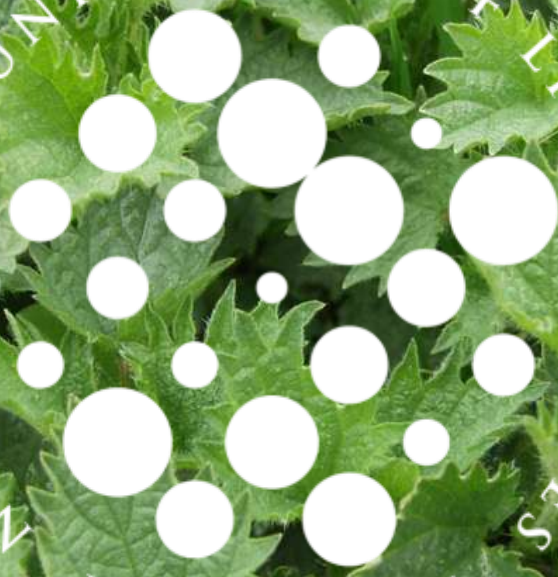


NORWEGIAN UNIVERSITY OF LIFE SCIENCES
M D C C C L I X



The role of CGIAR in promoting food justice and protecting the environment

Professor Ruth Haug

Noragric/UMB

August 2012



CGIAR Strategic System Level Outcomes (<http://www.cgiar.org/>)

- Less rural poverty
- Better food security
- Better nutrition and health and
- Sustainably managed resources



OVERARCHING THEMES

GENDER

PARTNERSHIPS/STAKEHOLDER
ENGAGEMENT

CAPACITY
STRENGTHENING

ROOTS, TUBERS,
AND BANANAS

MAIZE

AQUATIC
AGRICULTURAL
SYSTEMS

DRYLAND
SYSTEMS

AGRICULTURE
FOR NUTRITION
AND HEALTH

INTEGRATED
SYSTEMS FOR THE
HUMID TROPICS

POLICIES,
INSTITUTIONS
AND MARKETS

RICE

GRAIN LEGUMES

FORESTS,
TREES AND
AGROFORESTRY

<http://www.cgiar.org/>

LIVESTOCK
AND FISH

CLIMATE CHANGE,
AGRICULTURE
AND FOOD
SECURITY

WATER,
LAND AND
ECOSYSTEMS

DRYLAND
CEREALS

WHEAT

OUTCOMES

REDUCED RURAL
POVERTY

INCREASED
FOOD SECURITY

IMPROVED NUTRITION
AND HEALTH

SUSTAINABLY MANAGED
NATURAL RESOURCES



FAO food price index: July 2012

(www.fao.org/index_en.htm)



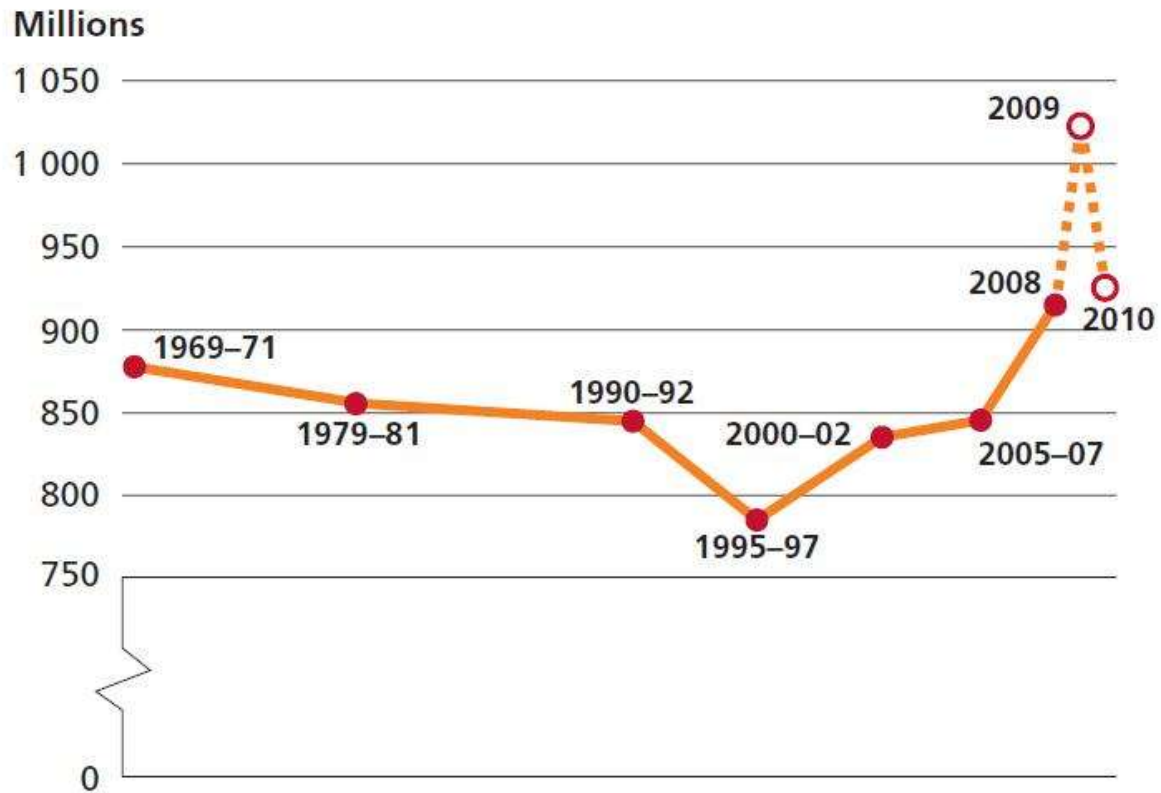


Food Security:

Access by all people at all time for enough food to live a healthy life (WB, 1986; FAO Food Security Summits)



Number of undernourished people in the world, 1969-71 to 2010

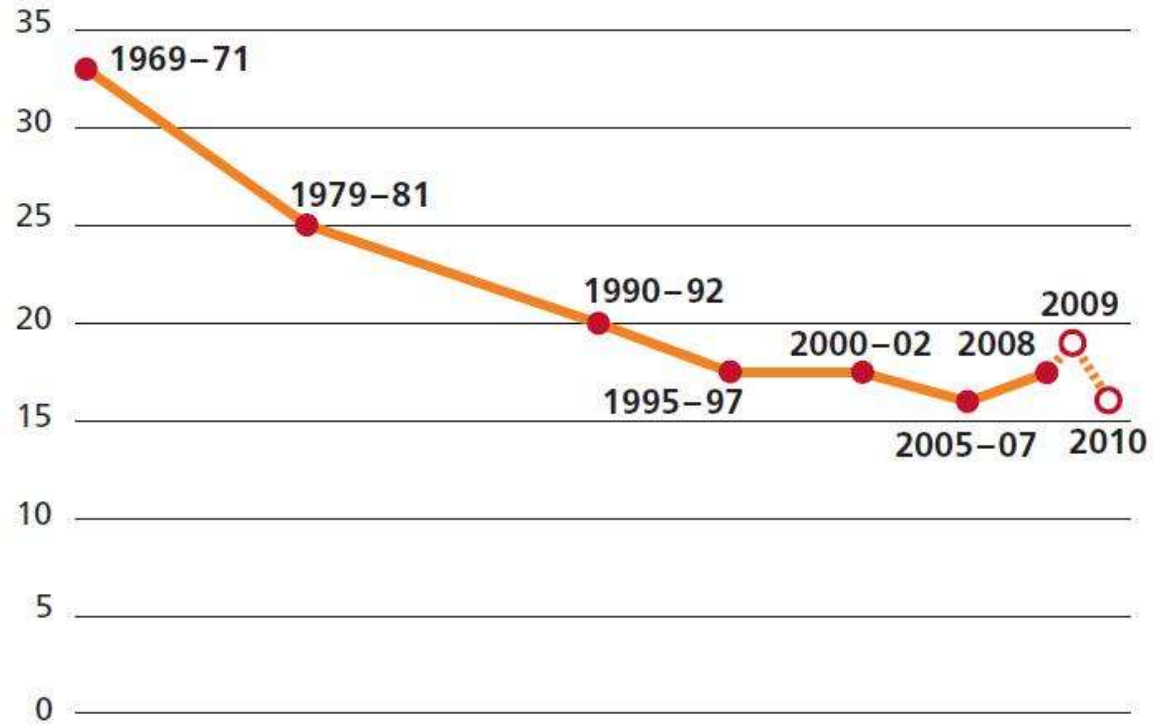


Note: Figures for 2009 and 2010 are estimated by FAO with input from the United States Department of Agriculture, Economic Research Service.

Source: FAO.

Proportion of undernourished people in developing countries, 1969–71 to 2010

Percentage of undernourished



Source: FAO.



Africa can feed the world

The president of the International Fund for Agricultural Development (IFAD) Dr Kanayo Nwanze claims that, by focusing on farming, Africa has the potential to feed not only itself but the rest of the world (www.guardian.co.uk/global-development/poverty-matters/2011/jul/27/africa-potential-to-feed-world)



Impact of CGIAR research (The CGIAR at 40 and beyond)

- For every 1\$ invested in CGIAR – 9\$ worth of additional food is produced
- Genetic improvement of staple foods
 - 7,250 varieties bred, 60% of food crops planted
 - Maize, rice, wheat yield growth of 0.7-1.0 annually
 - Tilapia up to 80% higher production
- Stress resistance for more stable prod.
 - Resistance to wheat leaf rust (\$5.4 billion)
 - East coast fever vaccine (\$270 million saved per year)
- Returns from research on natural resources
 - Conservation agriculture, fertilizer tree fallow, more crop per drop of water, governing forestry, REDD
- Policy impact
 - Commodity exchange in Ethiopia – price stabilisation and market access
 - Food price crisis role



CGIAR Genebanks (<http://www.cgiar.org/>)

- 5-year program for the management (sustainable funding) of the collections of plant genetic resources held by 11 members of the CGIAR Consortium. Partnership between the members of CGIAR Consortium and the [Global Crop Diversity Trust](#).
- The objective is to conserve the diversity of plant genetic resources in CGIAR-held collections and to make this diversity available to breeders and researchers in a manner that meets high international scientific standards, is cost efficient, is secure, reliable and sustainable over the long-term and is supportive of and consistent with the [International Treaty on Plant Genetic Resources for Food and Agriculture](#).



Food: Land, water and biodiversity (FAO, 2009; Goodfray et al, 2010; T.Stuart, 2009)

- The world has some **land reserves** 2050: 70 million ha or 5% expansion
- **Global level sufficient water** – uneven distributed, water scarcity many places, possible to increase water efficiency
- **Agrobiodiversity: gene pool diminishing**
- 90% of growth in crop production will come from **intensification** – investment needed
- **Changes?**
 - Diet, post-harvest, waste
 - Meat ??, fish farming,



Tristram Stuart

Drivers that will frame the future

(*The Foresight - The Future of Food and Farming 2011*)

- Balancing future demand and supply sustainably – to ensure that food supplies are **affordable**.
- Ensuring that there is adequate **stability** in food prices – and **protecting** the most vulnerable from the volatility that does occur.
- Achieving global **access to food** and ending hunger – recognising that production is not enough
- Managing the contribution of the food system to the **mitigation of climate change**.
- **Maintaining biodiversity and ecosystem services while feeding the world.**

