

Government Collaboration Panel:
Keys to Overcoming Global
Food Security Challenges

**An International (Research &) Development,
Geospatial Information Needs Perspective**

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USDA-FAS *“Global Food Security Challenges:
Monitoring Earth Resources Summit”*

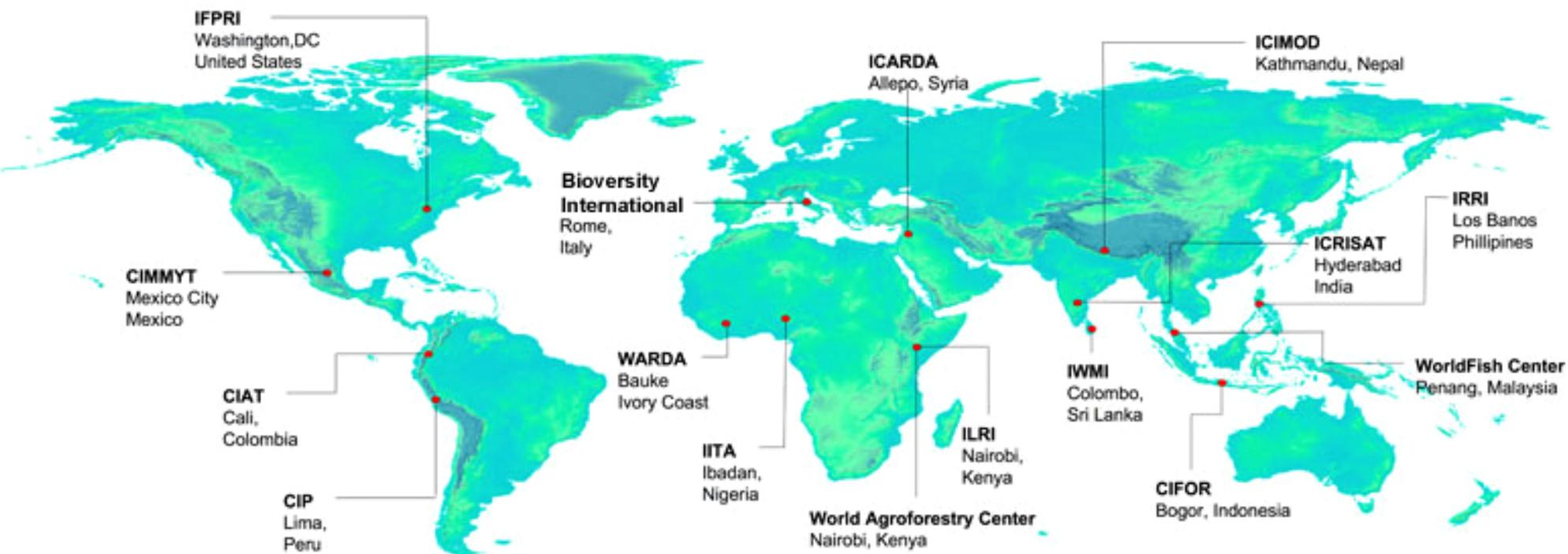
April 22, 2009

Ronald Reagan International Convention Center, Washington DC

Overview

- ▶ The international agricultural R4D community
- ▶ Food security challenges
- ▶ The key & escalating role of monitoring earth resources in improving the effectiveness of agricultural development and humanitarian strategies, policies, and investments
- ▶ An urgent plea for continued and increased support and partnership in monitoring earth resources for agricultural development purposes as a major contribution to accelerating and enhancing humanitarian, economic growth & security outcomes

Consultative Group for International Agricultural Research (CGIAR)



- > 2,000 scientists
- 100 countries
- > US\$500 million p.a. for agricultural R4D
- Alliance of 64 governments, private foundations, and international and regional organizations.

www.cgiar.org



INTERNATIONAL FOOD
POLICY RESEARCH INSTITUTE
sustainable solutions for ending hunger and poverty

- ▶ **IFPRI's Mission**

To Provide Policy Solutions That Reduce Poverty and End Hunger and Malnutrition

- ▶ **2009 Budget US\$57M**

- ▶ **301 staff members**

(DC based, 84 senior research staff, 25 are out-posted, mainly in SSA)

www.ifpri.org

IFPRI work on to the The Global Food (& Financial) Crisis: **Diagnosis & Proposed Responses** (partial)

The World Food Situation: New Driving Forces & Required Actions. Food Policy Report. December 2007.

High Food Prices: The What, Who, and How of Proposed Policy Actions. Policy Brief. May 2008.

Global Food Crises: Monitoring & Assessing Impact to Inform Policy Response. Food Policy Report. September 2008.

Food and Financial Crises: Implications for Agriculture and the Poor. December 2008.

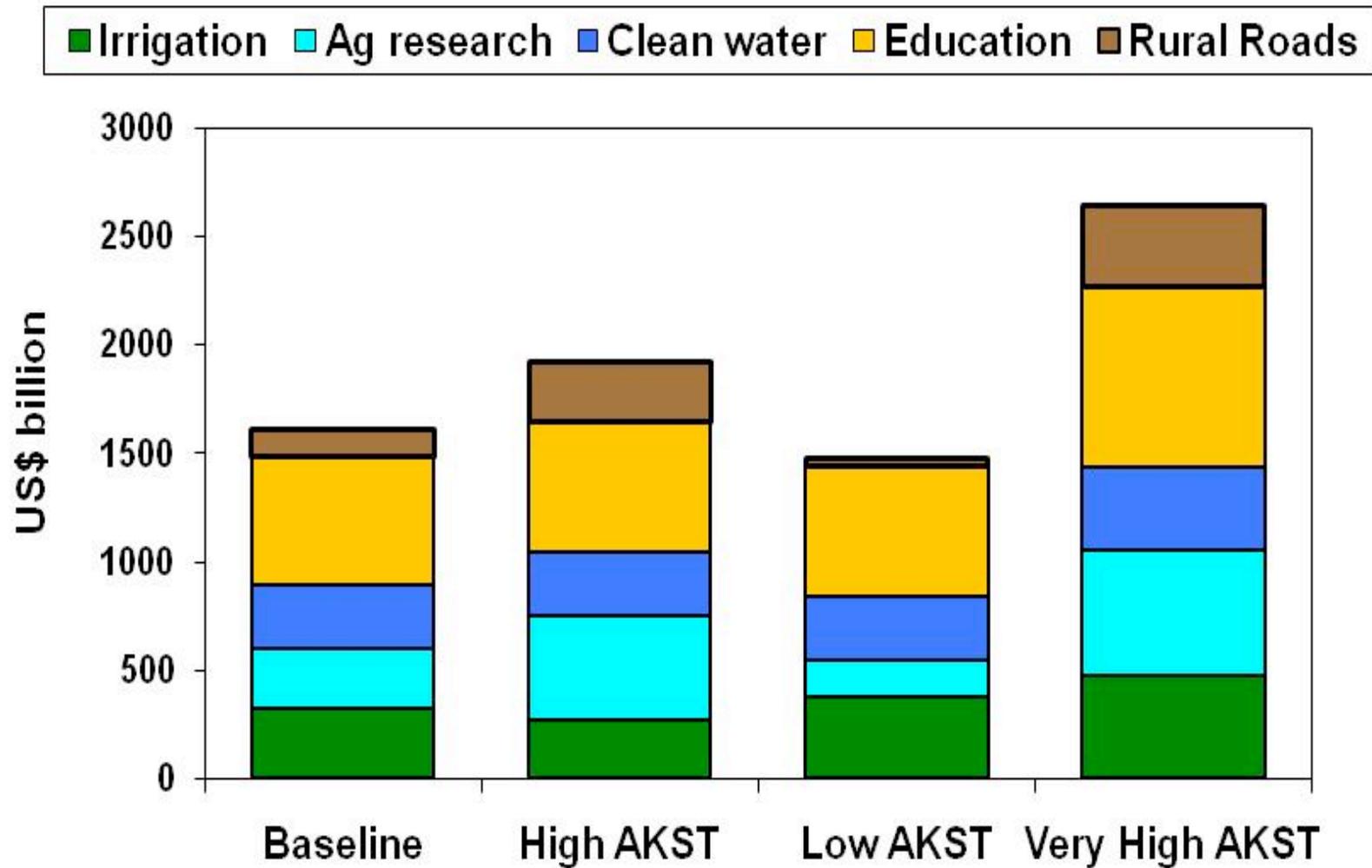
When Speculation Matters. Issue Brief. February 2009.

Implementing Physical and Virtual Food Reserves to Protect the Poor & Prevent Market Failure. Issue Brief. February 2009.

Eliminating Drastic Food Price Spikes – a three pronged approach for reserves. Discussion Note. March 2009.

**The Potential Outcomes Respond to the Scale,
Mix and Sequencing of Interventions:
A Sample of Some IFPRI Macro-modeling work.....**

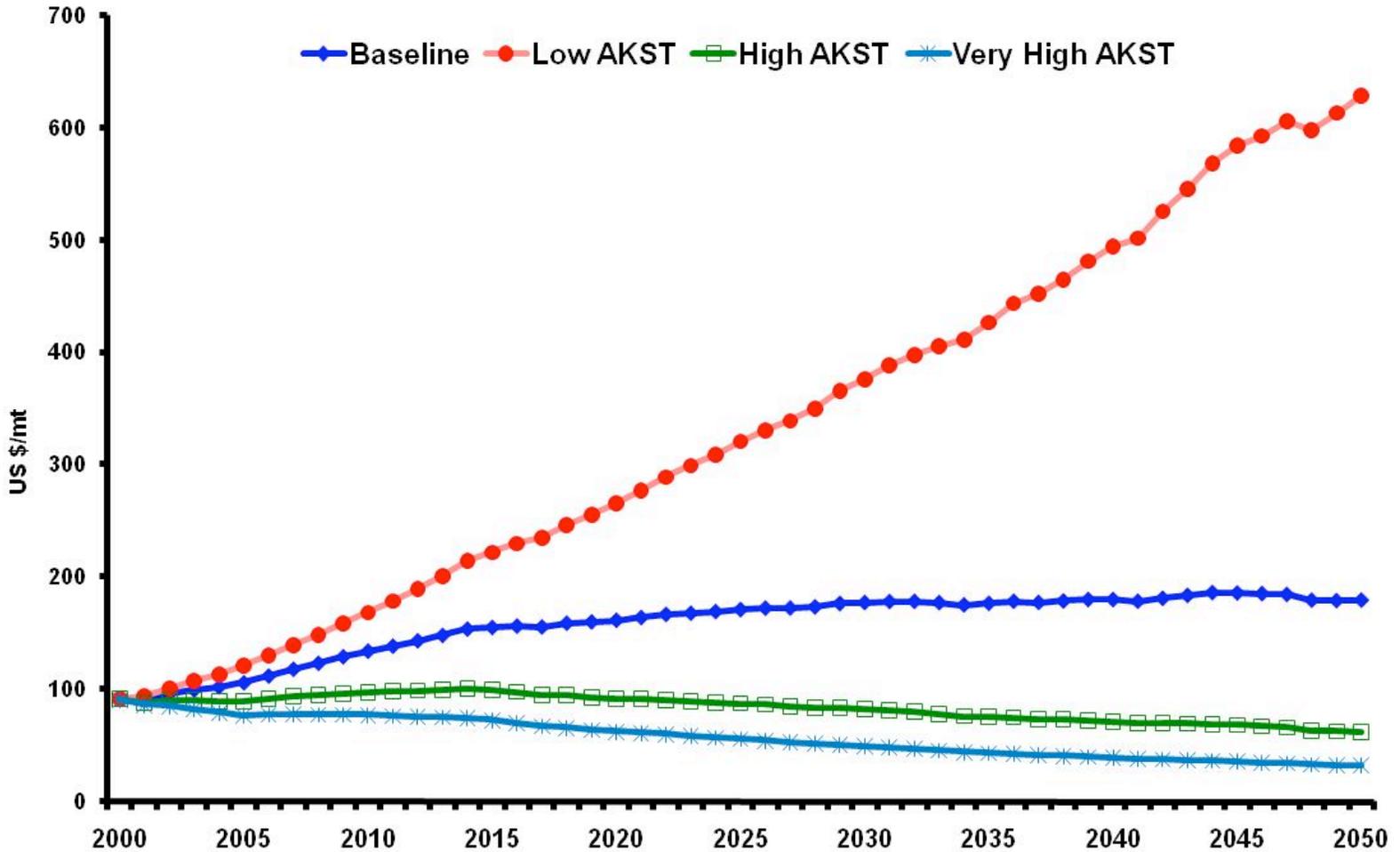
Some Alternate Investment Scenarios



Source: IFPRI IMPACT simulations, April 2008
for the International Ag. Assessment (IAASTD)

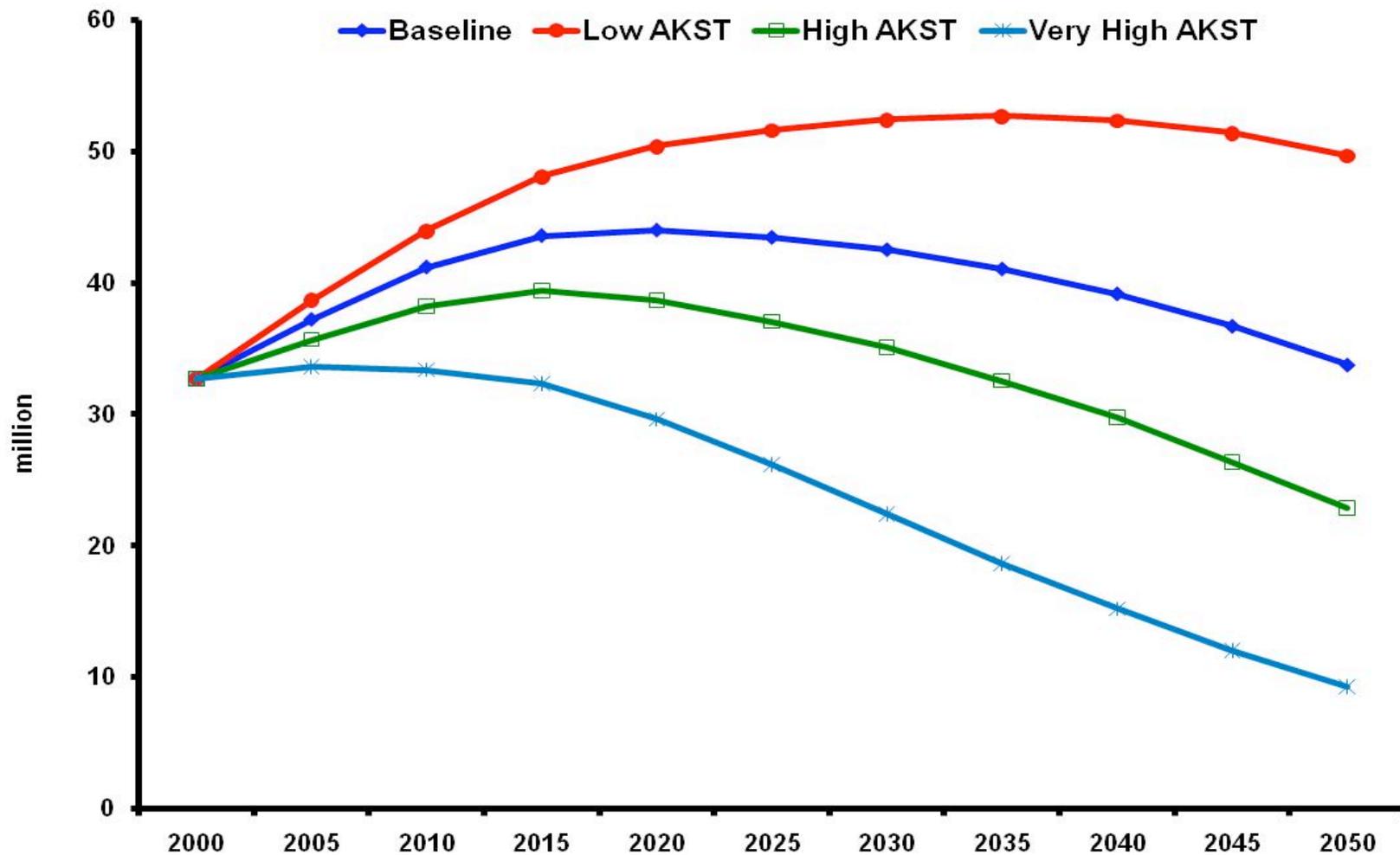
(Includes increased
infrastructure)

Global Maize Price, 2000-2050



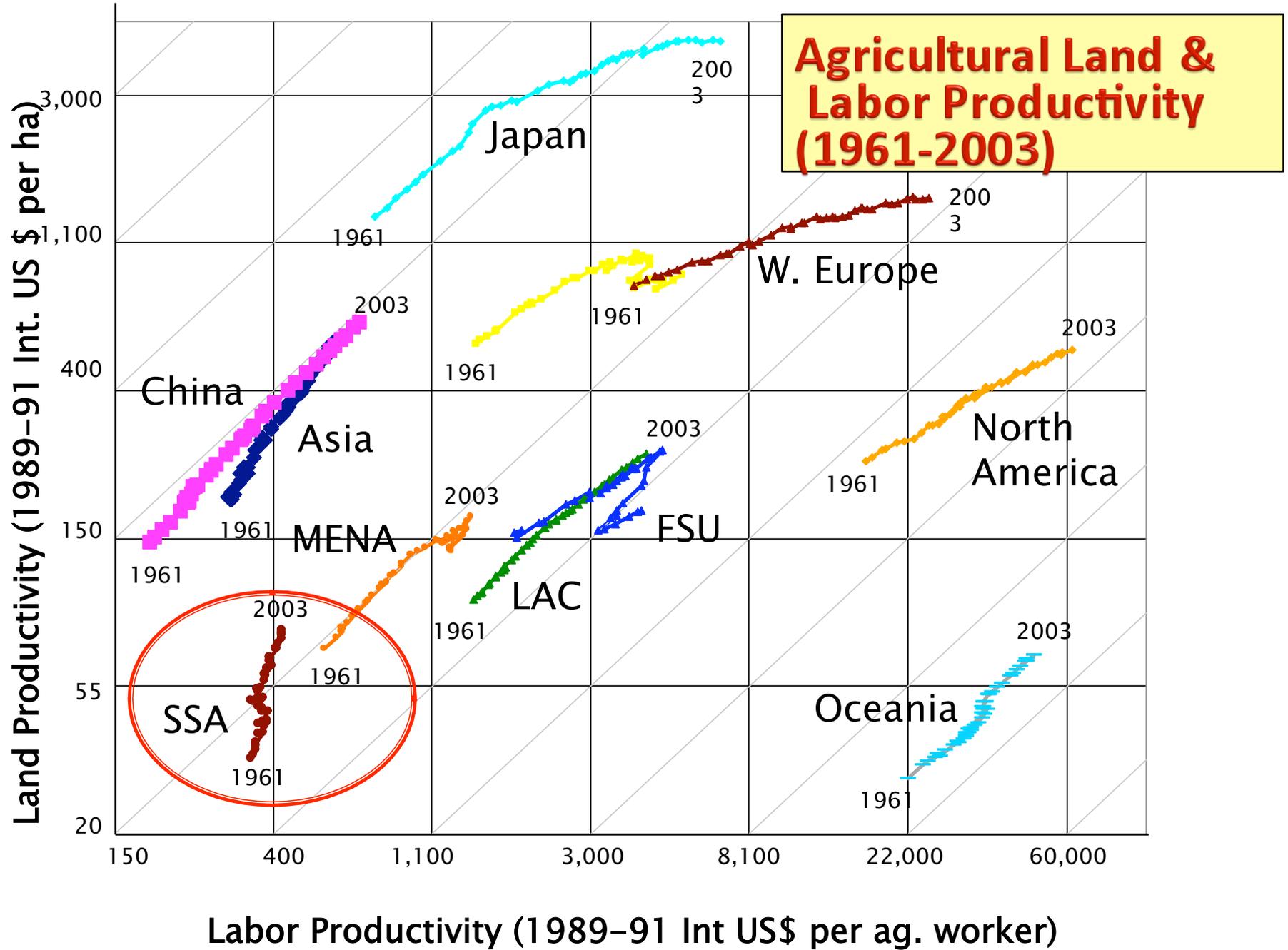
Source: IFPRI IMPACT simulations, April 2008

Malnourished Children in Sub-Saharan Africa, 2000-2050

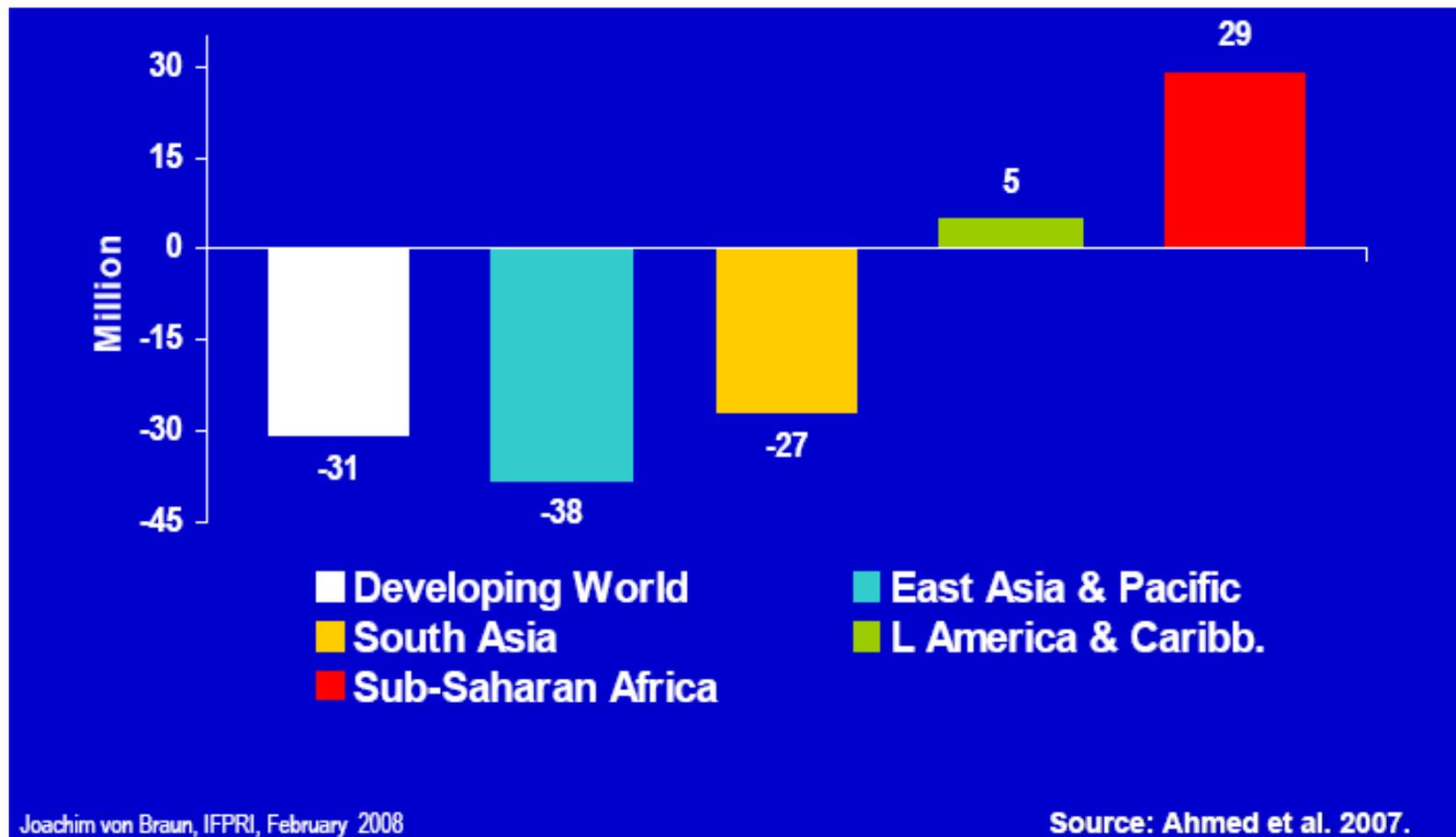


Source: IFPRI IMPACT simulations, April 2008

And some implications of (continuing) inaction..

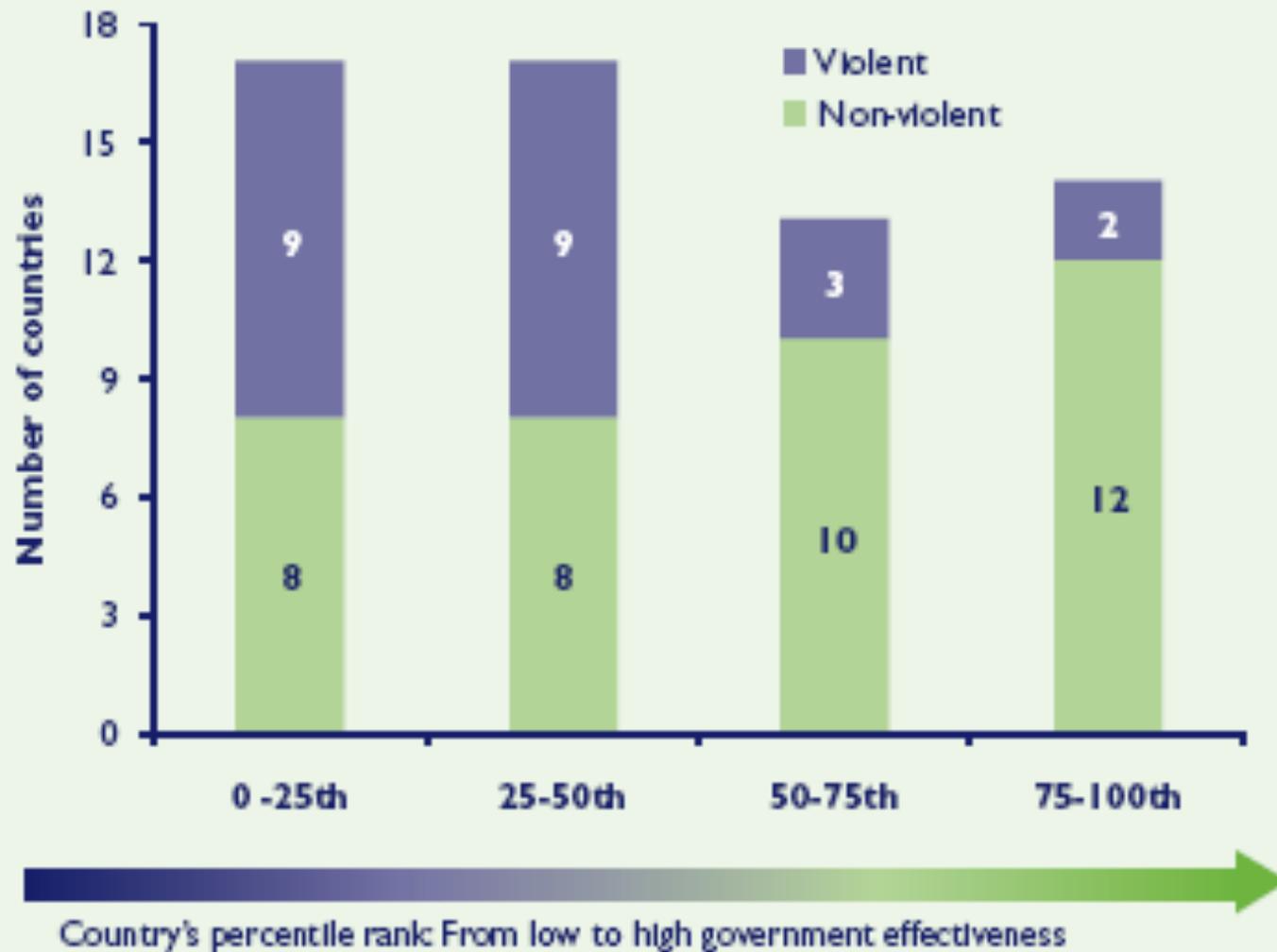


Growing Number of the Poorest in SSA: Living below US\$0.50/day (1990-2004)



Figure

Figure 4—Food protests by type and government effectiveness, 2007–08



Sources:



le
e from

International Agricultural (R&D) Geospatial Community (partial)

CGIAR Consortium on Spatial Information (CSI);
15 Centres + Partners (including FAO, UNEP, USAID,
vendors.. Etc)

AGCommons;

Gates Foundation program on Geospatial Technology
for Agricultural Development in SSA

“African Agriculture Geospatial Week.”

Nairobi, March 31-April 4, 2009. (Bamako 2010)

Persistent plea from all meetings, from all agricultural development parties

1. It is urgent and essential to have credible assessments of the distribution and intensity of the agricultural lands of Africa (especially croplands)?

2. How to get such estimates over time (every 2-3 years)?

3. How to get information on the nature of cropping systems (and ultimately for some specific crops)?

4. How to get better information on the performance of cropping systems (not just area)? (*links to ag. stats*)

5. How to complement with better data on infrastructure (e.g., terrain, roads, small dams, storage & markets)?

A Partnership Offer

- The CGIAR and its partners engage extensively in field work in the agricultural lands of SSA.**
- The CSI welcomes the opportunity to contribute to the increased ground-truthing effort that will be required to derive these improved monitoring products**
- The CSI (& FAO & possibly AGCommons) would welcome partnering as advocates and champions for these new products and in the development of concrete proposals for action**

Some Potential Options?

(see also “GEO Workshop Report”, FAO, July 2007)

- Enhanced free/v. low cost access to existing higher resolution imagery for development and humanitarian purposes (e.g., NGA and private sector)**
- More strategic acquisition/compilation from existing platforms (LANDSAT, CBERS, Rapideye, Radar?)**
- Stratification (research?) of groundtruthing needs/strategies (terrain, agroecology, farming systems)**
- Re-processing of existing holdings with improved groundtruthing, methods, and partnering (e.g. CSI, SERVIR)**
- Enhanced US-Europe RS community partnerships, also for value-added applications (e.g., FEWS-GMFS)**