

An International Assessment of the Role of Agricultural Science and Technology for Development

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The Consultative Process

The World Bank announced at the WSSD that the Bank and FAO would undertake a consultative process to assess whether an international assessment of Ag S&T for Development was needed, and if so:

- determine the scope, objectives and value-added of an international assessment, the key questions, and the principles and procedures
- develop an appropriate organizational structure
- build support among stakeholders, institutions and users

10 regional consultations were conducted, involving more than 800 individuals from the full range of stakeholder groups from 108 countries – farmers to governments

Consultative Process

- web-site: www.agassessment.org
- regional consultations in:
 - Egypt – Middle East, North Africa, Central and West Asia
 - France – Eastern and Western Europe
 - USA – North America
 - Peru – South America
 - Costa Rica – Central America
 - India – South Asia
 - Fiji – Pacific Islands and Australia
 - Indonesia – Southeast Asia
 - Ethiopia – Sub-Saharan Africa
 - China
- briefings at meetings of ASARECA (Kenya), CGIAR (Philippines), COAG (Rome), and FARA (Dakar)

Stakeholders involved in the consultative process

- Governments
- Private sector
- NGOs including consumer organizations
- Producers (farmers, fishers, pastoralists)
- Multilateral organizations
- Foundations
- The scientific community

Co-chairs

Louise Fresco

UN Food and Agriculture
Organization

Seyfu Ketema

Association for Strengthening
Agricultural Research in Eastern
and Central Africa

Claudia Martinez Zuleta

Formerly, Ministry of
Environment, Colombia

Rita Sharma

Govt of Uttar Pradesh, India

Robert T. Watson

The World Bank

Steering Committee

The 5 **Co-chairs**

- **Governments** (12) Australia, China, Finland, France, Germany, Hungary, Ireland, Morocco, Russia, Uganda, UK, USA
- **Private sector entities** (5)
- **NGOs** (5) – advocacy and delivery
- **Producer groups** (4)
- **Consumer groups** (3)
- **At-large scientists** – (3)
- **Scientific organizations** (9): ACTS, CABI, CGIAR, GFAR, CTA, IICA, ICRW, ICSU, TWAS
- **UN bodies** (4): CBD, UNEP, UNFCCC, WHO
- **Foundations and Unions** (3): AATF, IUCN, Rockefeller Foundation

Steering Committee Recommendations

- An international assessment is needed
 - Historical lessons
 - Plausible futures
 - Knowledge, science and technology
 - Institutions and policies
- Intergovernmental structure but with multi-stakeholder Bureau
- Co-sponsored by World Bank, FAO, WHO and UNEP
- World Bank to host the secretariat, with staff seconded from within and outside other agencies

Plenary Decisions

The first intergovernmental meeting of the IAASTD, attended by 160 representatives from 45 governments, private sector, NGOs, producers, consumers, scientific community, international organizations, including the CGIAR, the Multilateral Environment Agreements (e.g., CBD, CCD, Ramsar) and the co-sponsoring agencies agreed in Plenary on the:

- Objectives
- Goals
- Scope
- Key questions
- Design phase
- Preparation
- Peer-review processes
- Outputs
- Timetable
- Budget
- Governance structure

Plenary Decisions

The plenary agreed that the overarching question which provides the framework for the IAASTD is:

“How to reduce hunger and poverty, improve rural livelihoods, and facilitate equitable, environmentally, socially and economically sustainable development through access to, and use of agricultural knowledge, science and technology”?

Plenary Decisions

Four broad questions:

- What are the development and sustainability challenges that can be addressed through agricultural KST?
- What are the likely positive and negative consequences of agricultural KST to the development and sustainability goals?
- What are the enabling conditions required to optimize the uptake and diffusion of agricultural KST?
- What investments are needed to help realize the potential of agricultural KST?

Plenary Decisions

Structure

1. Historical lessons
2. Plausible futures (now to 2050)
3. Relevance, quality and effectiveness of agricultural KST, and institutions and policies in relation to the broader objectives of :
 - Hunger and poverty reduction and the improvement of rural livelihoods and incomes
 - The environment (e.g., water, soils, biodiversity, climate)
 - Equitable, socially and economically sustainable development
 - Human health (e.g., nutrition and food safety)

Plenary Decisions

Structure

- A global and five sub-global assessments
 - Sub-Saharan Africa
 - East and South Asia and the Pacific
 - Latin America and the Caribbean
 - Central and West Asia and North Africa
 - Europe and North America
- Each sub-global assessment will be coordinated through a regional institute

Value of the Proposed Assessment

The Assessment process will bring together a wide range of stakeholders involved in the agricultural sector to:

- share views;
- gain common understanding and vision for the future (present to 2050), in part based on understanding the past;
- develop new partnerships; and
- provide robust information for decision makers.

The Assessment will anticipate the challenges that the world will face over the next 50 years through the work on plausible futures.

The Assessment would help identify public and private sector research and funding priorities, determine the effectiveness of institutional systems and provide options for improvement.

The Context

Changing Demand

- **Increasing population:** increased demand
- **Economic growth:** increased demand and diversification, i.e., increased demand for meat and nutritional content

Limitations

- **Less water:** increased demand from other sectors and decreases in arid/semi-arid areas due to climate change
- **Less arable land:** declining soil fertility, land degradation and urbanization
- **Increasing land policy conflicts**
- **Less labor:** HIV/AIDS and endemic diseases
- **Increasing levels of pollution:** acid deposition and tropospheric ozone
- **A changing climate:** increasing variability and more extreme events (heat waves, droughts and floods)
- **Less genetic diversity:** a loss of biodiversity at all levels

The Context

Science and Technology

- Accelerating crop biotechnology breakthroughs
 - Some concerns over the environmental and human health implications of transgenic crops
 - Growing IPR concerns
- Increasing demands for nontraditional agricultural products
- Growing role of information technology in agriculture

Trade and Markets

- WTO agriculture talks now making progress in addressing
 - agricultural subsidies
 - trade barriers between and within countries
- Lack of infrastructure in many developing countries

Funding levels and sources for agricultural R&D

- Private sector funding growing, focus on OECD markets
- S&T investments can yield enormous benefits –but are current public/private sector research activities adequate and effective?

IAASTD

- The proposed assessment will **complement, not duplicate**, other assessment activities, e.g.,
 - the **IAC** Study on Science and Technology Strategies for Improved Agricultural Productivity and Food Security in Africa
 - the **MDG** Task Force on Hunger
 - The **IWMI** Comprehensive Assessment of Water Management in Agriculture: Guiding Policy Investments in Water, Food, Livelihoods and Environment
 - The **CGIAR** Science Council Strategy and Priority Setting Exercise
 - The relevant chapters from the **MA**
 - The relevant chapters from the **IPCC**

What is an Assessment?

- An assessment is a **critical evaluation** of information, for purposes of guiding decisions on a complex, public issue
- The topic is defined by the stakeholders, who are typically decision-makers. Assessments are policy relevant, but not prescriptive
- Assessments are conducted by a credible group of experts with a broad range of disciplinary and geographical experience, in a balanced and transparent way
- Assessments *reduce* complexity but *add value* by summarisation, synthesis and sorting what is known and widely accepted from what is not known (or not agreed)
- Assessments relate to the situation at a particular time and in a given geographical domain. Often repeated after some period.

Assessment vs Review

	Review	Assessment
<i>Audience</i>	Scientists	Decision makers
<i>Done by</i>	One or a few	Large and varied group
<i>Topic</i>	Simple and narrow	Broad and complex
<i>Identifies gaps in</i>	Research: curiosity-driven	Knowledge for implementation: problem-driven
<i>(Un)certainty statements</i>	Not required	Essential
<i>Judgement</i>	Hidden	Required but clearly flagged
<i>Coverage</i>	Exhaustive, historical	Sufficient to deal with main range of uncertainty
<i>Synthesis</i>	Not required	Essential to reduce complexity

Assessment Characteristics

Agreed features:

- Intergovernmental with a multi-stakeholder Bureau
- Present local, regional and global perspectives
- Involve experts from all stakeholder groups in their individual capacity in the design, preparation and peer-review
- Conducted according to an open, transparent, representative and legitimate process
- Evidence-based, not based on value systems
- Policy relevant, not policy prescriptive, presenting options not recommendations
- Risk assessment, management and communication
- Technically accurate
- Present different views; quantify uncertainties

IAASTD Characteristics

Structural features:

- Intergovernmental process, with a multi-stakeholder Bureau
- Co-sponsored by seven international agencies – FAO, GEF, UNDP, UNEP, UNESCO, World Bank and WHO
- Based on an international consultative process and well-defined user needs
- Prepared and peer-reviewed by hundreds of experts from all stakeholder groups

Substance features

- Multi-thematic (nutritional security, livelihoods, human health, environmental sustainability)
- Multi-spatial using a consistent framework
- Multi-temporal (now to 2050) employing plausible futures
- Integrates local and institutional knowledge
- Assesses scientific knowledge and the effectiveness of institutions and policies

Key Challenges

- Achieving the right balance between:
 - Local and global issues
 - Near-term and long-term issues
 - S&T and policy/institutional issues
- Integrating local and institutional knowledge
- Ensuring scientific rigor and differentiating between evidence-based findings and different value systems and ideological positions

Proposed Intergovernmental Structure

Panel

Co-chairs - developed and developing country governments have voting rights
civil society are active participants but cannot vote

Secretariat

technical support unit
communications and outreach
management and oversight

Multi-stakeholder Bureau

30 Governments
30 non-government representatives
Ex-officio members: Agency cosponsors and GEF

Global Assessment

Sub-Global (community to regional scale) Assessments

Roles of Plenary and Bureau

- **Government representatives in plenary make decisions, with input from non-governmental representatives**
 - approved the objectives, goals, scope, key questions, design phase, preparation, peer-review processes, outputs, timetable, budget, and governance structure
 - approve the summary for decision-makers

- **Bureau**
 - select co-chairs
 - select authors
 - approve the detailed scope and timeline
 - approve and manage the detailed budget
 - oversee outreach and communication
 - oversight of the sub-global assessments by regional representatives

Co-chairs

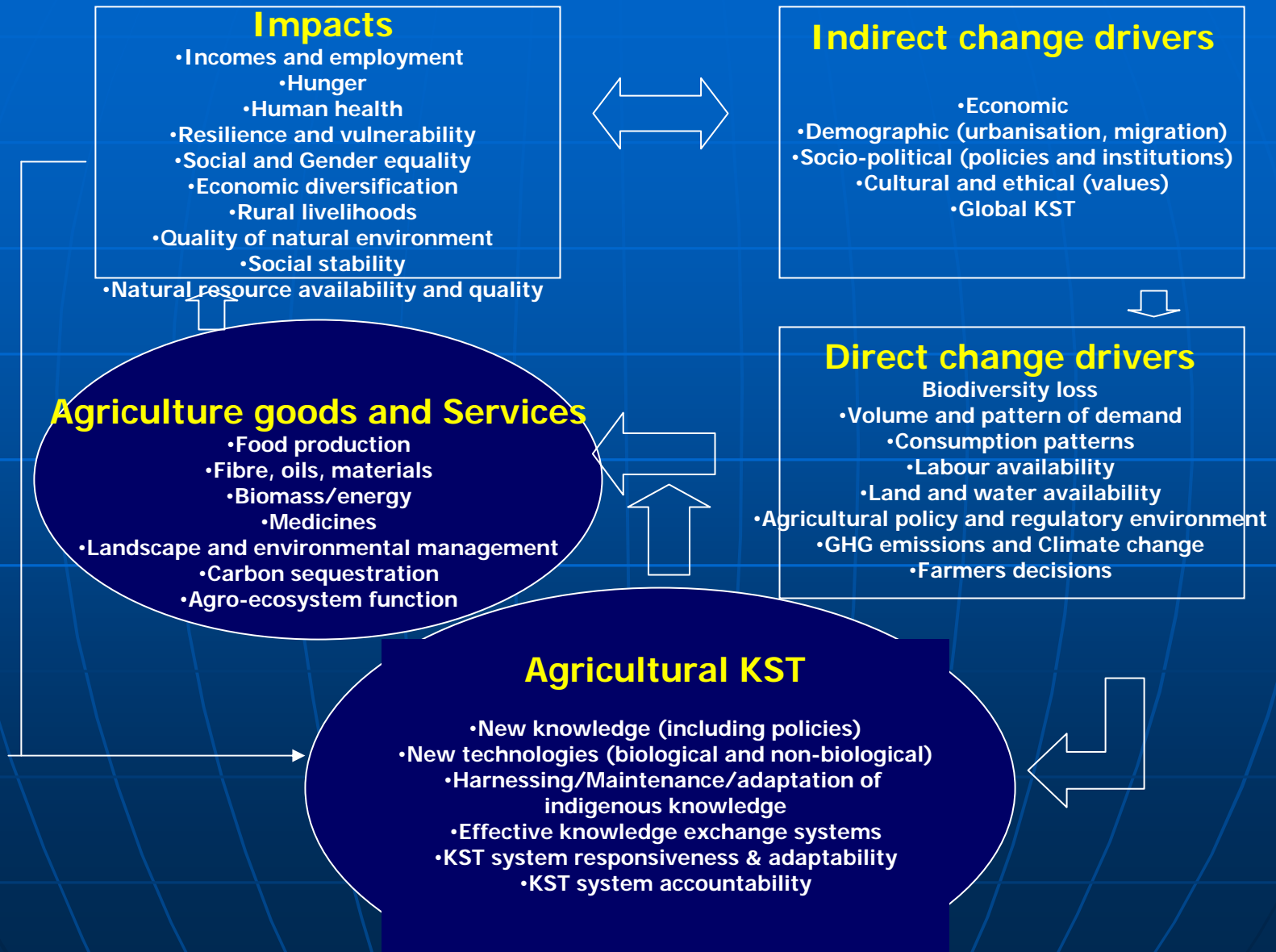
- **The Bureau selected**

- Dr. Hans Herren – Former Chief Executive and Director General International Centre of Insect Physiology and Ecology (ICIPE) and 1995 Wood Food Prize Winner
- Dr. Judi Wakhungu – Executive Director for African Centre for Technology Studies (ACTS)

Expected Meeting Outputs

- A detailed annotated outline for the respective global/sub-global component of the IAASTD
 - The structure of the global assessment was developed in Bangkok, based on the broad outline agreed by the Nairobi Plenary
 - The sub-global assessments will use the conceptual framework developed in Bangkok and the broad structure of the global assessment – your job is to focus on the most important issues (for the sub-global components only: for your region using the output from the respective regional consultation , i.e., what are the most important questions we need to address for the respective region)
 - Need the equivalent of the table of contents, with a detailed paragraph explaining the content for each chapter and sub chapter
 - A suggested list of experts (with appropriate geographic and stakeholder representation) for each chapter and sub-chapter

IAASTD Conceptual Framework



Overall Structure

- A: Scene setting – develop and describe the over-arching framework -- demonstrate the central role of agriculture in hunger, poverty alleviation (livelihoods), human health, environment and social considerations (gender and equity) – what is agricultural KST
- B: Current situation and how did we get here, i.e., the role of agricultural KST and policies and institutions in hunger, poverty/livelihoods, human health and environment - looking at the synergies and trade-offs among the four basic issues – in the framework of sustainable development
- C: Plausible futures (four or five broad “global” scenarios, with regional specificity based on the Millennium Ecosystem Assessment) - analyze the positives and negatives for hunger, poverty alleviation, human health, environment and social considerations (gender and equity) both qualitatively and quantitatively
- D: A detailed analysis of the role of AKST, including investment strategies and S/T knowledge institutions, and policies and institutions in realizing positive outcomes and avoiding negative outcomes (analyzing the trade-offs and identifying the synergies)

Relationship between global and sub-global assessments

- The individual global and sub-global design team meetings will be followed by an “integrated” design team meeting of experts to ensure consistency between the global and sub-global assessments – this meeting will be comprised of representatives from each of the global and sub-global design team meetings
- The experts will then meet for two days with the Bureau to review and finalize the design of the global and sub-global assessments and to select the experts for each assessment

Thank You