

ASARECA

ASSOCIATION FOR STRENGTHENING AGRICULTURAL
RESEARCH IN EASTERN AND CENTRAL AFRICA

ASARECA/WORLD BANK MEETING

PRE-REGIONAL CONSULTATION ON THE
ASSESSMENT OF THE ROLE OF
AGRICULTURAL SCIENCE AND
TECHNOLOGY IN REDUCING HUNGER,
IMPROVING LIVELIHOODS AND
STIMULATING ECONOMIC GROWTH OVER
THE COMING DECADE

Le Chateau, Inter-Continental Hotel,
Nairobi, Kenya
09:00 hrs – 12:30 hrs
31 January 2003

**ASSESSMENT OF THE ROLE OF SCIENCE AND
TECHNOLOGY IN REDUCING HUNGER, IMPROVING
RURAL LIVELIHOODS AND STIMULATING
ECONOMIC GROWTH OVER THE COMING DECADE**

**PRE-REGIONAL CONSULTATIVE MEETING HELD AT THE INTER-
CONTINENTAL HOTEL, NAIROBI, KENYA ON FRIDAY, 31 JANUARY
2003 FROM 09:00 HRS – 12:30 HRS**

IN ATTENDANCE

- 1) Her Excellency, Dr. Speciosa W. Kazibwe, Vice-President of the Republic of Uganda and Co-Chair, IAC Study Panel
- 2) Hon. Mr. Mwakilau Makwere, Assistant Minister, Ministry of Foreign Affairs, Republic of Kenya.
- 3) Rudy Rabbinge, Co-Chair, IAC Study Panel
- 4) Robert T. Watson, World Bank, Co-Chair, International Assessment of Agricultural Science and Technology
- 5) Seyfu Ketema, ASARECA, Co-Chair, International Assessment of Agricultural Science and Technology.
- 6) Committee of Directors (CD) of ASARECA:
 - 1) Jean-Paul Bitoga, Chairman, ASARECA CD and Director General, ISABU, Rwanda
 - 2) Semere Amlesom, Vice-Chairman, ASARECA CD and Director General, DARHRD, Eritrea
 - 3) Joseph K. Mukibi, Director General, NARO, Uganda
 - 4) Lema Ki Munsenki, Président-Délégué-Général, INERA, D.R. Congo
 - 5) Zinash Sileshi, Director Animal Sciences (Representing Dr. Demel Teketay, Director General, EARO, Ethiopia)
 - 6) Romano Kiome, Director General, KARI, Kenya – Session Chairperson
 - 7) Elie Mugunga Muhinda, Director General, ISAR, Rwanda
 - 8) Salih Hussein Salih, Director General, ARC, Sudan
 - 9) Jeremiah Haki, Director General, DRD, Tanzania
 - 10) Eltayeb Abdelmalik, Dean's Representative, Gezira University, Sudan
- 7) Donors:
 - 1) Diana Putman, Director, Food Security Office, USAID/REDSO/ESA Nairobi
 - 2) Peter Ewell, Head, Sustainable Development Division, USAID/REDSO/ESA
 - 3) François Gasengayire, IDRC, Nairobi
- 8) Representatives of IARCs and other Advanced Research Institutes:
 - 1) Carlos Seré, DG, ILRI
 - 2) Dennis Garrity – DG ICRAF
 - 3) Kwesi Atta-Krah, Regional Director, IPGRI
 - 4) Douglas Merrey, Director for Africa, IWMI
 - 5) Roger A. Kirkby, Pan African Coordinator, CIAT
 - 6) Charles C. Crissman, Regional Representative, CIP
 - 7) Said Silim, Regional Representative, ICRISAT
 - 8) Dennis. K. Rangi, Regional Director, CAB International
 - 9) Ralph von Kaufmann, Director, External Relations, ILRI
 - 10) Bruce Scott, Director, Training, ILRI
 - 11) Hans Herren, Director General, ICIPE
 - 12) Howard Elliott, ISNAR
 - 13) Eugene Terry, AATF
 - 14) Monty P. Jones, Executive Secretary, FARA

- 15) Chungu Mwila, COMESA
- 16) Foday Bojang, African Union
- 17) Nyamajeje C. Wegoro, East African Community
- 18) Awad AbdelRahim Mohamed Hussein, IGAD
- 19) Solomon Haile-Mariam, African Union – IBAR
- 20) Joseph Wekundah, Biotechnology Trust Africa
- 21) Samuel Wakhusama, ISAAA Africenter
- 22) Melchior Nahimana, IRAZ, Burundi
- 9) IAC Study Panel Members
 - 1) Jim Ryan
 - 2) Sam Chema
- 10) Other invited guests
 - 1) David S. Muduuli, Permanent Secretary/Principal Private Secretary to H.E. the Vice-President of Uganda
 - 2) John Aluma, Deputy Director General, NARO, Uganda
 - 3) Adiel Mbabu, Technical Officer – Planning, ASARECA (Rapporteur)
 - 4) Adyeri Marunga, Executive Assistant, Office of the Executive Secretary, ASARECA (Rapporteur)

OPENING

Dr. Romano Kiome, Chairperson of the session on the “Assessment of the Role of Agricultural Science and Technology in Reducing Hunger, Improving Livelihoods and Stimulating Economic Growth over the Coming Decade in Africa,” opened the meeting and welcomed to the meeting, Her Excellency, Hon. Dr. Speciosa Kazibwe, the Vice-President of the Republic of Uganda and everybody present. He also introduced Hon. Mr. Makwere, the Assistant Minister, Ministry of Foreign Affairs, Republic of Kenya. He noted that this was an important occasion, organized by ASARECA and the World Bank, which was meant to take stock and discuss the role of science and technology in improving livelihoods. He said that this process was important for Africa in terms of poverty and food insecurity and that its being held at that moment, shortly before the Inter-Academy Council meeting was very opportune. He outlined that the meeting would be led by a presentation from the Co-Chairs, i.e., Dr. Seyfu Ketema (ASARECA) and Dr. Robert T. Watson (World Bank) and that the participants were expected to listen and to give their comments and views on the proposed assessment.

PRESENTATION OF THE PROPOSAL

Dr. Seyfu Ketema, Co-Chair of the International Consultative Process, presented the proposal. Briefly he outlined the challenge as current undernourishment to the tune of 800 million people in the world and yet in 25 – 50 years food demand will double. Therefore, the agricultural sector will have to continue growing in a sustainable manner in order to feed the world, enhance rural livelihood and increase income without degrading the environment. However, he said, steady and sustainable growth is going to face the following problems: less water, less arable land, less labour, increased pollution, climate change for the worse and contentious agricultural policies and technologies. With levels and sources changing, funding needs to be managed so that the most effective research activities are funded. The interplay between agricultural practices, the environment and agricultural productivity needs to be looked at to see what can and cannot be done to meet the future challenges. Decision-making needs to be well

informed by sound science, and scientific information will need to be assessed nationally and internationally by scientific, technical and economic experts. The value of international assessment will be in raising the awareness of stakeholders and prompting informed action, especially on contentious and complex regional and global issues.

The proposal is therefore, to carry out an international assessment on the role of agricultural science and technology in meeting the challenges faced by providing stakeholders with the information they need to make informed decisions in setting priorities and funding levels, designing and implementing policies and in using technologies that enhance agricultural productivity in an environmentally sustainable manner. The assessment, therefore, will answer the question: “What are the economic, environmental and social risks and benefits of all technological and policy options?” What needs to be done to develop the international assessment is to: ensure that the international assessment is actually adding value and that it is demand driven; that there is an organizational and governance structure with clear principles and procedures and a defined scope. There should be chairs, authors and a peer-review system and the reports of the assessment should be approved.

The features of the assessment are that it should be policy relevant, build on existing literature and assessments; assess, manage and communicate risk; be technically accurate; present different views and quantify uncertainties; undergo peer reviews by all stakeholder groups; open, transparent, representative and legitimate; involve all stakeholders and take local, regional and global perspectives. It will lead to a consensus on what is known and what is unknown and uncertainties; revitalizing of agricultural S&T; acknowledgement of the needs of producers and consumers; identification of key gaps in knowledge and institutions; establishment of knowledge base for prioritizing international research and development agenda; increasing of public sector funding and improved international coordination of research; identification of new and improved approaches to strengthening delivery mechanisms to producers; and informing of the public and decision-makers about food safety and environmental implications of different technologies.

The six-month consultative process, whose aim is to recommend whether or not to proceed with an international assessment, already began with a consultative meeting held in Dublin in November 2002. This meeting in Nairobi, on 31 January 2003, was only a pre-regional meeting. Between January and April 2003, regional meetings, videoconferencing and web-based consultations will be held. The regional consultations will be aimed at focusing on core S&T issues, a broad definition of agriculture, discussing relevant technologies, policies and institutional issues, recognizing that assessments analyse existing knowledge and identify gaps where more information or research is needed, and examining the pros and cons of different governance/organizational structures. In May 2003, the Steering Committee will develop and place on the website the initial recommendations and in June 2003 the final recommendation will be made.

The objectives of the meeting on 31 January 2003 were outlined as:

- Discussing the scope, key questions and value of the proposed assessment.
- Focusing on questions that decision makers needed answered in order to formulate policies that result in fewer hungry and poor people, particularly with reference to East and Central Africa

- Identifying contextual issues.

CONTRIBUTIONS FROM THE PARTICIPANTS

1. ADOPTION

In eastern and central Africa, there has been a lot of research in technology development, but there is an adoption problem, which does not wholly lie in dysfunctional extension systems or in the poverty of the people in the region. This problem results from the lack of markets where farmers can sell the produce they get from using the new technologies. The farmers find problems disposing of their bumper produce. The losses they thus incur discourage further adoption. Hence, the many technologies that are lying around unexploited. Farmers also unable to adopt because of resource constraints.

The biggest problem in Africa, however, was felt to be markets and marketing infrastructure. What must be done to get efficient and effective markets?

2. TECHNOLOGY TRANSFER

Within Africa there are disparities in technological development. For example, in South Africa and Kenya productivity is high due to advanced technological development whereas in other countries the majority live at subsistence and below. What causes this gap? How can technologies be transferred within Africa? What blocks the transfer of technologies; do we need innovative mechanisms?

The assessment could call attention to technologies that work, e.g., the control of the cassava mealy bug, and show how can they be transferred elsewhere.

3. FUTURE TECHNOLOGY NEEDS

We need to work much more on innovation systems. More strategic work is needed for more successful uptake. One of the areas that the potential study could help us with would be to promote good examples.

4. BIOTECHNOLOGY

The issue of misinformation, disinformation and lack of information needs to be addressed. What information is needed in order to gain more confidence? Indigenous knowledge, is it really improving our performance at the ground level? What is needed though is a good assessment of the risks and benefits of biotechnology.

5. INSTITUTIONAL REFORMS

The task of increasing productivity in Africa is a daunting one. How do we do it? Reforms are needed at all levels in national and international institutions to ensure that useful technologies are developed and dispersed. Institutional reforms are needed so that the decline in natural resources is reversed and natural resources are used sustainably.

6. WATER

There is a continuing discontinuity between the agricultural sector and the water sector. The agricultural sector seems to take water for granted yet water is going to be one of the key constraints.

7. PLANNING

How can the National Agricultural Research System (NARS) better target poverty reduction given the capacity they have?

8. NATURAL CATASTROPHES AND CONFLICTS

When there are emergencies like drought, the interest of farmers shifts from long to short-term opportunities. How should civil unrest this be handled when it impedes agricultural development?

9. POLICY

Need better translation of policies to the ground level and better balance of support from donors and other supporters. Policy is needed but policy must be generated from properly done research, so research must come before policy.

10. EDUCATION

Education should also be looked at. Most of our school systems are good at producing students who just learn by heart but cannot put their knowledge in practice. Could this possibly be at the heart of the adoption problems?

Farmers sometimes follow prevailing fashions and fads; need to ensure practices have value.

11. IS THERE NEED FOR AN ASSESSMENT?

Is an assessment the best way to use 10 million dollars? The most important issues in Africa today are things like agricultural research, girls' education, trade, etc. and not just productivity gains. What is the utility of this assessment, what is its end? There are plenty of assessments that have been carried out. The Inter-Agency task force being one, there are others that were carried out by IGAD, USAID, etc. Africa knows its problems – we do not need prescriptions made by outsiders because they do not address the problems on the ground. Is this assessment going to be fruitful? During the coming months, we need to clearly define the ends of such an assessment.

12. WHERE IS THE ASSESSMENT NEEDED?

Local and not global assessments are what is needed. The global level comes secondary to the regional and other lower levels in Africa.

13. SCOPE OF THE ASSESSMENT

Intervening in the agricultural sector alone, without interventions elsewhere - e.g., unemployment, off-farm employment, wealth creation - cannot help the agricultural

sector. We should not be only occupied with poverty eradication but rather with wealth creation.

How do we complement and develop synergism – vertical and horizontal linkages. Many meetings were held on the issue of what Africa's problems are. What are the mechanisms that should show how to do the assessment at the various levels?

14. TIME SPAN AND DESIGN

We really need results very fast. The recommendation is to have regional assessments.

SOME CLARIFICATIONS FROM THE CO-CHAIRS, QUESTIONS AND ANSWERS

This is a time of very many contentious issues. Is a thorough debate necessary? This assessment must not affect in any way any on-going work. What is a management structure that is open, transparent and acceptable to all stakeholders? There are other models, e.g., the Inter-Academy Council one, should this assessment take on any of these models? Should we limit ourselves to pure science? What should be the scope of this study? What is needed is the way forward for this proposal. What is the challenge? Is it poverty reduction or increasing prosperity? The governance structure for the assessment – is this going to be a bureaucracy or what? How do we carry this process forward within ASARECA?

Some answers from the WB: Water is important to agriculture and the Dublin principles are indeed essential. Yes, science is under attack in an ideological way and this assessment could help. But the assessment is needed internationally not at a local level to buy credibility with all stakeholders on issues that are global – on safety or lack of safety. There is no use, for example, of doing an assessment in one particular country on biotechnology unless all the scientists are working together. On the issue of having enough technologies, doubled food production, which will be needed in the coming 25 years or so cannot be managed with the technologies of today.

The Challenge is what the WB wants to hear from the participants. There is no single challenge. The issue is how do we use agriculture to stimulate economic growth and stimulate off-farm income. How do we get rid of poverty without encroaching on the environment? What are the key challenges?

Organisational structure – there are many possible ways of organizing this assessment, all assessments are done with different structures and the question here is which would be the best structure that would carry out the assessment best? This structure should be flexible and credible to all stakeholders.

The many assessments sitting on the shelves unused are because all stakeholders/actors were not at the table when those assessments were carried out. So there is a problem of ownership.

ASARECA: We need to do something. There is a world of experience and different perspectives on what needs to be done. All the views are right. The objective is to help each other to see different perspectives. What is it that we need to do? In Africa and all other developing countries, there is poverty and natural resource degradation. If trends

continue like this, the situation might even get worse. Some say turn subsistence farmers into commercial farmers. In Africa we will work for it, but on the other hand we have 14 million hungry – are they subsistence farmers? Because we have neglected the problems in the past, the subsistence farmers are being changed to less than subsistence and we have an added problem. Yes, in South Africa there is technology, but there is disruption in our environment. We have indigenous knowledge, which was developed in different circumstances in the past. In some areas the technologies that we have will serve us, but new situations are coming into the picture and they require new technology. Each of us cannot survive on our own. The things that happen at the global level will affect us and since we cannot wait and must act, let us act in an informed way. We must organize ourselves to act in a better way. How do we reconcile ourselves to act on our problems now and also act on global issues in a way that will make a difference? The international assessments can give us a clue as to what we need to do.

WB: The idea is to stimulate agriculture and then other sectors, e.g, organic farming, education, etc. will follow suit. The key goal is to ask, are we funding agricultural sciences adequately or not, if not can we stimulate agriculture in the various sectors? About civil unrest, this assessment cannot deal with the situation directly, but it can look at the implications of conflict, etc.

The assessment itself is meant to find out what do we know and what don't we know, it is therefore meant to provide knowledge. The assessment would want to build some level of capacity development for young experts.

What do we invest in? Are we really investing in the right type of investment?

Recapitulation

Need for the assessment: Yes, with reservations

If yes, then there are a number of questions that need to be raised, e.g., what other sectors should be involved, international or regional?

How? Inter-governmental. The assessment should be more inclusive.

Where? Global level if it is summing up from the local level. Different areas require different levels. But there are international questions that need to be answered but from different levels. Strong feelings for the local level.

When? The sooner the better.

Who? Local and as inclusive as possible. We in the SROs are best placed to do the assessment because we live with the problems. If it is done from a panel of self-made experts, it may not be as inclusive as possible, it should rely more on grass-root information.

Time span: As short as possible. The quicker and sharper the better.

There are also capacity building concerns.

CLOSING

Hon. Mr Makwere, Assistant Minister, Ministry of Foreign Affairs welcomed the Vice-President of Uganda to Kenya and thanked her for taking the time to look at these important issues that touch on Africa's very survival. He said that the topic of the assessment is extremely important since agriculture is the center of it all in Africa. Our communities survive on agricultural activities so there is need to come up with changes that will sustain livelihoods. He sincerely hoped that the results of the assessment will be for a better tomorrow and remarked that all terminologies should be focused on ensuring that the lifestyles of our people are secure and beneficial to our societies. He then called on Hon Dr. Speciosa Kazibwe, the Vice President of the republic of Uganda to make the closing remarks.

The Vice President closed by congratulating Hon. Mr. Makwere for having won the elections, which ushered in peaceful change in Kenya and therefore giving more hope for the future of Africa despite the many pessimists.

She said that problems are good because they sharpen the brain and prevent degeneration of brain cells. She warned scientists to stop seeing science as meant for journals only and that they should take this need for an assessment as a wake-up call. She cautioned that in Africa, people will not just take things for granted. Everyone who wants to do something has to justify why they are doing it. She said that the assessment will give more visibility to the scientists and every body will want a scientist in all their meetings for consultations. The assessment will give the scientists the basis to start learning how to lobby. The scientist is going to have to lobby within the context of the environment around them and the assessment will create more bonding for the scientists. They will learn that togetherness is a strength. The African Union and NEPAD will give the scientists the place they deserve. These organizations will gain the impetus to say that scientists are now the mouth-piece of agriculture. However, even if the scientists know where they are headed, in this globalised world, there are more roads that can lead to Rome than there were in Napoleon times so even if the African scientist knows where he is going, he will need to ask for the best way to get to where he is going.

She thanked everyone for the contribution they were making in their research institutions. The meeting was declared closed at 12:30 pm.