



HOW
TO FEED THE WORLD
2050



Expert Meeting on

“How to Feed the World in 2050”

FAO Headquarters, Rome

24-26 June 2009

Concept Note & Programme (preliminary)





Background

In the first half of this century, global demand for food, feed and fibre will nearly double while, increasingly, crops may also be used for bioenergy and other industrial purposes. New and traditional demand for agricultural produce will thus put growing pressure on already scarce agricultural resources. And while agriculture will be forced to compete for land and water with sprawling urban settlements, it will also be required to serve on other major fronts: adapting and contributing to the mitigation of climate change, helping preserve natural habitats, protecting endangered species and maintaining a high level of biodiversity. As though this were not challenging enough, fewer people will be living in rural areas and even less will be farmers. They will need new technologies to grow more food from less land, with fewer hands.

This scenario raises a number of important questions. For instance, will we be able to produce enough food at affordable prices or will rising food prices drive more of the world's population into poverty and hunger? How much spare capacity in terms of land and water do we have to feed the world in 2050? What are the new technologies that can help us use scarce resources more efficiently and increase crop yields?

Assuming we can make technical progress, are we investing enough in research and development for breakthroughs to be available in time? Will new technologies be available to the people who will need them most – the poor? How much do we need to invest in order to help agriculture adapt to climate change, and how much can agriculture contribute to mitigating extreme weather events?

Finally, do we have the right policies to help ensure that the world's future needs are met? Are trade and support policies, ODA and other sources of support sufficient and properly focused to feed the world better over the coming decades? What are priority areas for policy action and where are the present and future hot-spots where policy action is needed most urgently? What can be done to ensure food security in sub-Saharan Africa, the continent facing the highest population growth rates, the severest impacts from climate change and the heaviest burden of HIV/AIDS?

These questions will be discussed, and hopefully answered, at a High-Level Conference (HLC) to be hosted by FAO in October 2009. The HLC will take the form of a Forum and be organized around six panel sessions focusing on the following topics:

1. The outlook for food and agriculture in a dynamically changing economic and demographic environment.
2. Available resources (land, water, genetics), limits and challenges from climate change and new demands (bioenergy).
3. The technological challenge.
4. Investment needs, sources and instruments.
5. The policy challenge: investment, trade, support, ODA and more.
6. Special session on Africa.

In preparation for the HLC, FAO will host an expert meeting on 24-26 June 2009 to prepare technical background documentation.



Programme

Expert Meeting on

“How to Feed the World in 2050”

FAO Headquarters, Rome, 24-26 June 2009 (Mexico Room)

Chair: TBD

Rapporteur: Parsons

Expected number of participants: 50 to 60

Opening, registration, welcome: Wednesday, 24 June

08.30 - 09.30 Registration

09.30 Welcome address [Ghanem, ADG-ES, FAO]



Programme

Session 1 **Wednesday,**
24 June
10.00 – 13.00

***Global agriculture to 2050:
How will the world's food and agriculture sector develop in a
dynamically changing economic and resource environment?***

- The macroeconomic environment for agriculture and rural areas to develop over the next 50 years [World Bank, Van der Mensbrugge/Baffes/Burns/Osorio-Rodarte].
- Growth, poverty and inequality: Long-term prospects and challenges ahead [University of Kentucky, Hillebrand]
- The CIRAD-INRA Foresight study on world food and agricultural systems in 2050 [CIRAD, Dorin].

Session 2 **Wednesday,**
24 June
14.30 – 17.30

***The resource base to 2050: Will there be enough land, water and
genetic potential to meet future food and biofuel demands?***

- World agriculture towards 2050: FAO's long-term projections for food and agriculture [FAO-ESAG, Alexandratos]
- Agriculture in a dynamically changing environment: IFPRI's long-term outlook for food and agriculture under pressure from new demands and added constraints [IFPRI, Msangi/Rosegrant].



Programme

Session 2 **Wednesday,**
24 June
14.30 – 17.30 (cont.)

- The resource outlook to 2050. By how much do land, water use and crop yields need to increase by 2050? [FAO-ESAG, Bruinsma]
- How do climate change and bioenergy alter the long-term outlook for food, agriculture and resource availability? [IIASA, G. Fischer]

Session 3 **Thursday**
25 June
9.00 – 12.30

The investment challenge to 2050: How much, where to invest, what priorities and what sources?

- Investing in developing countries' agriculture: Priorities, problems and needs to 2050 [University of Göttingen, de Haen/Cramon]
- Investment needs to 2050: What are the financial resources needed to meet future food and fibre needs? An investment gap assessment to 2050 based on FAO's long-term outlook for global agriculture [FAO-ESAG]
- Investment requirements under new demands on agriculture due to climate change and bioenergy [IFPRI, Msangi/Rosegrant]
- Drivers of investments in large-scale farming: Evidence and implications [World Bank, Deininger/Byerlee]



Programme

Session 4 **Thursday,**
25 June
14.00 – 17.30

The investment challenge and the technology challenge to 2050

- International investment in agricultural production in developing countries. Win-win or neo-colonialism? [FAO-EST, Hallam]
- Foreign direct investment and other forms of TNC participation in agricultural production: trends and implications. [UNCTAD, Mirza/Miroux]
- Investment in agricultural technology: What are the technology options for raising yields and total factor productivity? How can developing countries better harness the benefits of new technologies in the future? [Byerlee/T. Fischer/Edmeades]
- Is there enough investment in agricultural R&D? [IFPRI, Beintema/Elliot]



Programme

Session 5 **Friday,**
26 June
9.00 – 12.30

Feeding the world in 2050: The global policy challenge

- Trade and support policies to 2050: What can we expect from freer trade and a growing globalization in food and agriculture? Do we have the right trade and support policies in place to promote and foster international food security? [FAO-EST]
- Synchronizing trade liberalization, development and aid to 2050. [OECD, HLM, May]
- The role of “non-distortionary” support for long-term agricultural development [FAO-EST]

Session 6 **Friday**
26 June
14.00 – 17.30

Africa’s special role, problems and needs: What development model for Africa?

- How can Africa master its multiple development challenges of high population growth, climate change and HIV/AIDS? [Tshwane University, Binswanger]
- Can the smallholder model deliver poverty reduction and food security for a rapidly growing population in Africa? [ODI, Wiggins]
- Can large-scale agriculture provide a new development paradigm for African agriculture? [Oxford University, Collier/Dercon]

Concluding discussion, outlook and brief summary of the chair