



Australian Government

**Australian Centre for
International Agricultural Research**

INTERNATIONAL ASSESSMENT OF AGRICULTURAL SCIENCE FOR TECHNOLOGY AND DEVELOPMENT (IAASTD)

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Background

- Initiated in 2004 by World Bank with a multi stakeholder group including FAO; UNDP; UNEP; UNESCO; WHO; etc.
- Funds were also provided from a number of countries such as USA, France, Canada, European Commission and Australia
- Exercise included CSO/NGO participation as well as private sector companies
- About 400 authors were selected by the Bureau to prepare the IAASTD report



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Scope of IAASTD

- Modelled on a hybrid of the earlier Inter-governmental Panel on Climate Change (IPCC) exercise and the non-government Millennium Ecosystem Assessment
- IAASTD designed to provide:
 - *Global and sub-global assessments on the role of Agricultural Knowledge, Science and Technology (AKST) in reducing hunger and poverty, in improving rural livelihoods and health, increasing incomes and facilitating equitable and economically sustainable development*
 - *Provide robust information for decision makers to facilitate policies and practices to enable AKSTs contributions, institutions and practices*
 - *Bring together a range of stakeholders across the agricultural sector to gain common understanding and vision*



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Processes of IAASTD

- Oversighted by an advisory bureau comprising government civil society, private sector and scientific institutions
- Global and 5 sub-global reports were developed on a multidisciplinary basis
- Main reports were used to develop an overall synthesis report and a range of global and sub-global summaries for decision makers (SDM) reports
- Reports provided a comprehensive examination of important issues influencing contribution of AKST for development and earlier drafts were the subject of review and comment by participating governments
- Governments were asked to accept/approve reports

Key Issues in IAASTD

- Reports were very wide ranging and inclusive of different views and analyses
- Themes covered included: bioenergy; biotechnology; climate change; human health; NRM; trade and markets; traditional and local knowledge and community innovation; women in agriculture
- The reports were based on a combination of scientific analyses together with a series of assessments of past AKST performance in these areas, descriptive cost/benefit reviews, positive and negative consequences and suggestions for future improvement in AKST role for development
- Assessments were wide ranging and areas of debate included trade and markets; role of modern science including biotechnology, IPR issues, and various policy options suggested
- Reports raised real concerns at the level of technology transfer to smallholder farmers; the impact of modern technology in terms of equity and environment and the scope for improved partnerships between traditional and modern/scientific farming methods

Impacts of IAASTD

- Potential areas of impact include:
 - *Poverty and livelihoods*
 - *Food security*
 - *Environmental sustainability*
 - *Human health and nutrition*
 - *Equity and women in agriculture*
 - *Public and private investment*
 - *Bioenergy and biotechnology*
 - *NRM and climate change*



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Consideration of Issues

- Reports provided a timely and useful compendium of the immense challenges facing agriculture in developed and developing countries
- Assessment acknowledges enormous contributions of AKST to yields, nutrition and growth but includes negative assessment on issues of equity, environment and social consequences
- In some regions small farmers have not benefited noticeably from AKST and negative environmental impacts were recorded



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Areas for future attention

- Added AKST attention to marginalised communities and those with biophysical constraints (e.g. small grain cereals and legumes)
- Critical role for private and public sector investments
- Need for good quality seed and attention to soil degradation and post harvest losses
- Developing AKST to increase market access for rural communities and improved supply chains
- Combining formal and traditional science and knowledge to improve pathways and innovation (rather than just invention)
- Need to rekindle public sector agricultural R&D investments
- Combining AKST advancement with rural infrastructure and local governance as well as rural education
- Need to rebalance focus towards NRM and food security rather than only production to achieve equity and avoid ecological damage

Options for Action

- Need for fundamental shift in AKST including science, technology, policies, institutions and capacity development
- Recognition of the multiple role of agriculture in the diverse social and ecological context
- Need to change the incentive systems along value chains to internalise rewards
- Changes must focus more on resource poor farmers and women
- Importance underlined of the potential environmental health and social impacts of technology and regulatory frameworks



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Options for Action (cont'd)

- Nevertheless AKST can contribute to radically improving food security and rural community livelihoods
- AKST can help to rehabilitate degraded land and reduce environmental and health risks associated with food production
- Success will require improved public and private investment in AKST, the development of supporting policies and institutions and a redirection with interdisciplinary, holistic and systems based approaches to knowledge sharing



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The Future

- Since publication of the IAASTD report the world has endured a renewed global food security crisis
- The IAASTD material provides for governments and other stakeholders a timely array of assessments and options for consideration
- As governments in developing countries address the on-going global food security concerns the global and sub-global reports will add to informed decision making
- It is an open question as to the level of formality which may be used to maintain IAASTD momentum – a matter for stakeholders



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