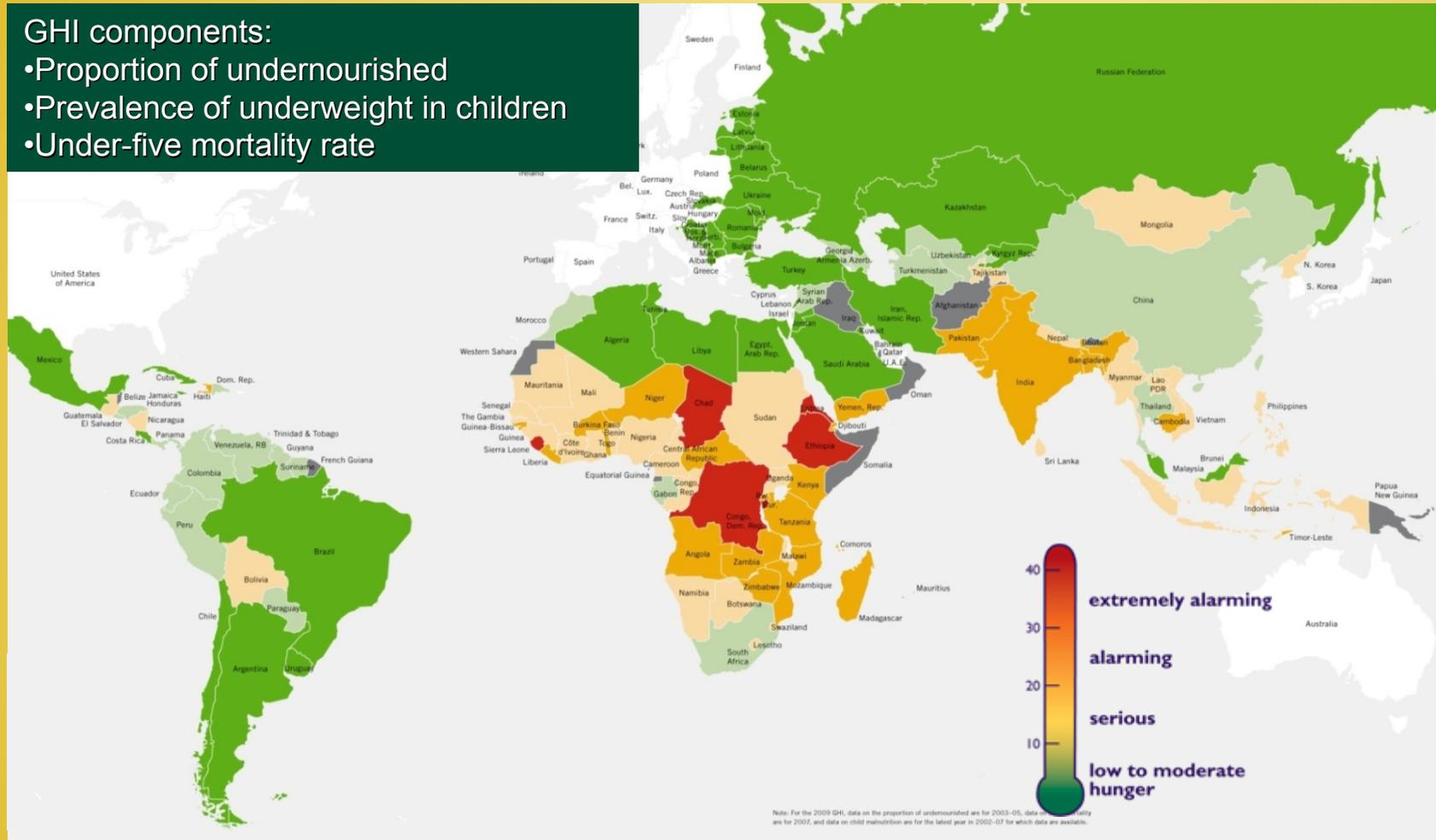


Source: FAO 2009.

29 countries have “alarming”/“extremely alarming” levels of hunger (2009 GHI)

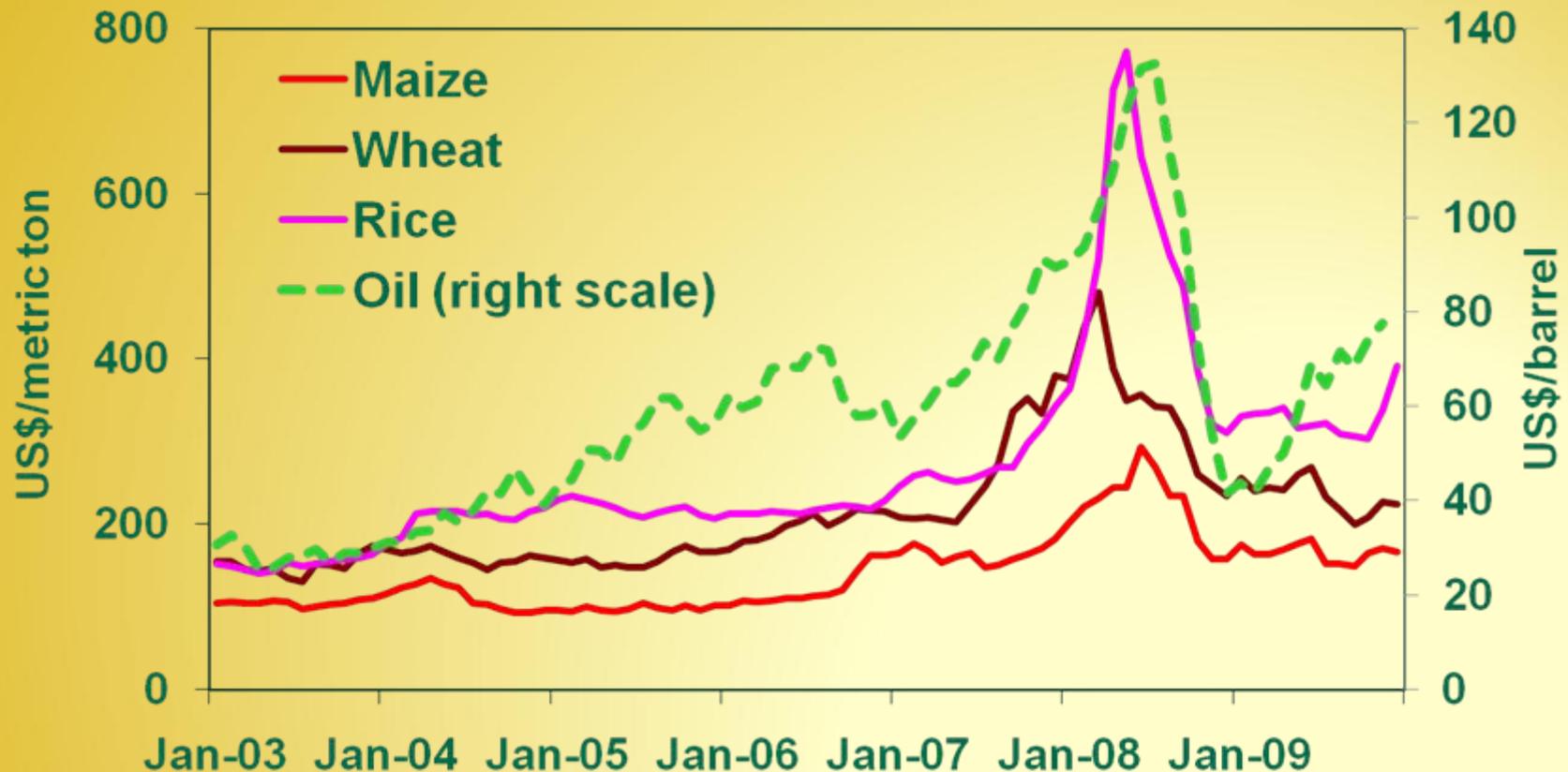
GHI components:

- Proportion of undernourished
- Prevalence of underweight in children
- Under-five mortality rate



Source: von Grebmer et al. 2009.

Food security is increasingly linked to energy price



131.5 million more people poor due to food crisis

(Chen and Ravallion 2009)

Financial crisis and recession hurt the poor through multiple channels

- Less capital for agriculture now and in the future
- Higher debt burden for small farmers who already invested in agriculture expansion
- Policy attention diverted away from agriculture leading to lower public investment
- Reduced employment and wages of unskilled workers

53 million more people poor due to financial crisis
(Chen and Ravallion 2009)

Rapidly growing population and demographic change



Source: FAO 2009.

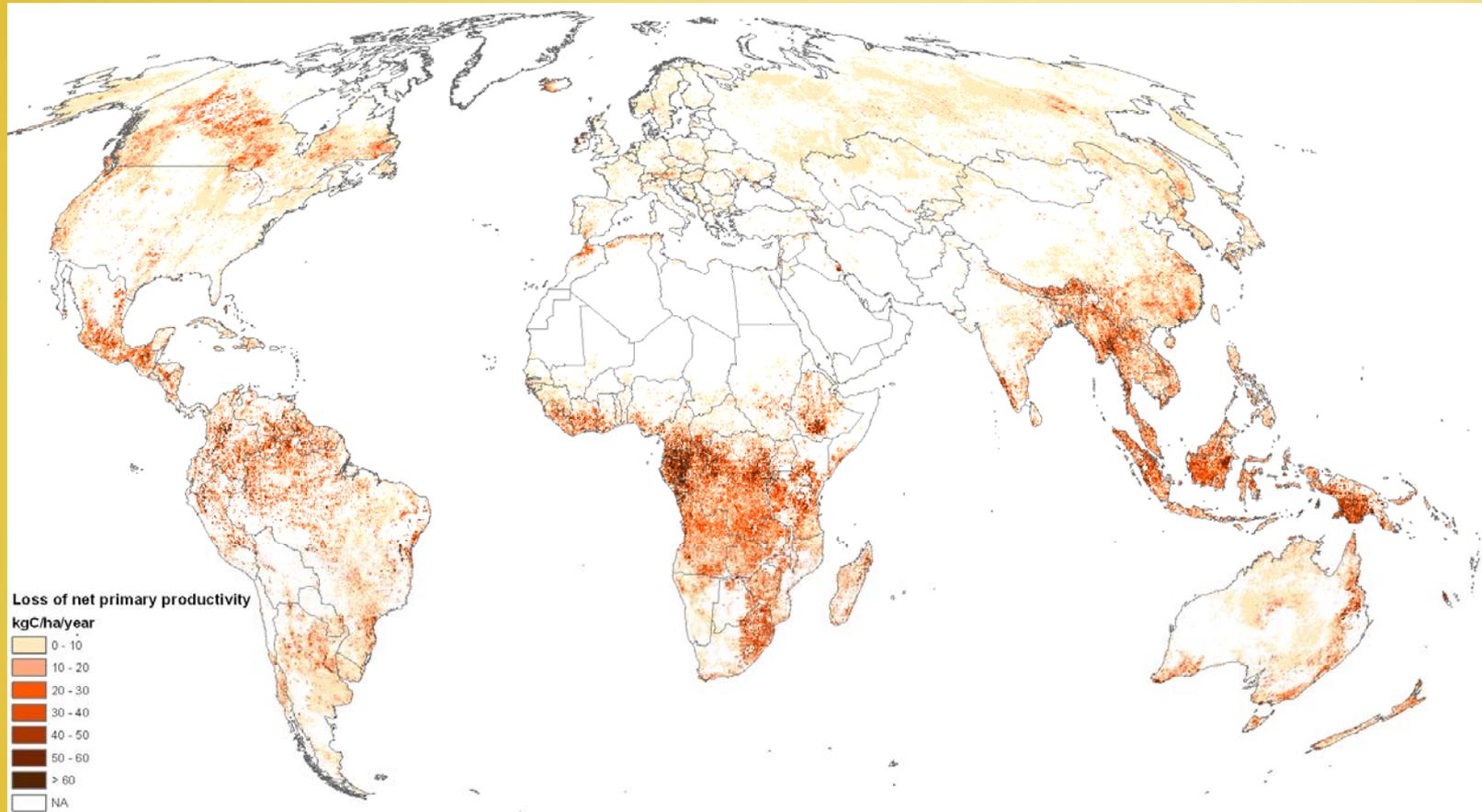
World population reaches 9 bil. by 2050

- All growth to come from urban areas
- Most growth to come from developing countries

Larger and more urban population will demand more and better food

Land constraints are high

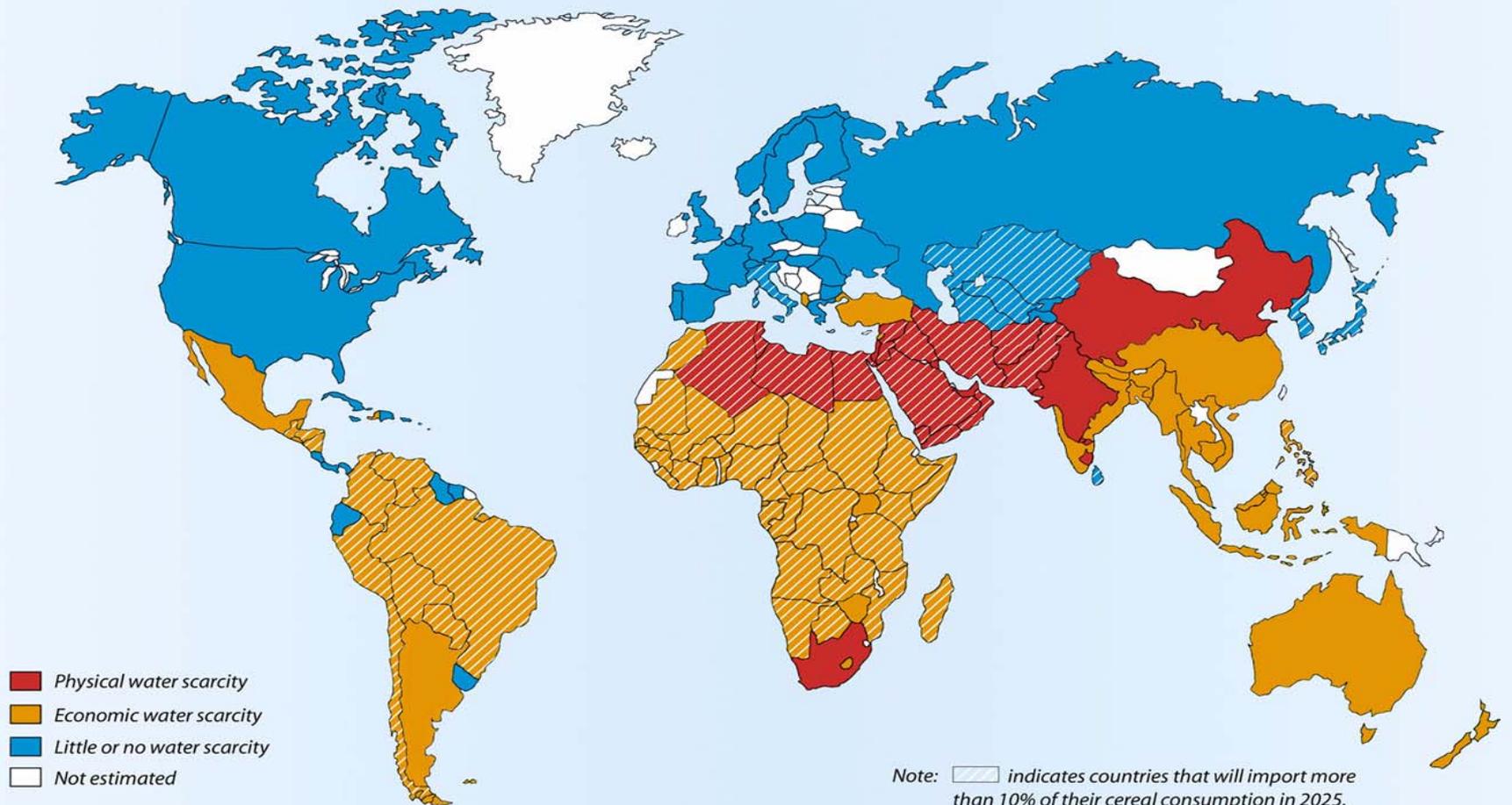
Land degradation, 1981-2003



Source: Bai et al. 2007 (LADA, FAO/ISRIC).

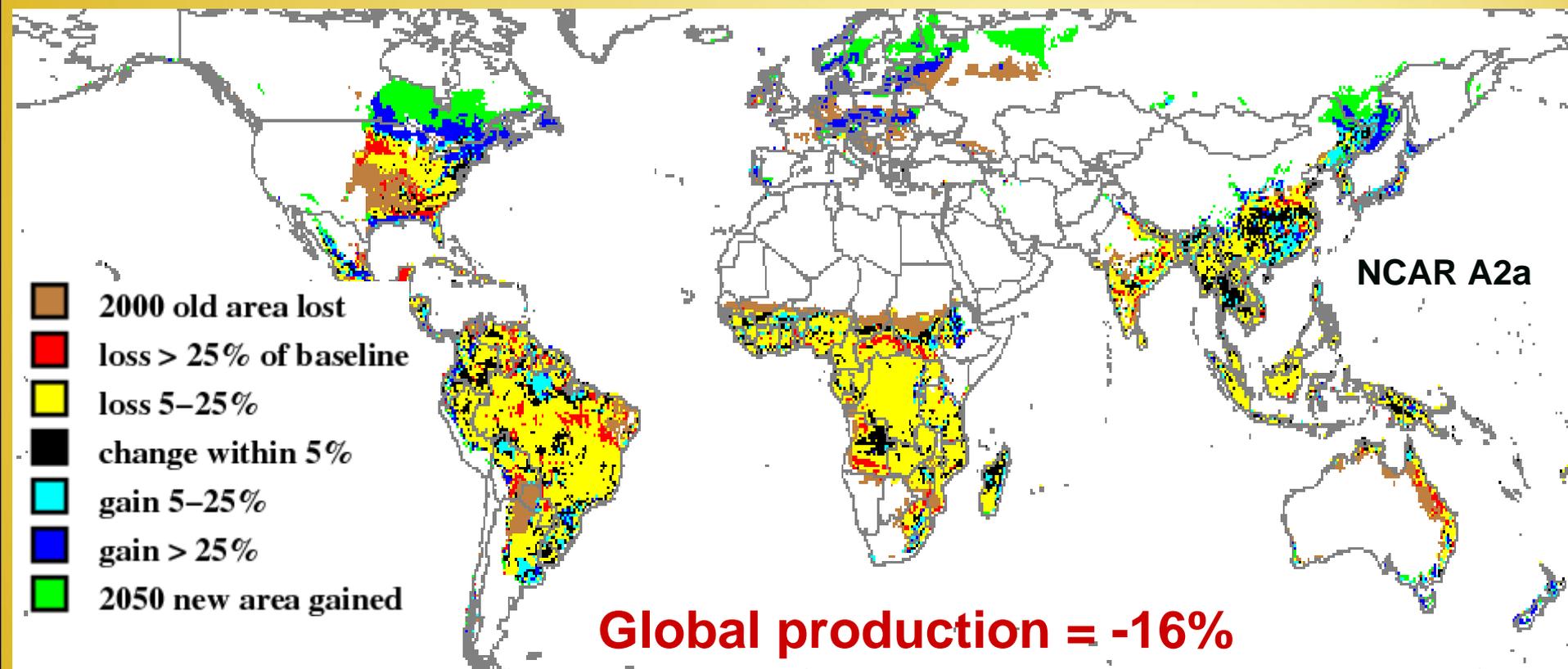
Do we also have a water crisis?

Projected Water Scarcity in 2025



Climate change will put additional pressure on food production systems

Climate change impact on production: Rainfed maize, 2050



Source: M. Rosegrant (IFPRI) 2009.

Africa needs special attention

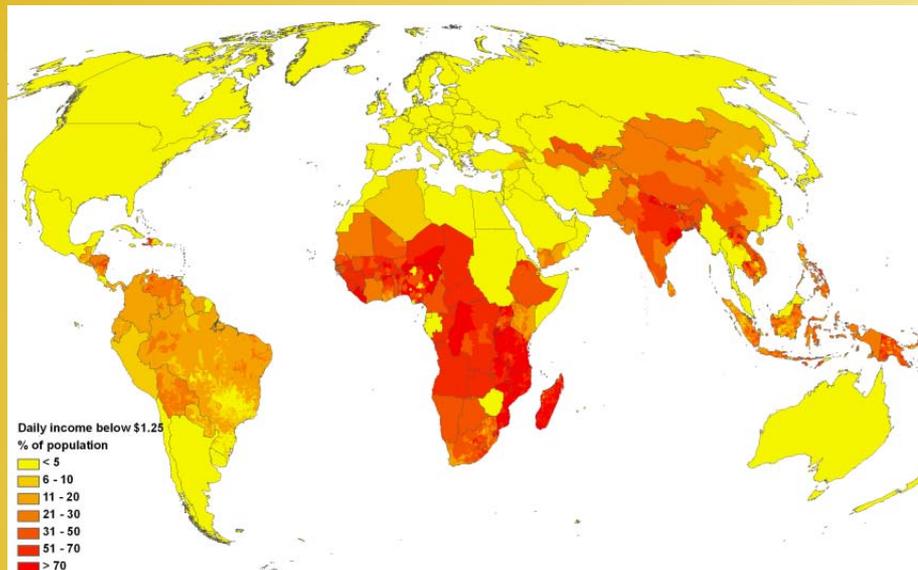
Lack of progress in agricultural growth and poverty reduction

Vulnerable to shocks (conflicts, climate, food prices, financial crises)

African leaders and donors committed, but lack of capacity at the regional, national, and community levels

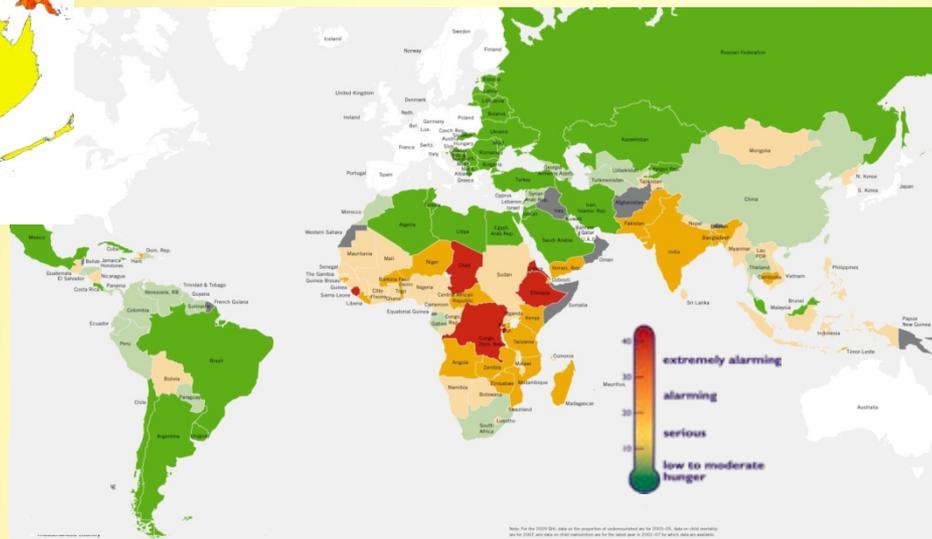
Poverty and hunger persistent in Africa

Poverty prevalence ca. 2005 (\$1.25/day)



Source: Stan Wood et al. 2009.

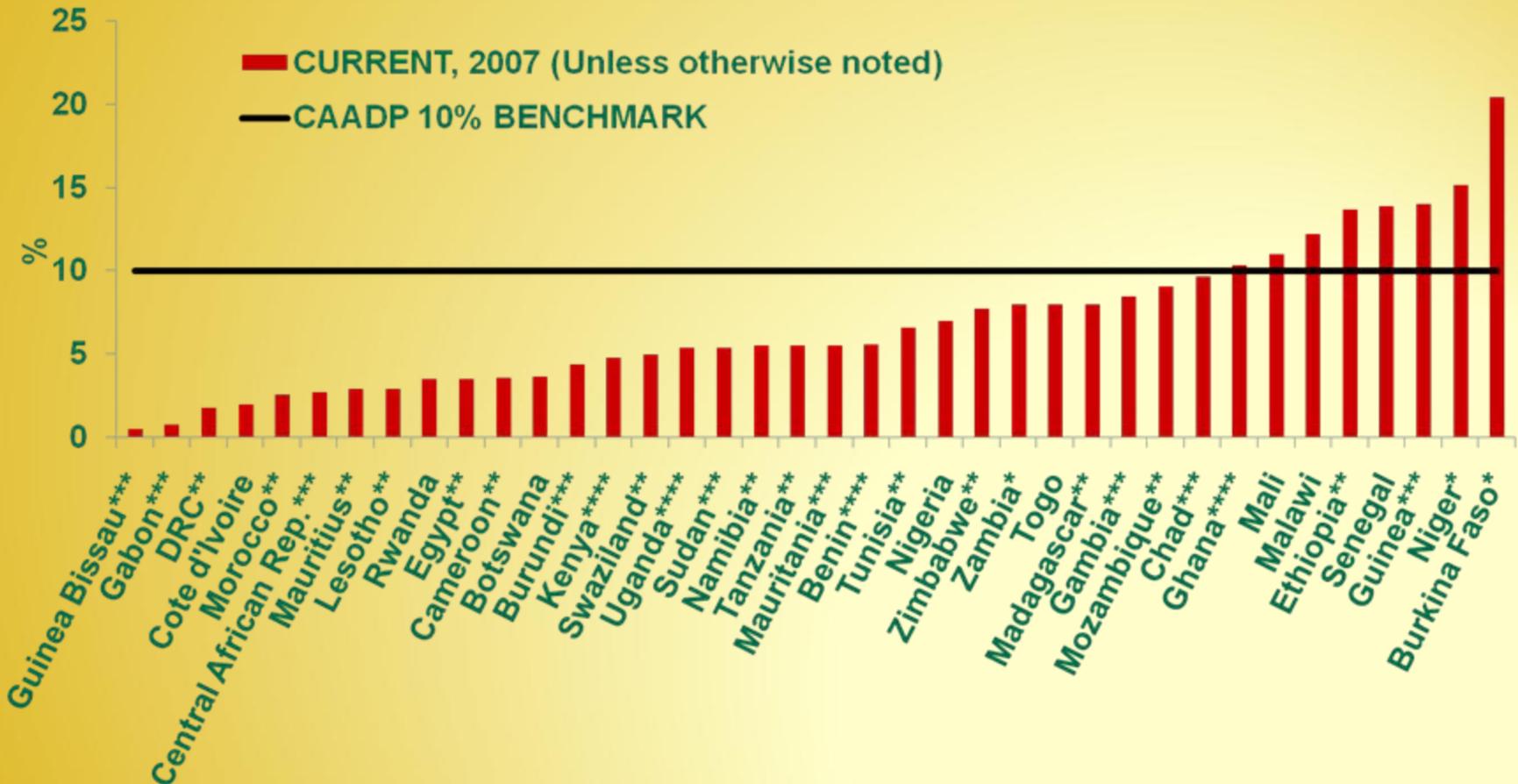
2009 Global Hunger Index



Source: von Grebmer et al. 2009.

Progress towards 10% budget allocation of the Maputo Declaration in Africa

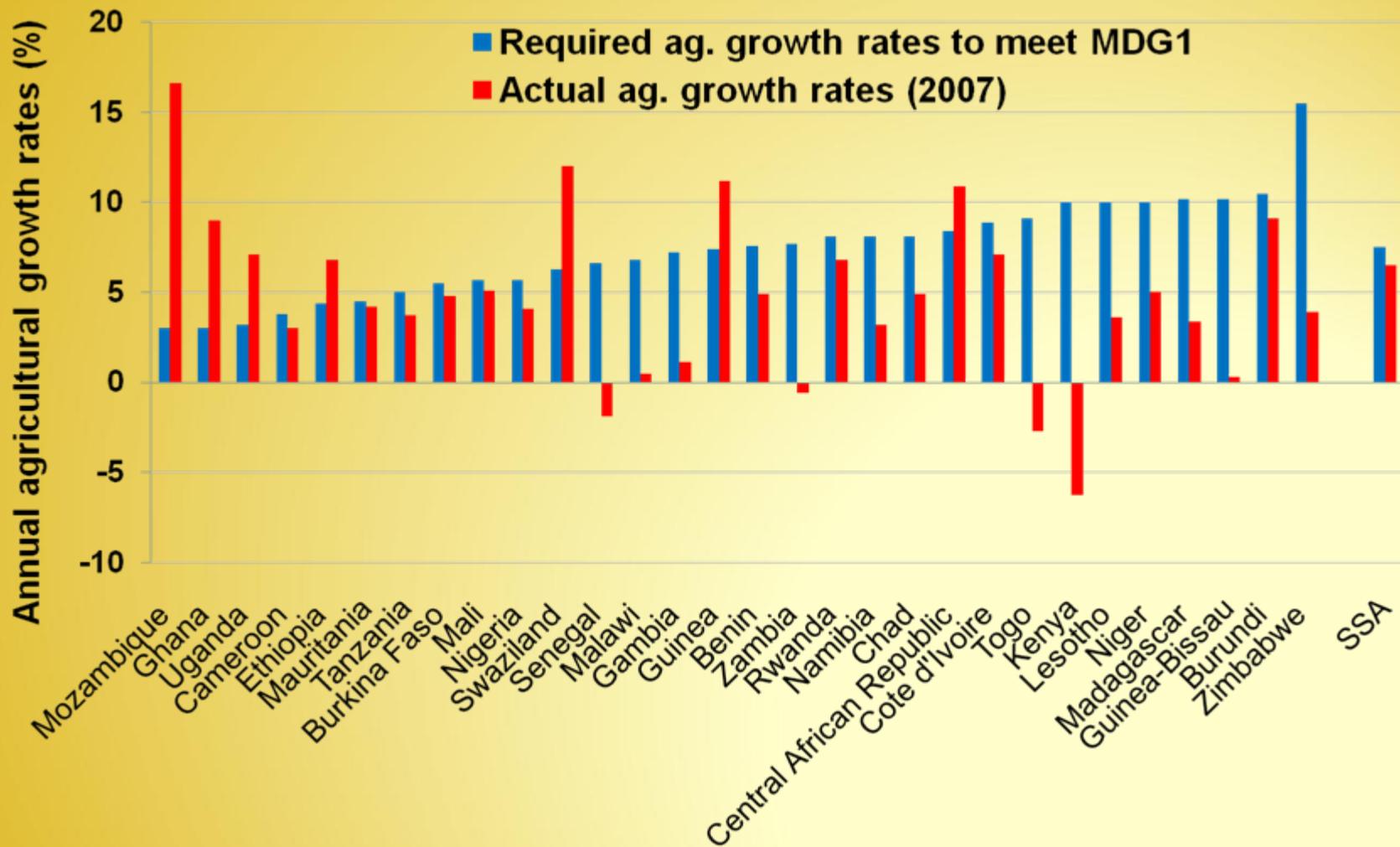
Agric. expenditures as a share of total spending (%), 2007



*=2006; **=2005; ***=2004; ****=2008 estimates

Source: ReSAKSS 2009.

Agricultural growth rates required to achieve MDG1



Source: Fan et al. 2009.

New agenda needed under emerging trends

- 1. Improve smallholder productivity and access to markets**
- 2. Keep trade open**
- 3. Promote productive safety nets**
- 4. Integrate climate change into strategies at all levels**
- 5. harmonize food security and sustainability policy**

1. Improve smallholder productivity and access to markets

- **Improve access to inputs**
(e.g. seeds, fertilizer)
- **Improve access to services**
(e.g. extension and finance)
- **Increase investment in rural infrastructure**
(e.g. rural feeder roads, water, irrigation)
- **Promote agricultural research and innovation**

2. Keep trade open

- **Eliminate harmful trade restrictions**
- **Complete the Doha Round**
 - if tariffs increase to their current WTO limits (bound level):
 - 11.5% loss of developing country exports
 - US\$353 billion loss in world welfare

Potential costs of failed Doha Round could be high

Source: Bouet and Laborde 2009.

3. Promote productive safety nets

Goals:

- Secure and smooth food consumption
- Enable saving and investment
- Build and diversify assets

Types of interventions e.g.:

- **Conditional cash/food transfers**
- **Maternal and child health/nutrition programs**
- **Public works**
- **Insurance for the poor**

Programs depend on needs, capacities, and resources

Source: Adato and Hoddinott 2008.

4. Integrate climate change into strategies at all levels



Source: IFPRI, Ringler 2007.

5. Harmonize food security and sustainability policy

- **Invest in innovative R&D in agriculture to address resource competition & environmental degradation**
 - Biotechnology: Develop stress tolerant materials to address water scarcity, salinization and groundwater contamination → biosafety issues need resolution
 - Promote water harvesting, minimum tillage, integrated soil fertility management
- **Maximize synergies between climate change mitigation and food security**
 - Expand low energy-intensive irrigation
 - Change from bare to improved fallow
 - Explore agro-forestry options that increase food/incomes

Source: Rosegrant 2009 and FAO 2009.

The most effective and sustainable actions must be country-led and country-owned