



Productivity and competitiveness of African agriculture in a global economy

Proceedings of the 4th
Forum for Agricultural Research in Africa General Assembly

Sandton Convention Centre, Johannesburg

10-16 June 2007



Some events at the 4th FARA General Assembly, Sandton Convention Centre,
Johannesburg, 10-16 June 2007



Above: Opening of the 4th FARA General Assembly, and below: panel discussions in progress.



Panel plenary CSO



Women at the GA



Plenary closing



FARA GA delegates and Ministers were exposed to the exhibitions of South Africa agriculture technologies



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Why does Africa need FARA? The answer will be found in FARA's capacity to help the continent address the theme of this Assembly.

In FARA we appear to have established an effective catalyst for action.

HE President, Republic of South Africa, Thabo Mbeki



Introduction

As FARA is a forum it is vital that its stakeholders should have ample opportunity to ensure that their priorities are addressed. In order to hear from stakeholders, the FARA Secretariat convenes many stakeholder consultations on priority topics. It also participates in consultancies convened by the whole range of FARA stakeholders. However, the FARA General Assembly is the most important opportunity for the whole Forum to get together to exchange information and views, to receive progress reports, and to set the Forum's agenda. It also provides stakeholders with an opportunity to review the Forum's principal governance instruments and to elect the Forum's office bearers.

The 4th General Assembly was hosted by the government of the Republic of South Africa in Johannesburg from 10 to 16 June 2007. It was characterised by very vigorous participation of 793 delegates from FARA's diverse membership (Table 1).

Table 1. Participants in the 4th FARA General Assembly.

Category	Number
Sub-Regional Organisation	23
National Agricultural Research Institute	105
University	82
Investor	24
Press	13
Regional Organisation	25
Global Organisation.	4
Regional Economic Community	18
Non-Government Organisation	87
Government	156
Political Body	14
International Agricultural Research Centre	91
Farmer's Organisation	36
Private Sector	22
Other	31
UN Agency	4
Agricultural Research Institute	71
Total	806

These proceedings can only present a summary of the discussion that took place in plenary sessions and side events over the seven days but it is an attempt to capture the most important outcomes of the discussions, and the recommendations and decisions of the delegates.

FARA is indebted to the government of the Republic of South Africa for hosting the Assembly and for most generous financial and in-kind support. The contribution of the many South Africans who contributed so willingly and effectively from public and private institutions, and in their own right, to the success of the Assembly is gratefully acknowledged.

Most of all, the success of the Assembly was due to the participants who took the trouble and time to attend, and whose spirit of purpose and unity embodied in the very ethos of the Forum. This was the best possible foundation from which to embark on FARA's new 2007–2016 Strategic Plan.



Highlights of addresses

Hon. Minister for Agriculture and Land Affairs, Republic of South Africa, Ms. Lulama Xingwana

The role of agriculture in the economy of South Africa

“The current South African agriculture is highly dualistic with a small number of commercial operations run predominantly by white farmers and large numbers of subsistence farms run by black farmers. The problems and opportunities are quite different for each group. Agricultural reform continues with a series of measures to address past injustices including land redistribution, agricultural support programmes to disadvantaged farming communities, and a broad based programme of economic empowerment of the black population in the agricultural and food sector.”

“The South African economy, including agriculture, is increasingly integrated in world markets. ... The opening of the agricultural sector placed South Africa among the world’s leading exporters of such agro-food products as wine, fresh fruits and sugar.”

“Europe is by far the largest agricultural trade balance importer, absorbing almost one-half of the country’s agricultural exports. The African market is the second most important destination, accounting for around 26% of exports, with the Asian market slightly less important with an 18% share.”

“... In addition to economic factors, globalisation and domestic social reforms contributed towards a relaxation of stringent interventionist measures.”

“These reforms resulted in the lowering of the average level of tariffs and simplification of the tariff structure while maintaining a tariff escalation profile. The new trade arrangements improved access to foreign markets for farmers, but also exposed them more to external competition.”

“The prosperity of the agricultural sector is linked to the extent to which primary production is aligned to the needs of the economy, both in terms of direct consumption of primary commodities and the demand for agricultural raw materials at the manufacturing level. It is important therefore that the vision for agriculture is seen in a broader view of the larger economy rather than a narrow focus on primary agricultural production.”

I believe that we need to inspire excitement and vibrancy in addressing issues such as global competitiveness, enhancing people's quality of life, adding value and attracting more investment. Ms. Lulama Xingwana, Hon. Minister for Agriculture and Land Affairs, Republic of South Africa

“Agriculture’s role goes beyond a pure economic analysis of the contribution of the sector to the economy, because its relative importance cannot be argued in merely economic terms. Economic objectives stand secondary to social and political objectives and it would therefore be naïve to make use only of standard economic indicators to explain the relative importance of agriculture.”

In conclusion I believe that we need to inspire excitement and vibrancy in addressing issues such as global competitiveness, enhancing people’s quality of life, adding value and attracting more investment. Our common vision should guarantee sustained participation in the South African agricultural economy by all stakeholders who recognise the need to maintain and increase commercial production, to build international competitiveness and to address the historical legacies and biases that restricted the growth and development of agriculture.”

“Balancing more inclusive social policy with a stable and open macroeconomic environment, in which both the role of further agricultural development and the limits of agriculture’s contribution are clearly recognised, is the fundamental challenge.”

Hon. Minister of Agriculture and Land Affairs, Republic of South Africa, Ms. Lulama Xingwana at the Gala Dinner

“The targets for African poverty reduction are well known, but they are not being achieved. Many individual programmes and institutions show good returns on investment in agricultural research and development, but the sum of their collective efforts falls far short of making a significant impact, at the national level, on poverty reduction and food security. To break the poverty trap, the key issues of boosting technology innovation systems and building the scientific and institutional capacity in Africa need to be tackled head on.”

“Technologies are clearly key to getting agriculture moving. But the impacts of extensive investment in technology development and transfer in Africa have been patchy. With new technology options coming on-stream and important new players in the private sector in particular, there are new challenges for the governance of technology in the agriculture sector. The old research and development extension arrangements of 20-30 years ago are not appropriate ...”

“Public–private partnerships that [pursue] the development of innovations are very important because they enable partners to draw from complementary resources and profit from synergy and joint learning.”

“An African agricultural revolution will require commitment and action by government, public, private and non-profit institutions.”

“Public, private and non-profit institutions must invest in developing scientific expertise, appropriate technologies and agricultural research and development.”



Ms. Lulama Xingwana, Hon. Minister for Agriculture and Land Affairs, Republic of South Africa.

“Successful business models need to be in place in African countries in order to increase growers’ productivity to help them feed themselves and move to farming as a source of income. In this regard, an example is the African Biofortified Sorghum, a project funded by a grant from the Bill and Melinda Gates Foundation’s Grand Challenges in Global Health Initiative. This project is an innovative approach towards addressing malnutrition issues in parts of Africa.”

“We must always remember that agriculture is the backbone of African economies. Government, public, private and non-profit institutions must work to bring together the skills, experiences and competencies required to revolutionise agriculture and strengthen the broader economy.”

“The Maputo Declaration - The Declaration on Agriculture and Food Security in Africa, ratified by the African Union Assembly of Heads of State and Governments during its Second Ordinary Session, held in Maputo between 10 and 11 July 2003, provided strong political support to the CAADP. During this session, the Heads of State and Government agreed to adopt sound policies for agricultural and rural development, and committed themselves to allocating at least 10 percent of national budgetary resources for their implementation within five years.”

“I want to end my talk by highlighting the critical importance of African ownership of development initiatives. As we host the 4th FARA General Assembly, I would urge you to consider the long term sustainability of FARA as an African led and owned institution. This requires that we provide resources for its operation and participate in the formulation of its policies and programmes.”

“I have already stated ... that the greatest reservoir of ingenuity is in the minds of the millions of our citizens, most of whom are farmers and livestock keepers...”

HE Rosebud Kurwijila, African Union Commissioner for Rural Economy and Agriculture

HE Rosebud Kurwijila, African Union Commissioner for Rural Economy and Agriculture (Read on her behalf by Prof. Richard Mkandawire, NEPAD Secretariat: Agriculture Advisor)

Promoting the productivity and competitiveness of African agriculture in a global economy

“The African Union is pleased to note that the programme for this assembly has been carefully crafted to address the key issues related to enabling African agriculture to be fully competitive in the global market place.”

“The first session will address the essential first step, which is to identify and prepare to exploit Africa’s competitive advantages in agricultural production, agri-business and related industries.”

“Consistent with the title of the second theme ... we must address the failure of our teaching and learning institutions to deliver the kind and calibre of human capacity on which innovation and, therefore, development depends.”

“... the third theme for this assembly ... will address our capacity to learn from our past successes in influencing agricultural policies. Africa needs policies that are pro-poor and enabling, but our policy makers often have to make decisions without the benefit of thorough prior analysis of the likely outcomes of different options. The agricultural research community should be more proactive in redressing this deficiency and in providing science-based evidence for policy making.”

“We look forward to hearing, in the fourth session, how the FARA proposals [approved at the last FARA General Assembly] have progressed.”

“The fifth session will address the issue of how we can best position agricultural research institutions to be the founts of new knowledge on which innovations can be based and to provide solutions to the constraints on our agricultural innovation systems.”

“The recent outbreaks of Highly Pathogenic Avian Influenza in eight African countries and the unprecedented spread of Rift Valley Fever in Kenya herald the likelihood of more incidences of zoonotic diseases that could imperil human communities. With these concerns in mind we look forward to the outcome for the sixth session on learning lessons from responding to risks and disasters.”

“The seventh session will address the fundamental question of Africa’s capacity to build human and institutional capacity for the agricultural industry.”

“We have tended to regard civil society institutions as watch dogs ... But they are much more than that and should be integrated as vital actors in agricultural innovation ... I hope that the eighth session will inform us about how that can be better achieved.”

“... we still tend to focus solely on rural agriculture. Hopefully the ninth session will redress that view and inform us how we should view peri-urban and even urban agriculture.”

“I have already stated ... that the greatest reservoir of ingenuity is in the minds of the millions of our citizens, most of whom are farmers and livestock keepers. ... in the tenth theme [in this assembly] should take heed of many unheralded successes, such as the Zwai cultivation pits in Niger and Burkina Faso.”

“The Commission of the African Union, AU-NEPAD and the Regional Economic Communities are fully in support of FARA and the SROs’ efforts to strengthen Africa’s national and regional agricultural innovation systems and we are looking to you ... to inform and advise us how we can contribute ... most effectively to promoting the productivity and competitiveness of African agriculture in a global economy.”

HE President of the Republic of South Africa, Thabo Mbeki

(Read on his behalf by HE the Minister of Agriculture and Land Affairs,
Ms. Lulu Xingwana)

“I am pleased to welcome the General Assembly back to Southern Africa. I congratulate all of you, who comprise the Forum for Agricultural Research in Africa (FARA), for what you have collectively achieved since FARA came to life just five years ago at its first general assembly in Maputo in July 2002. So often we have established institutions with profound visions of effective action only to find that we have created yet more talking shops. Meetings and conferences so often serve as substitutes for action. However, in FARA we appear to have established an effective catalyst for action.”

“The implicit question that has been put to all participants is why does Africa need the Forum for Agricultural Research in Africa?”

“The answer will be found in FARA’s capacity to help the continent address the theme of this Assembly ‘Promoting the productivity and competitiveness of African agriculture in a global economy’. This is a very severe challenge, but it is one that must be addressed. It is a challenge that requires input from all stakeholders in African agricultural research and development who are represented by you, the participants in this Assembly.”

“Systems for building critical mass and avoiding gaps in our search for new agricultural knowledge exist through the sub-regional agricultural research organisations (SROs), which are supporting the national agricultural research systems (NARS).”

“At the continental level the chain is completed by the Forum for Agricultural Research in Africa with its links with the SROs on one hand and the Commission of the African Union and the New Partnership for Africa’s Development (NEPAD) on the other. It also has links to global agricultural innovation capacity through its association with the agricultural

I congratulate all of you, who comprise the Forum for Agricultural Research in Africa (FARA), for what you have collectively achieved since FARA came to life just five years ago at its first general assembly in Maputo in July 2002.

Thabo Mbeki, HE President of the Republic of South Africa

research and development forums of other continents and the Global Forum for Agricultural Research (GFAR).”

“To create a viable agricultural innovation capacity capable of turning African agriculture around, FARA with the SROs and their stakeholders at all levels have proposed a combination of actions ... all designed and managed to be compliant with principles of the Framework for African Agricultural Productivity (FAAP) which the African Heads of State and Government endorsed last year in Banjul.”

“African governments and regional bodies and Africa’s development partners are listening carefully to you, who comprise the Forum for Agricultural Research in Africa, to hear how far you have bought into these continental initiatives and the way that they are implemented in line with the principles of subsidiarity, primarily at national, but also at sub-regional levels. Your endorsement and contribution to improving them will be a major factor in their success and indeed in the success of the concept of FARA.”

“African governments and our development partners have pledged to substantially increase investment in African agricultural development The question is will this Assembly confirm viable options for taking up that investment to promote the productivity and competitiveness of African agriculture in a global economy.”

“It is in the interests of all stakeholders in African agricultural research and development, especially the majority of the rural and urban poor that you succeed in your deliberations.”

Principal resolutions of the 4th FARA General Assembly



1. Identifying and exploiting Africa's competitive advantages in agricultural production, agribusiness and related industries

Recommendation: FARA stakeholders should promote intra-African trade in food staples and international trade in high-value products. This should be underpinned by creating commercial environments that will engage the energy of the private sector, jointly with the public sector, to produce tools to help smallholders invest in change and manage risk.

2. Developing Africa's capacity for agricultural commerce and innovation

Recommendation: FARA stakeholders must develop endogenous innovation capacity, including the ability to identify and adapt foreign innovations, and to take full advantage of Africa's traditions of extended families and relationships. Renewed confidence and greater reliance on home-grown solutions and products must be underpinned by policy and financing environments that support small and medium enterprises.

3. Learning from past success of research in influencing agricultural policies

Recommendation: FARA stakeholders should aim to maximise the impact of agricultural research and development by providing policy makers with evidence-based, pragmatic options that have, preferably, been developed jointly by researchers and policy makers and in alliances with policy influencers, including the media.

4. The status of the five requirements for turning Africa's agriculture around

Recommendation: FARA stakeholders should endorse FARA's integrated set of networking support functions as a sound basis for continent-wide contributions to the work of the Sub-Regional Organisations (SROs), provided that they are implemented in accordance with the subsidiarity principle and organised to achieve impact.

5. Positioning agricultural research institutions to be fully effective

Recommendation: FARA stakeholders should advocate and facilitate the strengthening of research management, as well as the strengthening of agricultural sciences and of the capacity of actors across whole value chains, so that they can participate effectively in innovation systems approaches. These efforts should be supported by sustainable funding mechanisms, such as endowments.

6. Learning lessons from responding to risks and disasters

Recommendation: FARA stakeholders must develop adequate veterinary capacity, initiate livestock disease surveillance, epidemiological and response systems, and interlink them with their human disease counterparts to enable nations to cope with disease outbreaks, especially of zoonotic diseases, and to comply with international health and safety standards. Improved community-based responses are also required to ameliorate the risks of desertification and land degradation.

7. Africa's capacity to build human and institutional capacity for the agricultural industry

Recommendation: FARA stakeholders should address the broad and systemic issues in capacity strengthening, so as to focus on causes rather than symptoms, and to ensure that capacity strengthening initiatives reflect established demands, and redress gender and age imbalances and inequities. In so doing, they should take advantage of Information and Communication Technologies (ICTs), existing capacity strengthening and technology-mediated learning, and information and learning networks. These must be underpinned with African investment and the creation of conducive environments to encourage trainers, researchers, change agents and the private sector to work together effectively within strategies for harnessing African capacities.

8. Mobilising civil society for agricultural research for development

Recommendation: FARA stakeholders should recognise that Sub-Saharan and North African civil society organisations are very diverse and that attempting to impose values is not helpful. Civil society organisations must be supported and strengthened to help them to fulfil their missions in the context of shared rather than imposed values. This must be based on mutual objectives and respect for each other's perspectives and motives rather than on artificial organisational conveniences.

9. Peri-urban agriculture

Recommendation: FARA stakeholders should regard research on peri-urban agriculture as a mainstream activity. It is one that requires new approaches to research and the dissemination of outcomes, including exploitation of the diversity of African horticultural crops, the demands of local markets and the African diaspora. The research should also identify the risks associated with horticultural production and the potential for development inherent in the diversity of livestock, fish, trees, insects and microbes.

10. Capturing indigenous knowledge for development while respecting intellectual property rights, ethical and moral integrity and biosafety

Recommendation: FARA stakeholders should mainstream indigenous science into agricultural research and development, and make the necessary personal and institutional adjustments required to enable communication and joint learning between practitioners of the different sciences. The intellectual property of indigenous communities should be afforded enforceable legal protection against external misappropriation and exploitation, and the communities should be assured of their right to use and share biodiversity amongst their communities and in their domains.



Ministerial Communiqué

The 4th FARA General Assembly, with its large, diverse and vigorous participation, provided a fertile source of information and knowledge on the opportunities and problems currently facing African agriculture. Advantage was taken of this fount of knowledge in a Ministerial Roundtable meeting which considered the most pressing issues affecting African agriculture in June 2007.

The roundtable was chaired by the Honourable Lulu Xingwana, Minister of Agriculture and Land Affairs with the participation of Honourable Ernest A. Debrah, Minister of Food and Agriculture Ghana; Honourable John Karim-Sesay, Deputy Minister of Agriculture and Food Security, Sierra Leone; Honourable Abu Baker Al-Mansour, Secretary General People's Committee of the Authority of Agriculture, Animal Health and Marine Resources; Libya; Honourable Paul Smit, Deputy Minister of Agriculture, Water and Forestry, Namibia; Honourable Olifant Mfa, Assistant Minister of Agriculture, Botswana; Honourable Kibirige-Seibunya Israel, Minister of State for Agriculture, Animal Industry and Fisheries (Agriculture), Uganda; Honourable Farba Senghor, Minister of Agriculture, Hydraulic and Food Security, Senegal; Honourable Rugare Mumbo, Minister of Agriculture of Zimbabwe; Dr Samba Ly, Director General, National Agricultural Research Institute, Niger, representing the Minister of Agricultural Development of Niger; and Dr Alberto Sili Mateus, Deputy Director, Agronomic Research Institute, Angola, representing the Honourable Afonso Pedro Canga, Minister of Agriculture of Angola.

Following their deliberations, the Ministers issued the following communiqué, which was read during the Business Meeting:

Communiqué issued by African Ministers of Agriculture meeting in Johannesburg on Tuesday 12th June 2007

We, the Ministers of Agriculture assembled at the Fourth General Assembly of the Forum for Agricultural Research in Africa (FARA) which was held in Sandton Convention Centre, Johannesburg in the Republic of South Africa from 10th to 16th June 2007:

[Are] aware that there have been significant improvements in African agricultural production and productivity and that good progress has been made in complying with the commitments made at the Ministerial Roundtable held on the occasion of the 3rd FARA General Assembly, Uganda on 7th June 2005 which included to:

- Support FARA's stakeholders in the implementation of a comprehensive programme of action, as agreed at its Third General Assembly.
- Effect the institutional change and capacity building required for implementing high-impact research, utilising all appropriate advances in science and research methods and paradigms.
- Mobilise the financial resources required to reinvigorate national agricultural research institutes including African agricultural universities and colleges, sub-regional and regional organisations and enable the strategic support of their regional and international partners.
- Advance the causes of the sub-regional and regional organisations so that they can achieve the benefits of cross-border collaboration and sharing of tasks.
- Support agricultural research for development as the best means of achieving the Millennium Development Goals.
- Mandate FARA to advocate for the programmes agreed by its stakeholders at their Third General Assembly, to promote partnerships for their implementation and to develop the intellectual and physical framework to open information and learning opportunities so that all its stakeholders can contribute to their fullest extent.

[Are] cognisant that despite this progress Africa is still behind schedule for achieving the Millennium Development Goals, especially MDG 1 (eradicating extreme poverty and hunger) and MDG 7 (ensuring environmental sustainability) by 2015.

[Are] aware that the context of African agricultural research for development has been substantially improved by the approval of FAAP, by African Heads of State and Government at their meeting in Banjul in 2006. This establishes guidelines and principles for the implementation of Pillar IV of the Comprehensive Africa Agriculture Development Programme (CAADP), which encompasses agricultural research and technology dissemination and adoption.

Endorse FAAP's call for:

- reforms to agricultural institutions and services,
- increases in the scale of agricultural productivity investments, and
- aligned and coordinated financial support.

Advocate for compliance with the FAAP principles of:

1. Empowerment of end-users to ensure their meaningful participation in setting priorities and work programmes for research, extension, and training to ensure their relevance.
2. Planned subsidiarity to give responsibility and control over resources for agricultural research, extension, and training activities at the lowest appropriate level of aggregation (local, national and regional).
3. Pluralism in the delivery of agricultural research, extension, and training services so that the diverse skills and strengths of a broad range of service providers (e.g., universities, NGOs, public and the private sectors) can contribute to publicly supported agricultural productivity operations.
4. Evidence-based approaches with emphasis on data analysis, including economic factors and market orientation in policy development, priority setting and strategic planning for agricultural research, extension and training.

5. Integration of agricultural research with extension services, the private sector, training, capacity building, and education programmes to respond in a holistic manner to the needs and opportunities for innovation in the sector.
6. Explicit incorporation of sustainability criteria in the evaluation of public investments in agricultural productivity and innovation programmes (fiscal, economic, social and environmental).
7. Systematic utilisation of improved management information systems, particularly for planning, financial management, reporting, and monitoring and evaluation.
8. Introduction of cost sharing with end users, according to their capacity to pay, to increase their stake in the efficiency of services provision and to improve financial sustainability.
9. Integration of gender considerations at all levels, including farmers and farmer organisations, the private sector, public institutions, researchers and extension staff.

[Are] aware that Africa must position itself to respond to the impacts of:

- Climate change, which will have the most serious impact on the African continent and in particular on the rural poor, [with such impacts] including increasingly uncertain and more extreme weather events, the loss of water resources, and the spread of human, livestock and crop diseases.
- Physical and institutional constraints on intra-African trade in agricultural raw materials and processed products.
- The need for a well structured policy and approach to the production of bio-fuels that is consistent with assuring the food and nutrition security in our nations.
- The diversion of food grains to the production of bio-fuels in major non-African grain producers which is driving up world grain prices and reducing stocks from which Africa has traditionally sourced food imports and food aid.
- The rising prices of oil and other commodities that will raise the cost of manufacturing agricultural inputs, agro-processing and farm power.
- The failure to conclude the Doha round of negotiation of the World Trade Organisation and the persistence of subsidies and import tariffs that are impeding Africa's opportunities for adding value to agricultural raw materials.
- The threat of Highly Pathogenic Avian Influenza (HPAI), Rift Valley Fever and other zoonotic diseases.

Compliment, for the increasing unity of purpose and action that they are displaying, the Commission of the African Union Department of Rural Economy and Agriculture (AU-DREA) and its agencies—such as the Inter African Bureau for Animal Resource (AU-IBAR), NEPAD, the Forum for Agricultural Research in Africa (FARA), the Association for Strengthening Agricultural Research in East and Central Africa (ASARECA), the Conseil Ouest et Centre Africain pour la Recherche et le Développement Agricoles/The West and Central African Council for Agricultural Research and Development (CORAF/WECARD), and the North African members of Association of Agricultural Research Institutes in the Near East and North Africa (AARINENA), Southern African Development Community Food Agriculture and Natural Resources Directorate (SADC-FANR).

Reconfirm the conviction:

- that vigorous agricultural research is essential to producing the scientific, technical, economic, policy and socio-cultural changes that are required for raising rural incomes, improving food security, reducing natural resource degradation and loss of biodiversity, and increasing Africa's contribution to world trade;
- that strong national agricultural research systems are the foundations for national agricultural development and cohesive sub-regional and regional programmes;
- that the extent of the demands on agricultural research are such that all research providers should be engaged and encouraged to contribute to maximising the impact of the total investment from all sources in agricultural research from their collaborative advantages based on principles of subsidiarity and participatory decision making.

Reaffirm our commitment to equitable and sustainable agricultural development and pledge ourselves to fostering an enabling environment for agricultural research to be carried out and to achiev[ing] impact through advancing agricultural development in improving livelihoods of the majority of Africans who are smallholders and pastoralists.

Congratulate FARA's Secretariat staff, under the outstanding leadership of Dr Monty Jones, for the remarkable contribution that it has made to advance[ing] the implementation of CAADP Pillar IV since 2005, and urge them to maintain the same spirit and energy in addressing the challenges they will face in the years leading to the 5th General Assembly.

Plan of Action

We commit ourselves to:

- promoting the effectiveness of NARS and our sub-regional and regional agricultural research organisations;
- ensuring that our agricultural development, research and teaching and training institutions comply with the FAAP principles;
- fulfilling our governments' commitment to invest 10% of our national budgets in agriculture;
- underpin[ing] this investment with the financial resources required to reinvigorate national agricultural research institutes, including, agricultural universities and colleges and technical institutes;
- ensuring the out-scaling and up-scaling of agricultural research products to support the sub-regional and regional organisations that belong to our national agricultural research systems; and,
- reinvigorating tertiary agricultural education to produce technicians, graduates and postgraduates who are equipped with both international standards of disciplinary expertise and with the systems skills necessary for successful participation in advanced agricultural innovation systems capable of addressing the opportunities and problems outlined above.

We hereby mandate FARA to advocate for the programmes agreed by its stakeholders at their Fourth General Assembly, to promote networking amongst its African and non-African stakeholders in accordance with its new Strategic Plan as shall be amended and agreed by the decision of FARA's General Assembly.

1. Identifying and exploiting Africa's competitive advantages in agricultural production, agribusiness and related industries

Recommendation: FARA stakeholders should promote intra-African trade in food staples and international trade in high-value products. This should be underpinned by creating commercial environments that will engage the energy of the private sector, jointly with the public sector, to produce tools to help smallholders invest in change and manage risk.

Key issues

- Africa has a competitive advantage in its own consumer markets.
- Aid to Africa has focused on food rather than on know-how concerning value chains and financing.
- African farmers need risk management tools.
- Engaging the private sector and financial institutions will be crucial.

Introduction

Dr Joyce Cacho, Director Agribusiness Initiative Program, Corporate Council on Africa

By working together in a coordinated manner, the public and private sectors can catalyse economic growth in Africa. Now is the time for Africa's science and technology institutions to reposition themselves—guided by consumer demand—to help farmers manage risk and partner with the private sector. The private sector is a source of unique skills in changing behaviour which can be useful in increasing technology adoption. These include skills in managing supply chains that are useful in identifying aspects of the value chain for science and technology to address, and skills in right-sizing that are useful in making products more accessible to wider segments of markets.

Context for competitiveness, markets and agriculture Development investment by governments and donors has virtually excluded commercial sustainability and has focused on technical and, more recently, environmental sustainability. This trend originated in a world where financial capital and information markets were effectively closed (before you could get stock prices from markets around the world 24 hours a day) and where political frameworks were such that many aspects of economic growth could be controlled at a national level.

In today's world of increasingly globalised commodity markets there have been dramatic changes: financial markets opened when the world went off the gold standard in the early 1970s; the internet is now a ubiquitous source of information and can be accessed just about anywhere via mobile telephones; and developed countries have become mature markets and developing countries emerging markets. Markets are now the instrument of population-wide economic growth.

The food-value-chain—driven by the consumer—connects agriculture, marketing and trade. However, the crowding out of the formal private sector by governments and donors has left little choice for producers or consumers to seek ways to compete in national, regional, or international markets.

African farmers and globalised markets Subsidies in many G8 countries historically integrated agriculture, commodity, commerce and international trade policies to ensure domestic food security. This is very different from the almost singular emphasis on agricultural commodity production for economic growth and development in Africa.

The best chance for African farmers to compete in a commoditised global economy is the CAADP value chain approach. This integrated, strategic approach to agriculture-based economic growth in Africa makes food needs in Africa and intra-Africa trade priorities.

African farmers are, in fact, risk managers, players in the private sector in a production sense and, at the same time, consumers like the rest of the population. For African farmers to compete in increasingly globalised markets, investments in science, technology, infrastructure and institutions must be driven by the question: How does this investment improve, or expand, the set of risk management tools for the African farmer?

Markets for African agricultural-based products in the US and other mature market economies US consumer markets for Africa's agriculture-based products are in niche areas, such as organic foods and uniquely African wines, where consumers are willing to pay higher prices. But US niche markets, though important, are only one component of a portfolio of markets for Africa's agriculture-based products.

Local and regional markets in Africa, where agri-based production is close to consumers, offer opportunities for higher volumes, lower margins and less vulnerability to dramatic shifts in consumer tastes and preferences.

Africa has a significant competitive advantage in its own consumer markets that a coordinated set of policies and a stable investment environment can realise. However, alignment of all segments of the value chain—transport, marketing, finance, international trade, science and technology—is an overarching requirement.

Historically, the US has helped Africa fill grain gaps at times of acute human need through disaster relief programmes. However, aid in the form of US agricultural value chain and financial know-how could transform production of agricultural commodities in Africa.

Improving the competitiveness of agriculture in Africa In December 2006, heads of state meeting in Abuja, Nigeria, agreed that expanding markets to meet demands in staple foods in Africa and encouraging intra-African trade are key objectives for re-energising agriculture as the hub for economic growth. They agreed to promote nine commodities at the Africa-wide/continental level and three at the sub-regional level.

The value chain focuses on transforming agricultural raw materials The value chain strategy provides opportunities to offer farmers, and other stakeholders, knowledge and tools to pool risk, to improve the quality of their products, increase the volume and reduce the volatility of their production.

Integrating the activities of stakeholders in agriculture and agribusiness strengthens African economies by shifting away from production and focusing on transforming agricultural raw materials. The growing importance of Africa's own markets is a very new phenomenon. Countries face challenges similar to those faced during the formation of the European Economic Union and by the US while it was still a geographically expanding nation.

Today we are at a crossroads in Africa's economic growth. Africa's emerging markets are gearing-up to invest in food industries. Agribusiness possibilities in high margin value chains,

such as beauty and body care, are being explored. African entrepreneurs familiar with local and regional consumer markets are actively pursuing opportunities, and financial capital is increasingly accessible through the public stock offerings associated with privatisation.

By repositioning themselves to be guided by consumer demand and partnering with the private sector, Africa's science and technology institutions can increase the rate of adoption of technology and get wider access to farmers.

Pan African Private Sector Consortium side event *Sponsor: FARA*

Participants in this side event identified the major areas of concern as being agribusiness financing, product development and adding value, risks in the value chain, supply chain management, partnerships/ strategic alliances, agriculture policy and regulations, market structures and intelligence.

This forum endorsed the establishment of a pan-African private sector body to work very closely with FARA and the Sub-Regional Organisations (SROs) on the major areas of concern.

Participants set out three deliverables as indicators for progress. Firstly, partnership with the public sector in business financing and investment, secondly, modalities for stimulating investment by minimising risks and, thirdly, the restructuring of markets to target the domestic market while eyeing exports

Summary of plenary discussions

Madam Vangile Titi, in responding, raised the issue of the enabling conditions that need to be in place for Africa to identify and exploit its competitive advantages in agricultural production, agribusiness and related industries in the globalised economy. South Africa now knows that a good enabling policy is necessary, but not sufficient. Much more needs to be done. Governments have to invest in transport, energy, telecommunications, irrigation, research and development, marketing infrastructure and human resources to unlock the potential for primary production and value adding. Governments also have to provide capital, in the form of grants and credit facilities, to galvanise the private sector, and help farmers to understand food safety and quality standards for domestic and international markets. South Africa's recent experience tells us that government can leverage financial, technical and production inputs from the agribusiness sector, while also utilising their networks or infrastructure to help emerging farmers gain entry to markets.

Lucy Muchoki, in responding, emphasised that Africa has the biggest role to play in developing African agriculture. The challenges are to attract investment in agro-processing, manage risk, develop market awareness, streamline value chains and brand agriculture as a viable investment. She advocated a strong private sector platform to address these challenges.

A comment on the CAADP's focus on nine staple foods, stressed that fruits and vegetables, as well as finding niche export markets, are worth more in local markets than staple crops and are critical in nutrition security. The Consultative Group on International Agricultural

Research is launching a Challenge Programme on fruits and vegetables and this will add to the portfolio of market opportunities.

Competition, not only from Europe and America, but also from China and Brazil, means that businesses import goods, but do little manufacturing. Common strategies to engage business and financial institutions, and coordinate policy frameworks and trade environments, would enable the private sector to kick in earlier. The creation of a private sector platform was seen as critical for getting inputs from this sector. Commercial public-private agreements, negotiated through conduits for linking the private and public sector, such as the African Agricultural Technology Foundation (AATF), would open up opportunities.

There was a consensus that attention should be on local and regional markets, and that links between the Association of Strengthening Agricultural Research in Eastern and Central Africa (ASARECA) and the Conseil Ouest et Centre Africain pour la Recherche et le Développement Agricoles (CORAF) are important in promoting trade.

2. Developing Africa's capacity for agricultural commerce and innovation

Recommendation FARA stakeholders must develop endogenous innovation capacity, including the ability to identify and adapt foreign innovations, and to take full advantage of Africa's traditions of extended families and relationships. Renewed confidence and greater reliance on home-grown solutions and products must be underpinned by policy and financing environments that support small and medium enterprises.

Key issues

- The biggest challenge is not lack of technologies but mindset—Africans need to believe in themselves.
- The African traditions of core and extended families, and local exchange of goods and services, are good models for community businesses.
- African natural products are valued at billions of dollars, but producers share very little of the financial benefits.
- The private sector and governments play important roles in production, marketing and creating enabling environments for enterprises to flourish.
- Greater attention needs to be paid to public awareness of intellectual property rights, management of intellectual property, and compliance with regulations.

Introduction

Mandivamba Rukuni, Kellogg Foundation

The biggest challenge in developing Africa's capacity for innovation in commerce is not lack of technologies or infrastructure, but the mindset of Africans. This prevents them from drawing on their heritage of strong kinship, valuing what they already have in terms of relationships, human resources and assets, intelligently borrowing good ideas from the developed world and exuding confidence.

Rural Africans are poor because they produce things they don't rely on. They rely on things they don't produce. And, they erode their asset base. They don't value or leverage their own knowledge. And, their spirit resides in a cultural squatter camp.

For African rural communities to create wealth they need to add value to what they have or produce and make their assets work for them. This means, for example, making more of trees, herbs and animals, and getting together to improve roads, wells, grain silos and housing.

It also means circulating locally produced produce and providing local services. Kinship is potentially a strong basis for businesses at the community level—based on the core and extended family, and exchanging goods and services locally. Since commerce and innovation are built on relationships, Africans are well placed to innovate because of the importance of relationships in their culture. The success of emigrant Indians, Chinese and Jews can be partly attributed to the extended family business model.

Knowledge can be applied to business in three ways. First, by drawing on existing knowledge to solve problems. Second by borrowing intelligently—copying and contextualising ideas. And, third, by adapting and reconstructing as situations change.

Surveys, the radio and the internet are not the only sources of key market information. What's important is to know your clients and their relationships, and to be able to tap into high-value markets. Products from Africa change hands on average nine times and, on average, two of these are in Africa.

Key skills that Africa needs to build are skills in spotting opportunities (hunting), making and structuring deals, managing relationships, negotiating at regional and global levels, managing supply chains, adding value and assuring quality.

African farmers are unlikely to succeed in acquiring or penetrating new and lucrative markets by themselves. What is needed is for business interests to organise at the family, country, continental and global scale. Here, the African diaspora can play an important role.

Above all, ninety per cent of entrepreneurial success comes from confidence. Africans need to believe in themselves.

NEPAD's Pan African Cassava Initiative (NPACI) side event

Sponsors: Kellogg Foundation and International Institute of Tropical Agriculture

The NEPAD Pan African Cassava Initiative was set up to tap the enormous potential of cassava in Africa for food security and income generation. The three interrelated components—market research and development, technology generation for development, and competitive and sustainable production—focus on transforming cassava production.

The NEPAD Pan African Cassava Initiative has negotiated an agreement with the African Commodity Exchange (ACE) to provide market information (offers to sell or buy) to cassava stakeholders in eastern and southern Africa.

The side event identified priority issues that should be integrated in NPACI's research and development agenda. These are to increase the resilience of cassava to climate change, support the use of biotechnology in cassava research, promote producer collectives and cassava as a raw material in feed production and industry, and strengthen and harmonise cassava seed systems.

Participants recognised the important roles played by the private sector and the government in sustaining production and marketing, and in creating the enabling environment needed for cassava-based enterprises to flourish.

Naturally African Initiative side event

Sponsors: World Agroforestry Centre and FARA

This side event officially launched the Naturally African Platform, highlighting its mandate and aspirations.

The value of African natural products—gums, resins, oils, waxes, food, medicine and beauty products—amounts to billions of dollars, but the financial benefit accruing to African producers and processors is abysmal. Africans get low returns because their

sections of value chains are fragmented, because of the focus on international markets, and because they are not aware of their intellectual property rights.

The side event therefore recommended the launch of a platform that will serve as a forum and mechanism for 1) identifying challenges and opportunities in the tree and natural product sector; 2) establishing programs and partnerships for competitive value adding in natural products; 3) stimulating domestic and regional market for natural products and ensuring that Africans obtain a fair share of returns, 4) facilitating the scaling out of successes, including commissioning policy research and conducting policy advocacy; and 5) addressing the intellectual property rights and issues concerning tenure systems for natural products.

Innovative Pathways to Commercialising Agricultural Research Results in Africa side event

Sponsor: African Agricultural Technology Foundation (AATF)

This side event explored the management of intellectual property, regulatory compliance, public acceptance and technology dissemination in agricultural innovation platforms.

Successful adoption of technologies to increase agricultural productivity as an engine for African economic development requires the private sector to partner with the public sector. Intellectual property management, regulatory compliance and public awareness all have a bearing on whether commercialisation succeeds or fails. Agricultural innovation models bring together public and private sector institutions, NGOs, extension services and farmers' associations to deal with these issues.

Participants made two recommendations. Firstly, that excellence in the understanding and management of intellectual property, regulatory compliance and public acceptance needs to be incorporated into African agricultural research and interventions for increasing African agricultural productivity. Secondly, that FARA should endorse the African Agricultural Technology Foundation to spearhead the establishment of alliances that will ensure a better understanding and handling of intellectual property issues by African institutions involved in agricultural research and development.

Summary of plenary discussions

In responding, Marcel Nwalozie dwelt on the importance of communications—notably information and communication technology (mobile telephony, internet) and radio—in establishing and sustaining relationships and interactions in innovation and commerce. He pointed out the need to stimulate both internal and external investment in communication infrastructure, and for policies to encourage widespread use. He also stressed the need to address fears associated with use of new technologies.

The emphasis on stimulating and promoting entrepreneurship at the local level that was stressed in the introduction resonated with many participants. However, it was pointed out that the lack of attention to prospects for the future is typical. We need to make projections when we develop strategies for the future and there are frameworks for doing this.

The cultural and spiritual dimensions of poverty have largely been ignored in initiatives aimed at changing behaviour and mindsets. The scientific method does not deal with these dimensions adequately.

Participants reiterated that Africans need to get organised around production, value-adding and marketing in order to improve trade amongst themselves and with external markets. The latter will require concerted efforts to change policies to address barriers to fair trade.

Recommendations from the plenary were that:

- 1) It is essential that we make projections into the future in order to develop strategies for pointing us to where we wish to be in the long term.
- 2) Future side events (such as those concerning capacity development and the private sector) should be held jointly and scheduled to allow participation in both.
- 3) Agribusiness courses should be established and integrated in the curricula of business schools.
- 4) Enhancing negotiating skills in Africa should be a priority.
- 5) Intelligent copying is an important strategy for advancement and needs to be supported with the necessary policies, skills development and infrastructure.
- 6) Exchanges on enhancing entrepreneurship at the local level between Latin America and Africa should be promoted.
- 7) A mechanism for tracking and reporting the implementation of recommendations made at the General Assembly should be set up.

3. Learning from past success of research in influencing agricultural policies

Recommendation FARA stakeholders should aim to maximise the impact of agricultural research and development by providing policy makers with evidence-based, pragmatic options that have, preferably, been developed jointly by researchers and policy makers and in alliances with policy influencers, including the media.

Key issues

- The policy making process is not linear but very complex.
- Research is important in helping policy makers to make changes.
- Policy dialogue involves creating forums where stakeholders come together to discuss recommendations of policy research.
- Researchers should promote broad policy changes targeting farmers as well as commodity-focused policy changes.
- Research should form strategic alliances with civil society organisations to influence changes in policy.
- National and regional level policy environments need to encourage the private sector to make investments that foster trade.
- Research priorities need to be aligned to reduce duplication.

Introduction

Dr Lindiwe Majele Sibanda, Chief Executive Officer, Food, Agriculture and Natural Resources Policy Analysis Network (FANRPAN)

Research – Policy link, the reality!

The development of policy takes place in a broad cluster of processes that come together to bring about policy change.

‘The whole life of policy is a chaos of purposes and accidents. It is not at all a matter of the rational implementation of the so-called decisions through selected strategies.’⁶

The role of research in policy making Research is a learning process that is integral to the development process. Civil society plays a pivotal role as a connector. An innovation systems approach promotes interactions between research, the use of knowledge and the development of policy.

Lessons from policy interventions in maize marketing in Zambia When research results on policy interventions in maize marketing were presented to policy makers there was an immediate reduction in inter-district levies, an immediate waiver on tariffs for maize and a demand for follow-up studies. This experience showed the value of working in a multi-disciplinary regional research team sharing a common network. Also, that there was a need

6. Clay, E.J. & Schaffer, B.B. 1984. *Room for Manoeuvre; An Exploration of Public Policy in Agricultural and Rural Development*, Heinemann Educational Books, London

to have clear agreement on the nature of the problem and on the kind of evidence that would best meet political pressures right from the beginning of the study. In this case the research results were applied immediately because trust was established and credible evidence was presented.

Lessons from policy interventions in Kenya Animal Health Service Delivery In this policy process, multiple actors inside and outside formal policy organisations, key champions, bureaucrats and gate keepers played key roles in determining outcomes. Being part of the process meant taking advantage of strategic opportunities, engaging in multiple dialogues and networks, and continuously re-crafting documents. Informal policies moved faster than policy on paper. It took time and persistence.

Lessons from policy interventions in the Southern African Development Community (SADC) regional seed harmonisation Harmonisation of seed rules and regulations in the SADC region was painfully slow, taking 13 years. Poor technical capacity and limited funding, the limited engagement of civil society organisations, fragmented and uncoordinated donor efforts and lack of an authoritative regional seed institution caused delays. But, many meetings at national and regional level afforded opportunities to: share experiences, appreciate the problems, get to know each other and seek solutions Support from an international seed research organisation accelerated the policy process.

What researchers need to do To influence policy, researchers need to understand the political context, have credible evidence and engage with the policy makers, from the outset and throughout the research process. Most of all, they need to be persistent—it takes time.

SADC Dialogue side event

Sponsor: Department of Agriculture, Republic of South Africa

This one-day symposium addressed all ten sub-themes of the General Assembly. Young scientists and post-graduate students, as well as agricultural experts, were invited to contribute to the discussion through papers selected in a competitive process. Key issues were identified that need to be addressed by Sub-Regional Organisations (SROs), governments and NARS. A book was published containing the winning papers.

Southern African Development Community-Multi-Country Agricultural Productivity Programme (SADC-MAPP) side event

Sponsor: SADC-MAPP

This side event briefed the region's development partners on progress in preparing the SADC-MAPP and sought their comments and suggestions to fine-tune the programme which will start in earnest in 2008.

Many participants wanted to know what institutional arrangements would be put in place and the nature of the relationship between the SRO, the SADC Secretariat and national institutions. Consultants have been engaged to look into these issues.

Discussions also emphasised the role of stakeholders in preparing and implementing the programme and the fact that, within each of its six programme components, SADC-MAPP will focus on trans-boundary regional priorities.

New Partnership for Africa's Development-Comprehensive Africa Agriculture Development Programme (NEPAD-CAADP) Partnership Platform side event

Sponsor: NEPAD

This side meeting was arranged as part of the on-going dialogue among key players in supporting country and regional level implementation of the agricultural agenda within the CAADP framework. It has been acknowledged that CAADP is needed for the transformation of African agriculture with support from the international and national levels. The challenge is how these commitments are delivered on the ground.

The meeting made clear recommendations on the need for forging linkages between the pillars of CAADP. Communication and reporting were highlighted as critical for success. FARA should advise NEPAD on a strategy for requesting higher budget allocations from national governments and FARA itself has an important role to play in raising and tracking budgets for research, technology development and adoption from national governments.

The meeting noted and agreed that the CAADP Partnership Platform is important for mutual review and accountability of the CAADP process, and implementation of the agenda agreed between development and African partners.

Summary of plenary discussions

In responding, Carlos Sere, commented that lessons could be learned from the recent dramatic changes in China where key policy approaches have been step-by-step and pragmatic. Research needs to respond to the broad question of whether the proposed changes are realistic. There are two dimensions to policy changes (1) the immediate need by specific groups for policy change and (2) mega-changes where the role of research is to set the agenda and provide new evidence. To quote David Cleaver, 'there are two types of research, i.e. research for knowledge and research for action'. Not all research leads to immediate action. Short and long-term benefits are all part of the game.

Carlos Sere agreed that evidence is empirical, but that it is just a small factor in a complex environment. Policy decisions about markets, for example, are difficult for research to influence. One way is for policy research to give practical examples.

Researchers undervalue the tactical realities of policy making. Policy makers are concerned with who will gain from policy changes because they are interested in who is going to win or lose the next election, whereas economists are interested in win-win solutions.

Policy changes are complex to put into practice because policy makers may have different understandings of the policy itself and how best to implement changes.

Researchers should not underestimate the role of communication in changing policies. They can learn from NGOs. Researchers usually try to influence policy directly and get direct access to policy makers. Rarely do they talk to the media so that their ideas become an issue for policy makers.

Carlos Sere also endorsed the learning paradigm. Research is a systematic way of learning but, in policy, change is a constant. Researchers therefore need to be flexible and open rather

than linear in their approach and realise that they are just one of many areas providing input in a very complex environment.

The other respondent, Isaac Minde, added that we can learn from the success stories of the Association of Strengthening Agricultural Research in Eastern and Central Africa (ASARECA) and the Economic Community of West African States (ECOWAS) in policy issues. He said researchers should talk about 'how' rather than 'what' in addressing policy issues.

4. The status of the five requirements for turning Africa's agriculture around

Recommendation FARA stakeholders should endorse FARA's integrated set of networking support functions as a sound basis for continent-wide contributions to the work of the Sub-Regional Organisations (SROs), provided that they are implemented in accordance with the subsidiarity principle and organised to achieve impact.

Key issues

- Cooperation and understanding between FARA and Sub-Regional Organisations is increasing.
- FARA's support for networking catalyses and adds value to the Sub-Regional Organisations' shift from commodity-based to programmatic approaches.
- There is concern about the implementation of FARA programmes at the sub-regional level
- The principle of subsidiarity should be observed.
- There is a need for consensus building and to reduce transaction costs.
- Northern Africa are being encouraged to establish a SRO to facilitate interaction and learning with Sub-Saharan countries

Introduction

*Dr Monty Jones, First Executive Secretary,
Forum for Agricultural Research in Africa (FARA)*

Agricultural productivity has generally been stagnant in Africa. Recently however, a 1.3% growth suggests a positive trend in attaining the 4% total factor agricultural productivity that would be needed to reach the 6% CAADP growth target by 2015. Farmers need to access knowledge and technology, markets and services to enhance productivity and economic growth in Africa.

FARA and its stakeholders identified five requirements that would be needed to significantly turn African agriculture around.

The Framework for African Agricultural Productivity (FAAP) sets out a structure for reform and investment in agricultural research, and harmonisation of actions and actors in agricultural research and development in Africa. FAAP calls for reform of the research, extension, training and education systems; increased investment in agricultural research; and alignment of and coordinated support for research and agricultural development. FAAP was adopted by African Heads and is being applied by Regional Economic Communities (RECs) and SROs in developing multi-country agricultural productivity programmes (APPs).

Innovation systems approaches as exemplified by integrated agricultural research for development (IAR4D) is the approach that FARA intends will become the standard for agricultural research and development in Africa. The Sub-Saharan Africa Challenge Programme (SSA CP) will demonstrate the impact and validity of IAR4D, and identify and

document best practices to promote IAR4D throughout the region. It is being developed and validated at three pilot learning sites (PLSs), one each in West Africa, East Africa and Southern Africa. This involves innovations in processes, methodologies, institutional arrangements and stakeholder interactions, as well as technologies, which will be evaluated against benchmark indicators.

Capacity building The report of the assessment of NARS capacities confirmed that there is a serious shortfall in the human and institutional capacity needed to carry out research, effectively manage human and financial resources and access global knowledge and learning opportunities. The programme for Strengthening Capacities for Agricultural Research for Development for Africa (SCARDA) will strengthen NARS competencies and capacity in research management, develop NARS professional capacities and improve staff retention. In the six-month inception phase, NARS' needs for strengthening capacity, both in terms of academic and professional skills, will be assessed and a full-cost programme developed. To ensure that the strengthening of NARS is sustained and the critical need for well qualified graduates properly prepared for careers in multi-stakeholder innovation systems is met, FARA is also advancing a programme for Building Africa's Scientific and Institutional Capacity (BASIC). This programme will focus on strengthening capacity for tertiary level teaching and training. It will be led by African universities in collaboration with partner universities from Europe, the USA and elsewhere, and the African agricultural research community.

Enhancing farmers' access to technologies Implementation of the programme for Dissemination of New Agricultural Technologies in Africa (DONATA), begins in 2007. DONATA will analyse commodity value chains and identify effective tools for disseminating new agricultural technologies to potential adopters. The SROs and NARS will select priority crops and target countries. Training of women scientists and development agents will be strongly encouraged and supported.

Improving access to information and learning tools for all categories of stakeholders. African stakeholders' access to agricultural knowledge and technologies remains poor. The Regional Agricultural Information and Learning Systems (RAILS) platform will facilitate access to and use of global knowledge and learning. Three sub-regional web platforms have been launched and over 1,600 stakeholders are actively accessing, using and contributing to global knowledge through this platform.

Development of agricultural policies on emerging technologies The African Biotechnology and Biosafety Platform (ABBP) is facilitating and catalysing African stakeholder access to knowledge on biotechnology and biosafety, their harmonisation of evidence-based policies, and participation in international treaty negotiations.

Lessons learned Cooperation and understanding between FARA and SROs is increasing. Networking is important in harmonising policy and sustaining financing, in giving all stakeholders access to knowledge and technology, in making strategic decisions about policy, institutions and markets, and in platforms for agricultural innovations. FARA's support for networking adds value to the SROs' shift from commodity-based to programmatic approaches.

As regional programmes strengthen and capacity grows, FARA will increasingly devolve implementation and management of regional programmes to the SROs in line with the principle of subsidiarity. At all times, farmers as end-users will be at the centre of all objectives.

Fosterin partnerships side event

Sponsor: Sub-Saharan Africa Challenge Programme, FARA

The Fostering Partnerships side event discussed catalysing innovation in agriculture by replicating the IAR4D approach across Africa. Building consensus is time consuming, but will prove to be the foundation for success of the programme because innovation requires partnerships. The innovation systems approach creates and puts into use combinations of knowledge from different sources. This means tackling processes and methodologies in implementing agricultural research for development. Structured learning is the basis for innovation whereby complex challenges can be solved by taking simple iterative steps.

Overcoming Challenges in Scaling Out Agricultural Research Successes side event

Sponsors: Research Into Use (RIU), Promoting Local Innovation (PROLINNOVA), Dissemination of New Agricultural Technologies in Africa (DONATA) of FARA, Picoteam Ltd, WrenMedia Ltd, NEPAD

The report from this side event stressed the factors required for managing scaling up and scaling out research successes. The building blocks of the RIU, DONATA and PROLINNOVA approaches for scaling up agricultural successes include:

- Adaptable policies that support and foster innovation and dialogue between actors
- Credible extension and service support that considers the whole livelihood system, not just commodities
- Capacity to access knowledge and technology
- Active participation of stakeholders
- Technologies that can be adapted to local contexts
- Benefits that minimise the risks to end users and outweigh transaction costs
- Sustained and harmonised support
- Functional partnerships with clear roles driven by joint vision
- Monitoring, evaluation and continuous learning
- Access to functional markets
- Championship and ownership by farmers and their institutions and service providers
- Sustained capacity of actors to innovate

Summary of plenary discussions

Paco Sereme, in responding, raised a concern about the delayed implementation of the SSA CP following the successful inception phase—some people are demoralised and perceive that the SSA CP is led by outsiders.

The relationship between SCARDA and BASIC in capacity building is not clear. SCARDA, an outcome of assessment of the NARS and an initiative that actively involves SROs, is strong and participatory. There is a need to apply the principle of subsidiarity, FARA being concerned with coordination, the SRO with management of the programmes, and the NARS with implementing them.

Papa Abdoulaye Seck, in responding, said that renewing African agriculture will be based on factors such as competitiveness, diversification and sustainability. Only 30% of agricultural activity is on-farm whereas 70% of the economic activity associated with agriculture is off farm. The global economy is dynamic and competitive and, for African agriculture to be competitive, the right conditions must be in place. Research must be participatory, listen more to the producers, and respond to market needs.

Countries in Northern Africa are being encouraged to establish a SRO to facilitate interaction and learning with Sub-Saharan countries. Certain medium-income countries in North Africa are above the income thresholds and cannot benefit from funds from some donors.

Research managers appear to be good at resource mobilisation, but weak in team building and conflict resolution. As well as good planning, coordination and implementation of research there is a need for all to participate fully in an environment that encourages everyone to learn from each other. The Sub-Saharan Africa Challenge Programme is a framework for addressing these issues.

Clearly, there is concern about the implementation of FARA programmes at the sub-regional level and their exit strategies are not sufficiently upfront. The principle of subsidiarity should be observed. There is a need for consensus building and reducing transaction costs.

5. Positioning agricultural research institutions to be fully effective

Recommendation FARA stakeholders should advocate and facilitate the strengthening of research management, as well as the strengthening of agricultural sciences and the fortifying of the capacity of actors across whole value chains, so that they can participate effectively in innovation systems approaches. These efforts should be supported by sustainable funding mechanisms, such as endowments.

Key issues

- Strengthening research management means emphasising relationships among stakeholders, facilitating the flow of information and getting feedback to developers of technology.
- The innovation systems approach is appropriate for enabling change in the complex and highly diverse smallholder and pastoral production systems of Africa, but it needs to be better understood.
- Agricultural education needs to build directly on the knowledge of smallholder farmers and communities.
- FARA needs to explore new and innovative mechanisms for funding agricultural research.

Introduction

Professor Frans Swanpoel, University of the Free State, Bloemfontein, South Africa

In the last few years, new visions, priorities and directions for African agriculture have emerged, such as the CAADP of the New Partnership for Africa's Development (NEPAD)⁶. African governments have made serious commitments through NEPAD and CAADP to support agricultural research for development.

A study by FARA⁷ on agricultural research in Africa recognises that effective NARS are the principal providers of agricultural research for Africa's development. As such, NARS should depart from the pipeline approach to technology development and constitute a 'theatre of innovation' more appropriate to enabling change in the complex and highly diverse smallholder and pastoral production systems of Africa. However, this requires institutional changes that will provide an appropriate context for innovation.

An agricultural revolution in Africa must focus on smallholder family farms. Experience and research have shown that an agricultural revolution in Africa to address rural poverty

⁶ NEPAD. 2002. www.nepad.org

⁷ Mukiiibi, J and Youdeowei, A. 2006. Agricultural Research Delivery in Africa: An assessment of the Requirements for Efficient, Effective and Productive National Agricultural Research Systems in Africa. Executive Summary and Strategic Recommendations. Accra. Ghana. FARA.

and development has to focus on smallholder family farms not only because of their overwhelming numbers but also because they are capable of change.

The concept that smallholder farms can be the basis for a green revolution has been proven in Côte d'Ivoire, Mali, Kenya and Zimbabwe. Experience in Zimbabwe, Kenya, South Africa and Namibia, as well as in Asia, shows that large farms cannot be the main model. But improving the welfare of smallholder farmers requires the development of knowledge and knowledge systems about rural agriculture, mass uptake and the development of a rural middle class.

Positioning agricultural research institutions to be fully effective The agricultural education system needs to build directly on the knowledge of these smallholder farmers and communities as opposed to training high-level technocrats at universities or through extension services and research institutions. Building the capacity of women farmers and scientists, creating smart rural institutions, such as commodity associations, village banks and family businesses, and strengthening research, problem solving and business management skills will be important. Key local educational and research institutions need to be developed with quality intellectual and strategic leadership.

Governance and management National Agricultural Research Institutes (NARIs) need to be encouraged, through appropriate institutional reform, to move away from traditional disciplinary-centred agricultural research, to an innovation systems approach of Integrated Agricultural Research for Development (IAR4D).

The recommendation that FARA should establish an African Agricultural Research Services Facility (AARSF) to coordinate sustained support for building agricultural research management capacity for African NARS is highly commendable. Various international organisations already offer courses in managing agricultural research. However, there is a need for Africa to take on responsibility for building the capacity of its agricultural leaders through, for example, courses such as the University of the Free State's two-week course for African agricultural research managers.

Financing agricultural research institutions With the exception of Botswana, Mauritius and South Africa, most African NARIs are under-funded and depend mainly on donor support. New and innovative mechanisms for funding agricultural research need to be explored by FARA, in collaboration with the SROs and NARIs. These could be, for example, engaging support from the private sector or developing strategic alliances and partnerships with universities.

As well as generating new knowledge, researchers need to actively apply and use knowledge and technology to generate new products, processes and services. This means improving the environment for commercialisation in NARIs, as well as in universities. Researchers need infrastructure and the assistance of entrepreneurs, and legal and business experts, to help to identify projects that have the potential for commercialisation and to provide support in patenting their innovations. Commercialisation and patenting pave the way for generating an additional or third funding stream for universities.

Strengthening human and institutional capacity Most NARIs in Africa employ less than 100 scientists. Only South African, Nigerian and Kenyan NARIs employ more than 500. Nearly three-quarters of researchers employed in NARIs have PhDs, but less than half of them are women.

Four recommendations to improve this situation were put forward⁸. Firstly that FARA should support detailed studies of the critical mass of scientists required for effective agricultural research and development (R&D), such as the analysis recently completed of agricultural R&D capacity in South Africa⁹. Secondly, that in collaboration with partners such as the Consultative Group on International Agricultural Research (CGIAR) Centres, Food and Agriculture Organisation (FAO), Centre Technique de Coopération Agricole et Rurale (CTA) and others, scientific and institutional capacity building should be integrated in all FARA regional programmes, as well as in the SROs and NARIs. The main focus should be on training of trainers. Thirdly, that innovative programmes should be developed to accelerate the training of women agricultural scientists. Finally, that NARIs should lobby national governments for additional resources to support priority investment in Information and Communication Technologies (ICTs) and connectivity. Here, FARA should help by establishing strong links and collaborating with existing international information system providers, such as CTA and the FAO.

Strategic alliances and partnerships Successful networking establishes viable, functional alliances and partnerships. These are essential to optimise research resources and strengthen individual members. However, research networking in African NARS is not institutionalised, but is mainly driven by development partners and donors. In Burkina Faso, for example, despite the fact that collaboration between the NARI the Institut National Pour l'Etude et la Recherche Agronomiques (INERA) and farmer-based organisations is strong, it depends completely on donor support. Although not donor-dependant, the ARC and the Provincial Departments of Agriculture in South Africa have had to develop strong links to ensure technology transfer. The establishment of the National Agricultural Research Forum (NARF) aims to strengthen and support efforts in a more unified, integrated and mutually supportive way.

The recommendation that collaboration and partnerships between NARIs, the universities and NGOs should be formally established in a number of pilot countries is strongly supported. Universities can play an important role in assisting NARS to be fully effective, examples of such include Wageningen University and Research Centre in the Netherlands, the American Land Grant System, and universities in India and Brazil.

Platform for African-European Partnership on Agricultural Research for Development (PAEPARD) side event *Sponsors: European Forum on Agricultural Research for Development (EFARD) and FARA*

PAEPARD is an inter-regional collaboration between Africa and Europe coordinated by FARA and EFARD to strengthen African competitiveness in agricultural research, education and development. PAEPARD, built on strong interest and support from the participants at the side-event, is at the inception stage. Within 12 months, PAEPARD will have built a sustainable platform owned by all stakeholders, developed a business plan, taken concrete action on short and long term targets, and built partnerships based on subsidiarity and shared understanding.

8 Mukiibi, J and Youdeowei, A. 2006. Agricultural Research Delivery in Africa: An assessment of the Requirements for Efficient, Effective and Productive National Agricultural Research Systems in Africa. Executive Summary and Strategic Recommendations. Accra. Ghana. FARA.

9 Ewang, P. 2006. Situation Analysis of Agricultural R&D Capacity in South Africa. Department of Science and Technology. South Africa.

Summary of plenary discussions

Prof. Emmanuel Ewusu-Bennoah, in responding, said that African institutions were set up decades ago and that research structures and mandates now need to be revised based on changing demands. Innovation in Africa needs to take a systems rather than a pipeline approach. The emphasis should be on relationships among stakeholders, facilitating the flow of information and getting feedback to developers of technologies. As they have limited human resources and infrastructure, research institutions need to develop their own strategies to reach end-users, such as using ICT to deliver outputs.

Jean Daniel Ngou Ngoupayou emphasised that the roles of FARA and SROs are key in supporting the implementation of strategies to improve agricultural research. Ultimately, NARIs will be productive and sustainable only if national governments, in accordance with the commitments made by Heads of State in the framework of NEPAD and the CAADP, effectively support agricultural research.

As regards research funding, Mali and Ghana have close links with the World Bank that support their agricultural research systems. The East Asian miracle happened because these countries built human capital, applied research capital and acquired technology. Endowment or trust funds are also mechanisms for funding research.

NARIs are overstretched when they are involved in areas where they do not have a comparative advantage, especially in technology transfer. The innovation systems approach is, therefore, more appropriate but needs to be better understood.

The priority setting and budget planning skills of NARIs are weak and FARA needs to intervene at the regional level. Monitoring and evaluation should also be included.

6. Learning lessons from responding to risks and disasters

Recommendation FARA stakeholders must develop adequate veterinary capacity, initiate livestock disease surveillance, epidemiological and response systems, and interlink them with the human disease counterparts to enable nations to cope with disease outbreaks, especially of zoonotic diseases, and to comply with international health and safety standards. Improved community-based responses are also required to ameliorate the risks of desertification and land degradation.

Key issues

- Trans-boundary diseases (TADs) can result in catastrophic production losses; damage food security; disrupt trade in animal products; and harm human health. Such diseases therefore have disaster implications.
- Insufficient logistics and financial resources, inadequate veterinary services, poor control of animal movements at borders, and conflicts have contributed to the spread of highly pathogenic animal diseases, such as avian influenza, and Rift Valley Fever.
- Regional and international cooperation need to improve in order to contain, eradicate and prevent further spread of diseases.
- Measures to respond to natural risks and disasters, such as desertification, will only succeed if they save lands *and* build livelihoods.

Introduction

Dr M.T. Traore, African Union Inter-African Bureau for Animal Resources (AU-IBAR)

Trans-boundary animal diseases (TADs) that affect both man and animals, such as highly pathogenic avian influenza (HPAI) and Rift Valley Fever (RVF), are major causes of morbidity and mortality. These diseases can also seriously constrain international trade in livestock and livestock products. This can have far-reaching economic and social consequences for developing countries where these diseases sometimes turn into natural disasters, disrupting fragile economies and reversing development gains made over several decades.

Effects of HPAI and RVF on the productivity and competitiveness of African agriculture in a global environment TADs, such as HPAI and RVF, are major constraints to profitable livestock operations. They reduce incomes directly (through mortality and reduced productivity) and indirectly (through restrictions on regional and international trade in livestock and their products). The presence of TADs means that countries must comply with the Sanitary and PhytoSanitary (SPS) standards of the World Trade Organisation (WTO) which are implemented by the World Organisation for Animal Health.

Since 2003, following the spread of HPAI outbreaks from Southeast Asia, Africa has been regarded as the weakest link in global prevention and control of the disease because of the inherent weaknesses of the continent's epidemio-surveillance networks, diagnostic laboratory capability and capacity to respond to emergencies. In Africa, little or no attention was being paid to the disease interactions between domestic and wild birds and there was a lack of general awareness.

Issues, threats and challenges of responding to HPAI and RVF crises The African continent recorded its first HPAI outbreak in domestic poultry in Nigeria on 8 February 2006. Since then Egypt, Niger, Cameroon, Burkina Faso, Sudan, Côte d'Ivoire and Djibouti have reported outbreaks of the disease in domestic poultry. Constraints and weaknesses in national Environmental Programme Plans (EPPs) and action plans became evident. The disease did not spread within infected countries where poultry densities were low. But the threat of spread to the entire African continent is higher than ever before. This could occur in many ways, including as a result of poor biosecurity in poultry farms, the movement of poultry and poultry products, the live bird trade, and licit and illicit trade in wild birds.

The strategy for the control of avian influenza in Africa was defined in September 2005 by the African Union - Inter-African Bureau for Animal Resources (AU-IBAR) in collaboration with the Office Internationale des Épizooties (OIE) and the Food and Agriculture Organisation (FAO). The three-year implementation plan is based on coordinated communication, disease prevention and control to reduce the spread and limit the exposure of humans to the virus, and on strengthening public health programmes. The successful implementation of the action plan requires efficient coordination of stakeholders in the field as well as funding institutions. In the longer term, veterinary services and health institutions will need to be strengthened to a level that is sustainable and complies with OIE standards.

Insufficient logistic and financial resources, inadequate veterinary services, poor control of animal movements at borders, and conflicts, contribute to the spread of the HPAI and other trans-boundary animal diseases. Prevention and control is best achieved through a combination of strategies, such as surveillance and monitoring, slaughter, appropriate compensation to producers for slaughtered animals, compartmentalisation and zoning when complete eradication cannot be achieved, and vaccination and preventive de-stocking.

Coordinating prevention and interventions Success in containment and eradication is a function of what lessons have been learnt so far, and finding ways to harness the lessons and integrate them into regional emergency preparedness and action plans. Current technologies now allow for fairly accurate predictions on climatic risk factors for trans-boundary diseases, such as Rift Valley Fever, and prevention and control guidelines are available. The AU-IBAR advocates the concept of Regional Animal Health Centres in partnership with OIE and FAO to coordinate activities.

OASIS Challenge Programme side event Sponsors: ICRISAT and ICARDA

This side event discussed priorities and partnerships for a proposed global Challenge Programme (OASIS) to contribute to the fight against desertification (dryland degradation due to human and natural forces). While OASIS is a global programme, the desertification problem is particularly serious in Africa.

Discussions focused on two main issues, firstly, the need to pay attention not only to agricultural systems but also to environmental impacts and valuation, because environmental resources underpin livelihoods and, secondly, the need to ensure a strong capacity-building component, for example through knowledge-sharing.

A holistic, systems approach, including broad and deep partnerships, was recommended, represented by five priorities:

- Understanding human-induced degradation of dryland agricultural and natural ecosystems.

- Improving dryland landscape, soil, water and nutrient management.
- Improving dryland policy, market, and institutional options to combat desertification.
- Development pathways and livelihood options that lead to more sustainable, diverse, remunerative, and resilient dryland management.
- Improving co-learning by linking sources of local and scientific knowledge in the drylands.

African Grassroots Innovation for Livelihoods and the Environment (AGILE) side event

Sponsor: LandCare International

The AGILE side event shared experiences, explored the role of community-led institutions in sustainable land management and highlighted best practices for community level institutional development. This included describing possibilities/opportunities for the LandCare International alliance, the African Landcare Network and national Landcare programmes in up-scaling land care.

Summary of plenary discussions

Dr Ousamane Badiane, in responding, drew attention to the value of simulation exercises to prepare producers and populations to face risks and disasters. Outbreaks of highly pathogenic animal diseases can have huge socioeconomic impacts, for example, on incomes and nutrition.

A participant shared Nigeria's experiences in bringing HPAI under control. Four measures were taken: firstly, immediate action to identify the zone affected by HPAI, second, total elimination of animals within affected zones, third, adequate compensation, and fourth, continuous, effective surveillance.

In response to a query about how crisis management and prevention costs compare, participants were told that the International Food Policy Research Institute (IFPRI), jointly with the International Livestock Research Institute (ILRI) and FAO, is about to launch a programme to evaluate the socioeconomic consequences of these outbreaks and define a possible portfolio of actions and measures to face such situations.

Participants were urged to develop an interest in the relationships between diseases and weather. Because the way diseases spread is influenced by events which are predictable, there is a need to develop intelligent means to use Information and Communication Technologies (ICT) to provide advance warning in real time.

A participant commented that although only three people died in Tanzania from Rift Valley Fever, the disruption to the meat industry was considerable. Before the outbreak about 180 head of cattle were slaughtered daily, but this dropped to three head daily. As a result, the price of meat jumped from US\$1-2 to US\$4-6 per kilogramme.

On the subject of compensation for producers, another participant pointed out that in Senegal the Government raised a tax on imported poultry as a compensation measure to support poultry

producers. Most governments concerned with outbreaks have taken proper and appropriate measures, but there is still room for improvement. Producers must be compensated before animals are slaughtered. If compensation is too low producers will negate control efforts because they will not cooperate and will sell their animals, thus spreading disease.

7. Africa's capacity to build human and institutional capacity for the agricultural industry

Recommendation. FARA stakeholders should address the broad and systemic issues in capacity strengthening, so as to focus on causes rather than symptoms, and also to ensure that the capacity strengthening initiatives reflect established demands, and redress gender and age imbalances and inequities. In so doing, they should take advantage of Information and Communication Technologies (ICTs), existing capacity strengthening and technology-mediated learning, and information and learning networks. These must be underpinned with African investment and the creation of conducive environments for trainers, researchers, change agents and the private sector to work together effectively within strategies for harnessing African capacities.

Key issues

- A major cause of Africa's slow progress is a poor capacity for innovation, particularly in agricultural research for development.
- Expanding Africa's capacity for agricultural innovation requires radical changes in methods and tools for building human and institutional capacity.
- National governments must support agricultural research for development. It is not strategic for Africa to depend on external sources to build capacity.
- The innovation systems approach must be adopted and ICT harnessed to implement strategic research programmes.
- Available resources must be harnessed and deployed strategically and synergistically.

Introduction

Anthony Youdeowei, International Consultant, Cote d'Ivoire

Agricultural research and the application of its science and technology outputs and innovations to agricultural development plays a pivotal role in effectively addressing the challenges of Africa's sustainable socioeconomic development to meet the Millennium Development Goals (MDGs). Agricultural research aimed at addressing pressing national and sub-regional problems, and that will have the desired impacts on community development, depends on harnessing human and institutional capacities efficiently.

Sadly, it is widely accepted that agricultural research and the application of its science and technology to agricultural development have not significantly reduced hunger and poverty in Africa. This is a major factor in predictions that Africa will fail to meet MDGs 1 and 7—reducing hunger and extreme poverty and ensuring environmental sustainability. A major cause of Africa's slow progress is a poor capacity for innovation, particularly in agricultural research for development. This is of particular concern as the number of young researchers is declining, mainly because many young Africans consider agriculture and agricultural research as professions of last resort.

Restoring and expanding Africa's agricultural capacity for innovation requires radical modifications and changes in how human and institutional capacity is being strengthened.

Approaches must be directly tailored to the needs of rural and urban societies. This means strengthening capacities to address food insecurity, to reduce poverty, to create wealth and encourage entrepreneurs. Such changes demand new dimensions and paradigm shifts in the models for conducting agricultural research for development, as well as new and more appropriate approaches to agricultural education and training. Making these changes will empower individuals and institutions to more adequately address national and sub-regional agricultural development issues.

The linear research-extension-adoption approach must give way to a holistic and inclusive innovation systems approach that involves all actors in agricultural value chains. This requires high-calibre specialists who have systems skills and can work with colleagues from other disciplines and occupations. Individuals and institutions taking part in multi-disciplinary, multi-institutional and multi-stakeholder endeavours must be highly competent in their specialisations and also able to communicate and negotiate effectively with other actors and partners.

One concept of capacity building is that it ‘encompasses any activities that enhance the capabilities of individuals, institutions and organisations to contribute to effectively harnessing Science, Technology and Innovation (STI) for sustainable development’. It is vitally important to adopt this concept as a framework for designing capacity building/strengthening programmes for Africa’s agricultural research for development.

Building/strengthening Africa’s capacity to develop individual and institutional capacities requires concerted action. African national governments must have the political will and take action to provide adequate support for agricultural research for development so that African countries can break their current dependence on donors. A research environment that enables scientists and other professionals to function effectively must be created. Agricultural research and scientific human, and other resources, must be harnessed more effectively. The innovation systems approach must be adopted and ICT harnessed to implement strategic research programmes. Recognition and reward systems must be established at institutional, national and sub-regional levels to encourage and reward excellent individual and institutional research performance and achievement. Finally, scientific and research management mentoring mechanisms for young scientists must be developed to guarantee that retiring scientists can be replaced and to ensure continuity in agricultural research programmes.

Above all, Africa must address its needs for capacity strengthening across the whole spectrum of agricultural and related industries. This requires major and dramatic improvements in research funding, improved research facilities and equipment as well as revised curricular, teaching and learning methods and aids, improvements in the terms of service and working conditions of teachers and trainers, and the application of modern distance education methods for all agricultural professionals including farmers.

Africa has the institutional framework already in place to depart radically from outdated/inappropriate agricultural research, education, training and learning practices. The time has come for concerted and collaborative actions in human and institutional capacity strengthening to support Africa’s agricultural industry.

Capacity Strengthening, Information Exchange, Learning and Foresight for Agricultural Innovation side event

Sponsors: Centre Technique de Coopération Agricole et Rurale (CTA), FARA and Regional Universities Forum for Capacity Building in Agriculture (RUFORUM)

This side event addressed the issues of innovation and innovation systems, foresight, policy, capacity strengthening, learning and knowledge networking, ICTs, universities, research and training organisations, women and youth. The side event brought forward seven key issues for capacity building in African agriculture.

1. Future aspirations need to be the basis of today's innovations and investment.
2. Good leadership and foresight in innovation systems are critical for success.
3. Opportunities provided by ICT/ICM as well as open learning modes need to be harnessed.
4. It is critical to link research to policy.
5. Capacity building efforts must address the needs of a diversity of actors and be linked to value chains.
6. Initiatives such as Strengthening Capacity for Agricultural Research in Africa (SCARDA) and the Regional Agricultural Information and Learning System (RAILS) and organisations such as the Centre Technique de Coopération Agricole et Rurale (CTA) and networks such as African Network for Agroforestry Education (ANAFE) and RUFORUM, offer opportunities to build linkages and synergies.
7. Universities need to be brought on board and integrated into national agricultural innovation systems, as per the US land grant university model.

Lifelong Learning (L3) and Tech-MODE: A Paradigm Shift in Extension for Africa *Sponsors: Commonwealth of Learning (COL). Vancouver, Canada*

This side event made several recommendations to cope with declining investment by governments, more and more challenges due to globalisation, poor flow of information and management of knowledge, and lack of involvement of farmers and other value-chain stakeholders.

The recommendations included developing self-directed personal-strategic learning in farming, pastoral and fishing communities in the context of entire value chain linkages. Knowledge institutions should form consortiums to deliver extension packages using various technology-mediated open and distance education (Tech-MODE) options.

The banking and insurance sector could invest in research and extension as a business strategy. The side event recommended that FARA should follow up on this by bringing together policy makers, bankers and insurance companies to discuss agricultural credit, research and extension with particular emphasis on promoting lifelong learning using Tech-MODE.

Acting on these recommendations would begin to generate a self-sustaining, self-generating, self-replicating process of extension.

Summary of plenary discussions

August Temu, in responding, reiterated the need for radical changes in methods and tools to strengthen capacity. He pointed out that the capacity for innovation is not limited to researchers. Farmers produce new crop varieties all the time. Other innovators are salespersons, processors, and policy and decision makers. These too need to be mobilized. A focus on researchers feeds directly into the African brain drain.

Capacity building networks are a response to massive institutional failures and can provide niches for launching any agenda. Networks help Africans overcome scientific isolation, mobilize and extend existing human capacity, and reinforce intellectual contact, collaboration and peer review.

Agricultural education programmes do not have the backward, forward and lateral links that would make them relevant. FARA needs to lobby for complete reforms that meet real needs. It is not strategic for Africa to depend on external sources to build capacity.

The discussion reinforced the main issues and messages covered in the keynote speech and reports from the side events. Strengthening agricultural research and applying the outputs and innovations are key to achieving the MDGs. To do this, African human and institutional capacity, which is currently very weak and eroding very fast, needs to be strengthened. This means radical modifications and changes in the ways human and institutional capacities are built.

8. Mobilising civil society for agricultural research for development

Recommendation FARA stakeholders should recognise that Sub-Saharan and North African civil society organisations are very diverse and that attempting to impose values is not helpful. Civil society organisations must be supported and strengthened to help them to fulfil their missions in the context of shared rather than imposed values. This must be based on mutual objectives and respect for each other's perspectives and motives rather than on artificial organisational conveniences.

Key issues

- Civil society organisations have an important role to play in developing agriculture and should be directly involved in the agricultural research for development process.
- Collaboration that recognises and respects the values and motives of civil society organisations can unleash synergies.
- Research and extension should help build capacity in civil society organisations to take developments in agriculture to communities.
- There is a need to strengthen the capacity of farmer organisations at all levels.

Introduction

Monica Kapiriri, Sub-Saharan Africa Non-Governmental Organisations (SSA NGO) Consortium facilitation group

In its efforts to mobilise civil society organisations, the agricultural development community needs to take into account the factors that motivate and de-motivate them.

Definitions of civil society organisations and their implications The agricultural research community has attempted to group civil society organisations into categories to make working with them easier. The categories range from functional categories (such as representation, advocacy, technical expertise, capacity building and service delivery) to categories based on size and composition (with classifications such as agricultural commodities, health, environment, grassroots, district and national).

Motivating and de-motivating factors for civil society organisations Factors that motivate civil society organisations align with their visions and aims. This means they work best with those who share their values and ways of doing things, and genuinely appreciate and respect differences. Civil society organisations do not appreciate being forced to change for the convenience of others. They are motivated by a sense of pride in being associated with a cause, encouragement to do better and to give their best, and knowing that they matter.

Civil society organisations become de-motivated when they feel that relationships are for someone else's convenience and that they are being exploited, or when what is required of them is too technical. They are also put off when requirements conflict with their other commitments and interests. Being asked to partner with those who they see as foes or who represent negative power relationships, previous bad experiences, constant frustrations and

individuals who take part for personal gain are all factors that de-motivate civil society organisations. Not least, projects that do not add value in the short term, that are not relevant and that do not respect participants, do not inspire them to become involved.

FARA aims to have strong civil society organisations actively participating in agricultural research at all levels. This means that FARA needs to create practical avenues to engage civil society organisations meaningfully in agricultural research and development.

Joint meetings (such as the meeting in Accra that brought together NGOs, farmers, the private sector and researchers) should continue. Civil society organisations also need to meet as a sector to deepen their own understanding and appreciation of each other, and to learn to appreciate the synergies that can be unleashed with meaningful collaboration.

Motivating and de-motivating factors need to be taken into account if civil society organisations are to be successfully mobilised for Agricultural Research for Development (AR4D). Civil society organisations and the agricultural development community must discuss these openly and, together, develop the way forward.

Farmers' Organisation side event *Sponsor: FARA*

Farmers' organisations agreed to create an Africa Alliance of regional Farmer Organisations to bring together existing groups, such as the Eastern Africa Farmers Federation (EAFF), the Réseau des Organisations Paysannes et de Producteurs de l'Afrique de l'Ouest (ROPPA), the Platform of Central African Peasant Organisations (PROPAC) and the Southern African Confederation of Agricultural Unions (SACAU). They called on FARA, GFAR, the International Federation of Agricultural Producers (IFAP) and the International Fund for Agricultural Development (IFAD) to support the process. The proposed alliance will provide an Africa-wide platform where farmers' organisations can work together on issues affecting African agriculture. Now that North African countries have joined FARA there are new opportunities for cross-learning in agriculture value chains.

Although some farmers participate in research, they are poorly represented in governance, planning, implementation, and monitoring and evaluation of research programmes and activities. As yet, farmer groups cannot effectively engage and participate in international trade negotiations and defend their interests in global, competitive markets. FARA's support for and endorsement of an Africa Alliance of regional Farmer Organisations will help farmers begin to address these issues.

Sub-Saharan Africa NGO Consortium (SSA NGOC) side event *Sponsors: FARA Secretariat and SSA NGO Consortium*

Discussions covered activities of the last two years and planning for the next three, repositioning the Consortium in line with regional and global emerging issues, and identifying links and areas for collaboration in the agricultural research and development regional agenda.

In the next two years, the Consortium will set up an Interim Steering Committee Secretariat in South Africa, strengthen links to sub-regional forums and programmes, support sub-regional focal points and the on-going typology and mobilisation of NGO members, and work with other stakeholders in AR4D.

The Consortium will work with FARA to advocate for inclusive AR4D at sub-regional levels, the participation of women and youth in AR4D, sustainable AR4D, and the raising of awareness on emerging global issues.

The Consortium will seek partnerships and strategic alliances to help disseminate technologies and innovations, closely engage with other FARA initiatives, work with FARA, GFAR, and SROs to enhance access to knowledge and technology by end users, and collaborate with CG centres based in Africa and other key players in AR4D.

Participatory approaches to empower local communities in non-tropical dry areas of Africa: International Center for Agricultural Research in the Dry Areas (ICARDA) experience side event *Sponsor: ICARDA*

This side event explored successful experiences in participatory approaches in marginal dry areas. Participatory approaches can be effective in targeting poverty, reducing the time lag between technology development and adoption, and empowering communities.

Participatory approaches in agricultural research and development help communities learn new methods and technologies and encourage scaling up and scaling out. These approaches pave the way for civil society organisations to mobilise communities and disseminate technologies. In addition, these approaches can forge links with wider development programmes. Setting up village-based seed enterprises encourages changes in policies and institutions that give farmers better access to seed. To be recognised as international public goods, the outputs of participatory research should be scientifically rigorous. Participatory approaches should be a priority in building partnerships with civil society organisations.

Summary of plenary discussions

Adnan Gibriel, in responding, emphasised that civil society organisations have an important role to play in supporting agriculture as a means to achieving food security. In North Africa, over the last 50 years, civil society organisations have played a significant role in improving livelihoods. In relation to the environment, agriculture, natural resources and forestry they have been less successful, however. Their capacity to collaborate with scientific institutions needs strengthening in these areas.

Plenary comments supported the need for in-depth analysis of motivating and de-motivating factors for civil society organisation (CSO) involvement in AR4D. Additionally, research and extension should help build CSO capacity to take developments in agriculture to communities.

The plenary noted that NGOs play a significant role in sustaining research. When research cycles come to an end, it is the NGOs that continue to promote and disseminate the research products/technologies. This means they need to be directly involved in the AR4D process.

Farmer organisations were also urged to be more inclusive of other organisations. Farmer organisations can disseminate technology and can even execute contracts for agricultural development.

Participatory approaches enhance adoption. However, impact assessments of technologies promoted through participatory approaches should be made to provide evidence that they are cost-effective in improving livelihoods.

The plenary commended the proposal for an Africa Alliance of Sub-regional Farmer Organisations as such an alliance will provide opportunities for such groups to learn from each other. However, the establishment of the proposed alliance should be undertaken in tandem with the capacity building efforts of farmer organisations at the national, sub-regional and regional levels.

9. Peri-urban agriculture

Recommendation

FARA stakeholders should regard research on peri-urban agriculture as a mainstream activity. This requires new approaches to research and the dissemination of outcomes, including exploitation of the diversity of African horticultural crops and the demands of local markets and the African diaspora. The research should also identify the risks associated with horticultural production and the potential for development inherent in the diversity of livestock, fish, trees, insects and microbes.

Key issues

- Growing production of high-value commodities is being driven more by changes in demand than changes in production technology.
- Agricultural researchers and extension agents need to address market demand and the entire value chain.
- More attention needs to be given to product quality, durability and traceability.
- Increases in productivity must be made through more efficient use of water, labour, land and other inputs.
- Health and environmental risks are significant and must be addressed.
- Africa must maintain and optimise use of genetic biodiversity.

Introduction

Dr John Pender, Senior Research Fellow, International Food Policy Research Institute

Peri-urban areas of Sub-Saharan Africa offer smallholder farmers and others major opportunities to increase and diversify their incomes, improve their diets and manage natural resources in a more sustainable manner. Population and per capita income growth, urbanisation, increased foreign demand, liberalisation of trade and foreign investment flows in Kenya and other countries in the region—driving forces for the peri-urban boom—are expected to continue, sustaining a growing demand for high-value, perishable commodities such as fruits, vegetables, milk, meat and eggs.

However, to take advantage of these opportunities, many challenges and constraints must be addressed. These include maintaining and improving security and the macroeconomic environment, reducing policy uncertainties and corruption, investing in infrastructure and making sure smallholders can access productive assets, technologies, information, markets, and appropriate institutions.

Issues of particular importance to high value peri-urban agriculture include:

- *Demand:* Unlike the Green Revolution, the ‘silent revolution’ in high-value commodities is being driven more by changes in demand than changes in productive technology.
- *Land and water:* Access to sufficient suitable land, and especially water, for intensive agriculture in peri-urban areas, is likely to be an increasingly binding constraint. Competition for water for other uses is increasing rapidly.

- *Value chains*: Much of the challenge facing African smallholder producers lies in how to become integrated into the value chains for high-value commodities. These value chains are increasingly dominated by just a few global retail firms whose demands for product reliability and quality represent high barriers to entry to international markets.
- *Health and environment*: Peri-urban agriculture poses very serious health and environmental risks and these will escalate.

The demand-driven and privately-led nature of the silent revolution needs a model of research and development success different from the model that drove the Green Revolution. Agricultural researchers and extension agents will need to pay much more attention to market demand and how entire value chains work than was necessary for staple crops that could be stored for long periods. Private sector perspectives, such as those of input suppliers, traders, exporters and retailers, as well as the perspectives of farmer organisations and civil society, need to be incorporated into the process of defining the priorities of agricultural research for development. Rather than focusing on increasing yields, as was the case in the Green Revolution, we must pay more attention to issues such as product quality, durability and traceability.

Unlike in the Green Revolution, increases in productivity will not be based on dramatic increases in irrigation, but on more efficient use of water, labour, land and other inputs. It will be crucial to consider the potential social and environmental impacts of new technologies.

The role of public research and extension organisations is likely to be less significant in developing high-value agriculture in Sub-Saharan Africa than in developing production of staple foods. However, public research and extension agencies still have critical roles to play, particularly in helping smallholders to access suitable technologies and market opportunities in high-value agriculture. They can help farmer organisations and provide links to information about technological and market opportunities.

Urban horticulture in Africa side event

Sponsor: Global Horticulture Initiative

This side event explored the challenges for the research community, civil society and local authorities in high-value agriculture and horticulture.

The horticultural sector *boosts urban development*. Researchers will play an important role in providing evidence that urban horticulture and agriculture benefit cities in a variety of ways. They will also be important in converting constraints, such as waste disposal and competing demands for water, into opportunities.

An inclusive approach will make urban agriculture *safer and more sustainable*. Social partners can help promote good practices and researchers can provide arguments and support application of existing technologies, such as information systems, recycling techniques for wastes (both urban and agricultural), technologies to treat water and drip irrigation.

Complementarities with other agricultural and economic sectors offer scope for adding value in areas such as certification and labelling, processing and niche markets. Adapting and turning constraints into opportunities, for example growing ornamentals or seeds on polluted soils, bringing genetic diversity from rural to urban areas and contracts between community gardens and poultry producers to process manure, offer many possibilities.

Much could be gained from *linking anglophone and francophone communities* working on urban agriculture.

Agricultural Biodiversity side event

Sponsors: Bioversity International and FARA

Agricultural biodiversity (ABD) is fundamental to agricultural development and human welfare—food security, nutrition, human and environmental health. In Africa, weaknesses in managing and using agricultural biodiversity at both country and regional levels mean that Africa does not make the most of her genetic resources and that valuable genetic resources are lost. Despite this, agricultural biodiversity does not feature significantly in country and regional strategic and action plans.

The proposed Agricultural Biodiversity Initiative for Africa (ABIA) will be a platform for generating visibility, resources and collaborative engagement to support management, conservation and use of agricultural biodiversity in Africa.

Participants recommended the ABIA initiative to the FARA General Assembly 2007 for endorsement and requested that FARA be mandated, in partnership with Bioversity International, to develop the initiative with relevant stakeholders.

Summary of plenary discussions

In responding, Dr Adama Traoré commented that the close ties and dynamics between rural and peri-urban agriculture—the urban-rural continuum—justify a more systematic approach. The Kenyan model of milk production is of particular interest to the countries of West Africa which are major importers of dairy products. The successful integration of policies for genetic improvement and artificial insemination, and the organisation of dairy farmers in the collection, processing and distribution of fresh milk in this model are particularly notable.

The risks and dangers in peri-urban agriculture, such as using contaminated water for irrigation, contamination by heavy metals and inappropriate use of pesticides, are significant. Public health and veterinary problems resulting from the close cohabitation of people and animals are also a serious concern. An important challenge is to ensure that political decisions regulating urban and peri-urban agriculture are underpinned by rigorous science.

10. Capturing indigenous knowledge for development while respecting intellectual property rights, ethical and moral integrity and biosafety

Recommendation FARA stakeholders should mainstream indigenous science into agricultural research and development, and make the necessary personal and institutional adjustments that are required to enable communication and joint learning between practitioners of the different sciences. The intellectual property of indigenous communities should be afforded enforceable legal protection against external misappropriation and exploitation, and the communities should be assured of their right to use and share biodiversity amongst their communities and in their domains.

Key issues

- Indigenous Knowledge contributes significantly to agricultural development, poverty reduction, food security and sustainable natural resource management in Africa.
- Indigenous Knowledge Systems have the capacity to innovate from within and adapt external knowledge to suit their local situations and contexts.
- Effective research and documentation of Indigenous Knowledge Systems, traditional knowledge, practices, their application and transfer is a challenge to agricultural research in Africa.
- Particular attention should be given to policy, institutional and legal frameworks to access and share benefits and provide appropriate Intellectual Property Rights to avoid the exploitation of indigenous knowledge holders.
- Progress is slow on reaching an international consensus on the protection of intellectual property rights with regard to Indigenous Knowledge Systems.

Introduction

Mogege Mosimege, North-West University Mafikeng, South Africa

Indigenous Knowledge Systems (IKS) are complex and dynamic. Over the past 10 years they have begun to be recognised and accepted into the mainstream of knowledge. Policies, strategies, draft legislation and centres to advance Indigenous Knowledge (IK) are being developed, particularly in South Africa. This increased interest has brought challenges related to intellectual property rights as well as raising ethical and moral issues. Communities that hold most of the indigenous knowledge still feel marginalised and do not play a significant role in addressing the challenges.

The World Intellectual Property Organisation (WIPO), through the Intergovernmental Committee (IGC) on Intellectual Property and Genetic Resources, and Traditional Knowledge and Folklore, is working to develop a common understanding, and to recognise, promote

and protect IKS. Currently the IGC is discussing draft provisions to enhance the protection of traditional knowledge and traditional cultural expressions against misappropriation and use. However, there is still no consensus on the protection of intellectual property rights stemming from and related to Indigenous Knowledge Systems.

Indigenous knowledge – the concept Indigenous Knowledge Systems are a complex set of knowledge, skills and technologies existing and developed around specific populations and communities indigenous to a particular geographic area. They represent the knowledge that people in a given community develop over time and continue to develop in agriculture, food preparation, health care, education and training, environmental conservation and a host of other activities.

Developments in Indigenous Knowledge Systems in Africa As scientists struggle to respond to global challenges they have increasingly distanced themselves from local ways of solving problems⁶. Local solutions can even be discriminated against as hindering progress, outdated, ‘old wives tales’, or simply just unfashionable. But, there is not one of the Millennium Development Goals to whose achievement indigenous knowledge cannot contribute and Indigenous Knowledge Systems are increasingly being used to address developmental issues in several African countries.

Challenges related to increased focus and documentation of indigenous knowledge systems in Africa The interest in indigenous knowledge systems brings challenges related to intellectual property rights as well raising issues of ethical and moral integrity.

Benefit sharing mechanisms and models Researchers and other practitioners in Indigenous Knowledge Systems face the challenge of changing the way they operate in order to break down and remove barriers. Of particular concern are businesses that use IKS without duly recognising and sharing benefits with knowledge holders. In fulfilment of their obligation in the Convention on Biodiversity (CBD), many African countries have enacted or are drafting legislation to share the benefits of biodiversity and indigenous knowledge. But the challenge for many countries is to develop benefit-sharing models that take into consideration knowledge holders who are exploited. Communities that hold most of the IK still feel marginalised and do not play a significant role in developing these models.

National, regional and continental coordination Coordination across national boundaries is critical. Issues of access, sharing benefits and protecting Indigenous Knowledge Systems are not unique to one country. Many issues cut across borders.

The world intellectual property organisation and indigenous knowledge systems The Intergovernmental Committee (IGC) on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore is a platform for countries to share their experiences in indigenous knowledge systems. For example, through the IGC India has shared its experience in the development of a Traditional Knowledge Digital Library (TKDL).

6 World Bank (2004). *Indigenous Knowledge: Local Pathways to Global Development*. World Bank

Preparations for biosafety protocol meeting and biodiversity conventions side event

Sponsors: Foundation for Public Research & Regulation (PRRI), AfricaBio, ASARECA and FARA

This side event informed participants and public researchers from Africa about the Cartagena Protocol on Biosafety (MOP4) and the 9th Conference of the Parties to the Convention on Biological Diversity (COP9), captured inputs relating to MOP4 and COP9 agendas, and created awareness of Foundation for Public Research & Regulation Initiative (PRRI), FARA and AfricaBio activities in this field.

Participants in the side event called for support in implementing National Biosafety Frameworks in African countries, for example in the form of a package of relevant biotechnology and biosafety awareness materials. Support for dealing with regulations for Genetically Modified Organisms (GMOs), such as user-friendly templates for GMO permit application forms and information on potential regulatory costs in implementing GMO laws/regulations were also required. They recommended the creation of inter-ministerial working groups at the national level to expedite enactment of laws and policies on biosafety and biotechnology.

Participants emphasised the need for capacity building, training and short courses on biotechnology and biosafety. They called on FARA to address ambiguities in the African Model Law and its implementation and biosafety issues peculiar to African agriculture (including labelling) and to document what has been learnt so far from the commercialisation of products of biotechnology for presentation at MOP4.

Summary of plenary discussions

Monique Salomon, in responding, identified three areas of dispute.

Existing Intellectual Property Rights (IPR) are intended to protect economic incentives for innovation. They offer a temporary monopoly on ownership and control of knowledge through patents, copyrights, trademarks and trade secrets. However, some suggest that, rather than creating an economic incentive for innovation, existing forms of IPR protect a particular research and development investment or creation, and stifle the ability of others to compete with private interests, thus superseding public interest. They also argue that existing forms of IPR—particularly its notion of ownership—are incompatible with the essence of Indigenous Knowledge Systems: much of Indigenous Knowledge Systems knowledge, wisdom and teachings are spiritually guided, and (special) people are given custodianship. Customary laws regulate the use of wisdom, knowledge and teachings. Some of these are considered sacred and secret, and may be met with spiritual and physical repercussions if violated.

Many indigenous people have ‘dual citizenship’: they are bound to the constitution of the country they live in, as well as the customary law of their ‘First (mother) Nation’. But, as indigenous people are often ethnic minorities, the extent to which they can claim their right to sovereignty, negotiate on their own terms, or even say ‘no’ to sharing their wisdom and genetic resources is questionable. Indigenous people themselves are divided on IPR, making them vulnerable to exploitation. If the Balance Doctrine is applied (balancing private interests against societal values) an ethnic minority may be easily overruled by a dominant majority in a society. Thus, IPR of Indigenous Knowledge Systems is a human rights issue.

Kazhila Chinsembu, in responding, raised the issue of documenting and preserving indigenous knowledge. Indigenous languages are dying away and databases are prone to bio-piracy and can be destroyed. He also pointed out that Africa lacks effective bio-diplomacy which gives control of the IGC process to recalcitrant states. Some ways to overcome these challenges are for African countries to collaborate and learn from each other, for example from South Africa's experiences in drafting legislation and Namibia's progress in benefit-sharing, and to engage stakeholders and civil society organisations.

Chebet Maikut, in responding, emphasised that Indigenous Knowledge Systems and its contribution to various aspects of society in Africa—ranging from health care (human and animal), education, and environmental conservation to agriculture, food preparation and preservation—are not recognised and appreciated. Traditional scientific knowledge—largely oral, rural and location-specific—must not remain invisible to the development community and global science.

Indigenous knowledge systems normally have the capacity to innovate from within and adapt external knowledge to suit local situations and contexts. The important contribution of Indigenous Knowledge Systems to agricultural growth and welfare in farming communities in Africa needs to be recognised and there is an urgent need to integrate IKS in policies, AR4D and development programmes. Much can be learned from the advances made in health care, especially in alternative medicine.

FARA must urgently provide leadership and stewardship so that key actors embrace Indigenous knowledge systems and provide the necessary policy environment to support it. Particular attention should be given to benefit sharing and inherent IPRs in the frameworks to avoid exploitation of the IK holders.

FARA General Assembly Business Meeting



Recommendations

Endorsement of FARA Strategic Plan for 2007-2016 asking FARA to facilitate in achieving broad-based agricultural productivity, competitiveness and markets sustainably improved in Africa.

The General Assembly will be held every three years, the next one is in Burkina Faso in 2010.

New Officials were elected; Chairperson, Dr. Denis Kyetere of Uganda and Vice-Chairperson, Dr. Tiemoko Yo.

The Meeting was chaired by Mme Njabulo Nduli, Chairperson of FARA Executive Committee, and attended by 127 delegates. The Ministerial Communiqué was read (see previous section).

Report on the 2006 Joint External Evaluation

Prof. Anthony Youdeowei presented the Report of the Joint External Evaluation (JEE) 2006, convened by the FARA Secretariat's Development Partners to find a more integrated approach based on effective coordination of their support. This was intended to create the basis for long-term support.

JEE main findings were i) Secretariat had the capacity to support FARA's activities and programmes; ii) the Secretariat had become a knowledge hub for African agricultural research; iii) it had a small effective staff; iv) finances were handled professionally; v) there was a collaborative working relationship with the SROs; and vi) the SROs and NARS had benefited from FARA.

However, they noted that there was a need to increase the Secretariat's human capacity. They made 36 recommendations including the need to: revise the Strategic Plan; articulate the subsidiarity principle to clarify the roles of the different actors; develop a resource mobilisation strategy; add representatives of the African Union to the Executive Board; realign staffing to the new functions and recruit a Deputy Executive Director; and create incentives for African governments to honour their commitment to investing 10% of their budgets in agriculture.

In response to the JEE, the Development Partners issued an aide memoire confirming their intention to harmonise their support and some were committed to developing a Joint Financing Arrangement for pooled funding to support the Secretariat's agreed annual work plan.

Report on the External Programme Management Review

Prof. Mandivamba Rukuni presented the Report of the External Programme Management Review (EPMR), convened by the FARA Executive Committee. The EPMR review was ‘to assess in a strategic manner, if FARA has the breadth and depth of leadership and management systems, processes and human capital to execute its mandate and to fulfil the development needs of its clients, and grow into a viable and sustainable African institution.’

The Panel observed that there had been no EPMRs of the SROs and it would have made their tasks easier if there had been prior or parallel SRO EPMRs and made a recommendation for the future to this effect.

The panel noted that the continued relevance of FARA was clear and undisputed and FAAP had given good elaboration of roles. But there was room for further development of FARA’s niche and for increased commitment from stakeholders. The panel therefore recommended that FARA should revisit its strategy, paying careful attention to the needs of its clients because, despite the extensive consultations, some players did not yet have full ownership and commitment. Since FARA is only one player, more attention needs to be paid to the multiplier effects of its programmes and rigorous evidence provided of what works and what doesn’t and why.

The panel applauded the development of the FAAP but noted that it was a completed product not a programme. The panel commended FARA’s programmes and made specific recommendations for their improvement i.e. there should be three programmes, namely:

1. Agricultural Research and Science Policy Development and Reform
2. Institutional Development Transformation for National and Regional Agricultural Research
3. Knowledge Development and Learning Capabilities for Technical Change.

Other recommendations focused on the alignment of FARA’s Constitution and Governance Manual and regularising FARA’s membership structure and fees. The panel recommended that FARA should remain focussed on the key functions in its Constitution and should limit its activities to enhancing and adding value to the work of the SROs. It made several recommendations concerning the FARA General Assembly, including that it should be held triennially rather than every two years. It also made recommendations for making the Executive Committee more inclusive and for strengthening its Programme and other committees. It recommended the introduction of the post of Deputy Executive Secretary with responsibilities for the programmes.

The panel noted that the success of FARA as a sustainable African institution must be based on its own and on the SROs’ capacity to develop higher levels of leadership capable of building worthy relationships across the board. FARA, ASARECA, ARRINENA, CORAF and SADC-FANR are all African structures for collective action and therefore highly dependent on quality relationships.

In conclusion, the panel noted that FARA is a young organisation with a bright future, provided that its evolving programme is ‘demand’ driven. FARA is the main liaison and guidance vehicle in Africa’s relations with the CGIAR centres operating in Africa. This role is crucial as the CGIAR continues to reform. Finally, the Panel was of the opinion that the foundation is laid for FARA to grow into a genuine, effective and sustainable African

institution. The challenge put to the FARA General Assembly, ExCo and Secretariat is to make the right strategic choices for this noble goal to be achieved.

FARA's response to JEE and EP MR

Dr Jones reported on the implementation of changes recommended by the JEE and EP MR.

He recorded his appreciation for the Development Partners' and the FARA ExCo's commissioning of the respective reviews and congratulated both teams on their excellent work. All the recommendations of the JEE and EP MR had been accepted by FARA's ExCo and were being implemented by FARA and its Secretariat.

A new FARA Strategic Plan had been drafted which reflected the changes such as the development of CAADP and FAAP, international developments such as the renewed G8 commitment to Africa and agriculture, and the updated priorities of SROs and the incorporation into FARA of the North African SRO. However, he questioned the recommendation to limit FARA to only three programmes. The regional initiatives will continue. The SSA CP would move into full implementation phase. SCARDA will catalyse change based on NARS Assessment findings. In keeping with the EP MR's recommendation, RAILS and DONATA will be integrated and synchronised and ABBI will focus only on policy issues.

The cross-cutting issues and mainstreaming strategies included mainstreaming gender equality, and advancing an HIV/AIDS strategy for Africa. The Secretariat would develop an advocacy and resource mobilisation strategy. In developing its new Strategic Plan, FARA had elaborated the subsidiary principle, conducted an analysis of environmental issues, and initiated the harmonization and coordination of financing arrangements.

With regard to the General Assembly, the Secretariat welcomed the recommendation for triennial FARA General Assemblies. Consideration would be given to instituting membership dues and increasing the commitment of African countries. The Secretariat's organisational structure would be revised—including creating the position of Deputy Executive Secretary and programme managers.

Dr Jones was in full agreement that the Executive Committee should meet twice a year and that African Union representatives should be included in its membership. Other accepted recommendations with which he was in full accord included giving full voting rights to the Executive Secretaries of FARA and SROs and extending the term of office of ExCo members to three years instead of two years to coincide with the new interval for General Assemblies.

The Chair noted that the two reviews had been circulated to FARA members for comment, and the FARA response to the reviews took into consideration the comments received, and requested and received endorsement of the two reviews and the FARA's responses.

FARA's new Strategic Plan for 2007-2016

Dr Jones presented FARA's new Strategic Plan and delegates endorsed it with a show of hands. Both the JEE and the EP MR recognised that there had been many changes in the political, economic and agricultural environments in which FARA functions. In the process of revising its Plan FARA took full advantage of cross-fertilization with the development of the ASARECA and CORAF strategies.

The structure of FARA's Strategic Plan (see box) starting with the general objective, consistent with the goal of CAADP to which Pillar IV will contribute, sets out what FARA

will achieve, what results it will deliver to achieve its specific objective, and what it must do to produce those results. The Planning process took full account of the assumptions that must hold for the Plan to succeed; the process included assessments of (1) whether these assumptions could be internalised and (2) the extent of the risk that they posed.

Broad-based means inclusion of many stakeholders i.e. poor farmers and pastoralists, agricultural labour force, poor consumers, entrepreneurs. In this context improved agricultural productivity, which is not just production, requires the uptake of research products, including new technologies that increase production efficiency. Improved agricultural competitiveness increases the abilities of farmers and other stakeholders to compete in the market on price, quality, and adherence to standards. Market improvements are composed of better infrastructure, prices and information. For the production systems to be sustainable they must be based on sustainable environmental, social, economic, political and institutional improvements.

It is recognised that the *Specific Objective* is ambitious and that it will require change which will be difficult for researchers to accomplish on their own. They require new ways of working and utilising the *comparative advantage* that FARA offers e.g. intra- and inter-regionally. The Strategic Plan presents new ways of maximising FARA's comparative advantage as a regional *Forum*, enabled by adherence to the subsidiarity principle. It allows the SROs to fully benefit from regional interventions without compromising their roles.

FARA Strategic Plan (2007-2016)

FARA's strategic goal: sustainable high broad-based agricultural growth.

FARA's super-objective: reducing African food insecurity and poverty and enhancing environmental conditions.

FARA's specific objective: Broad-based agricultural productivity, competitiveness and markets sustainably improved in Africa'.

FARA's role is to promote networking amongst its stakeholders so that the sum of their contributions will add up to more than the total of what they could achieve working separately. The five interlinked and interdependent Networking Support Functions:

Networking Support Function 1: Advocacy and resource mobilisation (activities)

- Development of regional advocacy strategy (based on CAADP goals and FAAP principles)
- Empowerment of a broad base of key stakeholders for assuming advocacy roles
- Assisting in the development of multi-country and national Agricultural Productivity Programmes
- Development and implementation of mechanisms to facilitate harmonised support and resource mobilisation

Networking Support Function 2: Access to knowledge and technologies (activities)

- Supporting the institutional change required to foster networking
- Creation of mechanisms to allow intra- and inter-regional exchange of information
- Support to sharing of decision making tools for a broad base of stakeholders
- Development of mechanisms for transferring skills to develop and apply technologies

- Development of mechanisms for understanding the success and failure of approaches – with appropriate feedback

Networking Support Function 3: Regional policies and markets (activities)

- Identification of constraints imposed on competitiveness by existing agricultural policies
- Analysis of major agricultural institutions in the region
- Development of negotiation skills and capacity of agricultural policy negotiators
- Policy research and analysis to address constraints imposed by inappropriate standards and conventions
- Development of a lobbying strategy

Networking Support Function 4: Capacity strengthening (activities)

- Development of a strategy for creating adequate human and institutional capacity for innovation
- Development of a regional mechanism for information exchange and sharing of teaching and learning experiences
- Development of capacity to enable optimal use of ICT as a teaching and training aid

Networking Support Function 5: Partnerships and strategic alliances (activities)

- Identification of needs for and constraints to implementation of effective inter- and intra-regional innovation systems approaches
- Development and implementation of mechanisms for exchange of information on learning experiences
- Identification of actors along value chains from producer to consumer
- Creation of mechanisms for sharing experiences of successful upscaling of new approaches
- Resource mobilisation for facilitating SRO dialogue on innovation approaches

Collectively these Networking Support Functions will deliver the stated *Results*.

The ongoing FARA projects were coherent with these Networking Support Functions and contribute to strategic results. Some functions will require additional effort (new projects and investments) to achieve the intended results.

The Strategic Plan indicated compliance with the following FARA core principles:

- Promotion of excellence
- Compliance with the Principle of Subsidiarity
- Delivery of results and accountability for that to stakeholders
- Participation through the use of participatory approaches

It incorporated attention to the following cross-cutting issues:

- Pro-poor and growth-oriented
- Innovation systems approach
- Gender
- HIV/AIDS
- Environmental sustainability

Compliance with FAAP principles.

Dr Jones ended by stating '*Together, we can accomplish this ambitious agenda. In fact, only together, can we accomplish this ambitious agenda.*'

Changes in the FARA Constitution and Governance Manual

Dr Jones presented proposed changes to FARA's Constitution and Governance Manual based on recommendations by the Joint External Evaluation (JEE) and the External Programme and Management Review (EPMR) for consideration by the General Assembly.

1. FARA should *redefine its vision, mission, strategic priorities and a unifying and coherent strategy statement which guides and synergizes all its functions at continental level.*

Vision: 'Reduced poverty in Africa as a result of sustainable broad-based agricultural growth and improved livelihoods, particularly of smallholder and pastoral enterprises'

Mission: 'Creation of broad-based improvements in agricultural productivity, competitiveness and markets by supporting Africa's sub-regional organizations in strengthening capacity for agricultural innovation.'

2. The interval between General Assembly meetings be increased to *three years due to the cost and very short interval for implementation of recommendations.* The GA is to rotate among sub-regions including North Africa.
3. Harmonizing the structure, content, procedure and timing SROs' General Assembly so that they can feed into the FARA GA better.
4. The current term of office for FARA's Executive Committee members be increased from two to three years but these should not be renewable.
5. The Executive Committee should meet twice every year in the first and fourth quarters.
6. The FARA and SRO Executive Secretaries should be ex-officio members of the FARA Executive Committee with full voting rights. The SRO representatives should be full members.
7. The African Union should be invited to have representatives on the Committee.
8. The term of office for the Executive Secretary be extended from four to five years, and be renewable.
9. The General Assembly was asked to approve the creation of the position of Deputy Executive Secretary (Programmes) as recommended by the reviews.
10. In order to bring the title of FARA's governing body in line with its actual functions it was proposed that the FARA Executive Committee be re-designated as the FARA Executive Board. It would follow from this that the title of Executive Secretary be changed to Executive Director.

It was proposed that, in addition to French and English, FARA should adopt the other two official languages of the African Union, i.e., Arabic and Portuguese.

By a show of hands delegates endorsed the above changes be integrated appropriately into the FARA constitution and governance manual.

Election of members of the Executive Committee

Chairperson

Dr Seyfu Ketema, Executive Secretary, ASARECA, speaking from the floor, proposed the election of Dr Dennis Kyetere, Director General of Uganda's National Agricultural Research

Organisation (NARO), as the next chair of FARA's Executive Committee. In support of his proposal, Dr Ketema noted that Dr Kyetere was the first to identify a major gene that confers tolerance to the destructive maize streak virus, and that he has also led different research projects at NARO.

Dr Kyetere's appointment as the Chair of FARA's Executive Committee was approved by acclamation.

Members

The following unopposed nominations for the other Executive Committee membership were submitted to the meeting:

Tiemoko Yo (Vice-Chairperson); Lucy Muchoki (Private Sector); Sylvie Mbog (NGOs and Foundations); Papa Seck (Scientific Partners); Frank Kufakwandi (ex-officio, Development Partners); Desire Porquet (Farmers' Organisations); Seyfu Ketema (ASARECA); Paco Sereme (CORAF/WECARD); Margaret Nyirenda (SADC/FANR); Amor Chermiti (North Africa); Adnan Gibriel (AARINENA); Monty Jones (ES, FARA)

These nominations were approved by the General Assembly.

Valedictory Speech of the FARA Chairperson

Mme Nduli Njabulo in handing over of the chair recorded her appreciation for the opportunity she had enjoyed to be able to serve Africa through the Executive Committee of FARA. She believed in FARA's mandate and was proud of what had been achieved. She thanked the members of the Executive Committee and the Executive Secretary for the support that they had given her during her term as their Chairperson. She commended the staff of the Secretariat for their dedicated service. She congratulated the FARA stakeholders for their achievements and was confident that they would go on to greater achievements in the future.

Closing of the Business Session

Dr Jones thanked the outgoing Chairperson, Mme Nduli Njabulo, for her dedication and tireless work for FARA and for the effective leadership that she had given to the Executive Committee and the Secretariat.

Closing remarks were made by Dr Papa Seck, Dr Paco Sereme, Mr Cris Muyunda, Dr Richard Mkandawire, Ms Janine Cocker. Each of them representing different categories of stakeholders noted the progress that FARA had made that was reflected in the success of the General Assembly, which they had found most informative and collegial. Ms Judith Francis on behalf of CTA, RUFORUM and FARA announced the launching of the competition 'Women and Youth in Science', to be awarded in the next General Assembly.

The incoming Chairperson, Dr Kyetere thanked FARA's stakeholders for their confidence in him and, noting his commitment to FARA's mandate, he assured them that he would do his best to ensure that FARA achieves its goals and objectives.

Dr Paco Sereme, noting that by rotation the next General Assembly should be held in the CORAF/WECARD sub-region, informed the Assembly that he had received indications that the government of Burkina Faso would be pleased to host the next Assembly. This offer was approved by acclamation.

Acronyms and Abbreviations

AARINENA	Association of Agricultural Research Institutions in the Near East and North Africa
AATF	African Agricultural Technology Foundation
ABBI	African Biotechnology and Biosafety Initiative
ABD	Agricultural Biodiversity
ABIA	Agricultural Biodiversity Initiative for Africa
ACE	African Commodity Exchange
AET	Agricultural Education and Training
AFAAS	African Forum for Agricultural Advisory Service
ALIVE	All Life In Viable Environment
ANAFE	African Network for Agroforestry Education
AR4D	Agricultural Research for Development
ARCIK	African Resource Centre for Indigenous Knowledge
ARD	Agricultural Research for Development (in Europe)
ASARECA	Association of Strengthening Agricultural Research in Eastern and Central Africa
ATM	Automated Teller Machine
AU-DREA	African Union Department of Rural Economy and Agriculture
AU-IBAR	African Union - Inter-African Bureau for Animal Resources
BASIC	Building Africa's Scientific and Institutional Capacity
CAADP	Comprehensive Africa Agriculture Development Programme
CAHW	Community Animal Health Workers
CBD	Convention on Biodiversity
CECIK	Centre for Cosmovisions and Indigenous Knowledge
CEFIKS	Centre for Indigenous Knowledge Systems
CGIAR	Consultative Group on International Agricultural Research
CGS	Competitive Grants System
CIKFIM	Centre for Indigenous Knowledge in Farm and Infrastructure
COP9	9th Conference of the Parties to the Convention on Biological Diversity
CORAF/WECARD	Conseil Ouest et Centre Africain pour la Recherche et le Développement Agricoles/West and Central African Council for Agricultural Research and Development
CSO	Civil society organisation
CTA	Centre Technique de Coopération Agricole et Rurale
DONATA	Dissemination of New Agricultural Technologies in Africa
DVS	Department of Veterinary Services
EAFF	Eastern Africa Farmers Federation
ECOWAS	Economic Community of West African States
EFARD	European Forum on Agricultural Research for Development
EPP	Environmental Programme Plan

FAAP	Framework for African Agricultural Productivity
FAD	Fund for Agricultural Development
FAO	Food and Agriculture Organization (United Nations)
FARA ExCo	Forum for Agricultural Research in Africa Executive Committee
FARPAN	Food, Agriculture and Natural Resources Policy Analysis Network
GFAR	Global Forum for Agricultural Research
GlobalHort	Global Horticulture Initiative
GMO	Genetically modified organism
HPAI	Highly Pathogenic Avian Influenza
IARC	International Agricultural Research Centres
ICARDA	International Center for Agricultural Research in the Dry Areas
ICRAF	World Agroforestry Centre (formerly International Centre for Research in Agroforestry)
ICM	Integrated Communications Management
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics
ICSU-ISTS-TWAS	International Council for Science-Initiative on Science and Technology for Sustainability-The Academy of Sciences for the Developing World
ICT	Information and Communications Technology
IFAD	International Fund for Agricultural Development
IFAP	International Federation of Agricultural Producers
IFPRI	International Food Policy Research Institute
IGC	Intergovernmental Committee on Intellectual Property & Genetic Resources, Traditional Knowledge & Folklore
IITA	International Institute of Tropical Agriculture
IK	Indigenous Knowledge
IKS	Indigenous Knowledge Systems
ILRI	International Livestock Research Institute
INERA	The Institut National Pour l'Etude et la Recherche Agronomiques
IPR	Intellectual Property Rights
ITDG	Practical Action (formerly Intermediate Technology Development Group)
KENRIK	Kenya Resource Centre for Indigenous Knowledge
KVB	Kenya Veterinary Board
MARECIK	Masai Resource Centre for Indigenous Knowledge
MDG	Millennium Development Goal
MOP4	Meeting of the Parties to the Cartagena Protocol on Biosafety
NAADS	National Agricultural Advisory Services (Uganda)
NAPCI	NEPAD Pan African Cassava Initiative
NARI	National Agricultural Research Institute
NARO	National Agricultural Research Organisation of Uganda
NARS	National Agricultural Research System
NEPAD	New Partnership for Africa's Development

OIE	Office Internationale des Épizooties (International Office of Epizootics)
OSR	Organisations sous régionales
PAEPARD	Platform for African-European Partnership on Agricultural Research for Development
PLS	Pilot Learning Sites
PROLINNOVA	Promoting Local Innovation
PROPAC	Platform of Central African Peasant Organisations
PRRI	Public Research and Regulation Initiative
RAILS	Regional Agricultural Information and Learning System
REC	Regional Economic Community
RIU	Research Into Use
ROPPA	Réseau des Organisations Paysannes et de Producteurs de l’Afrique de l’Ouest (Network of Farmers and Producers Organisations of West Africa)
RUFORUM	Regional Universities Forum for Capacity Building in Agriculture
SACAU	Southern African Confederation of Agricultural Unions
SADC	Southern African Development Community
SADC-FANR	Southern African Development Community - Food, Agriculture and Natural Resources Directorate
SADC-MAPP	Southern African Development Community-Multi-Country Agricultural Productivity. Programme
SAFGRAD	Semi-Arid Food Grains Research and Development
SCARDA	Strengthening Capacity for Agricultural Research in Africa
SRO	Sub-Regional Organisation
SSA	Sub-Saharan Africa
SSA CP	Sub-Saharan Africa Challenge Program
SSA NAAS	Sub-Saharan Africa National Agricultural Advisory Services
SSA-NGO	Sub-Saharan Africa - Non-Governmental Organisations
STI	Science, Technology & Innovation
Tech-MODE	Technology-Mediated Open and Distance Education
TF	Task Force
TK	Traditional Knowledge
TKDL	Traditional Knowledge Digital Library
UNICEF	United Nations Children’s Fund (formerly United Nations International Children’s Emergency Fund)
WARDA	Africa Rice Centre (formerly West Africa Rice Development Association)
WIPO	World Intellectual Property Organisation
WHO	World Health Organisation
ZIRCIK	Zimbabwe Resource Centre for Indigenous Knowledge

About FARA

FARA is the Forum for Agricultural Research in Africa, the apex organization bringing together and forming coalitions of major stakeholders in agricultural research and development in Africa.

FARA is the technical arm of the African Union Commission (AUC) on rural economy and agricultural development and the lead agency of the AU's New Partnership for Africa's Development (NEPAD) to implement the fourth pillar of Comprehensive African Agricultural Development Programme (CAADP), involving agricultural research, technology dissemination and uptake.

FARA's vision: reduced poverty in Africa as a result of sustainable broad-based agricultural **growth and improved livelihoods, particularly of smallholder and pastoral enterprises.**

FARA's mission: creation of broad-based improvements in agricultural productivity, competitiveness and markets by supporting Africa's sub-regional organizations in strengthening capacity for agricultural innovation.

FARA's Value Proposition: to provide a strategic platform to foster continental and global networking that reinforces the capacities of Africa's national agricultural research systems and sub-regional organizations.

FARA will make this contribution by achieving its *Specific Objective* of **sustainable improvements to broad-based agricultural productivity, competitiveness and markets.**

Key to this is the delivery of five *Results*, which respond to the priorities expressed by FARA's clients. These are:

1. Establishment of appropriate institutional and organizational arrangements for regional agricultural research and development.
2. Broad-based stakeholders provided access to the knowledge and technology necessary for innovation.
3. Development of strategic decision-making options for policy, institutions and markets.
4. Development of human and institutional capacity for innovation.
5. Support provided for platforms for agricultural innovation.

FARA will deliver these results through the provision of networking support to the SROs, i.e.,

1. **Advocacy and resource mobilization**
2. **Access to knowledge and technologies**
3. **Regional policies and markets**
4. **Capacity strengthening**
5. **Partnerships and strategic alliances**

FARA's major donors are The African Development Bank, The Canadian International Development Agency, European Commission, the Governments of the Netherlands, United Kingdom, Italy, Ireland, Germany and France, the Consultative Group on International Agricultural Research, the Rockefeller Foundation, Bill and Melinda Gates Foundation, the World Bank, and the United States of America Agency for International Development.



Some events at the 4th FARA General Assembly, Sandton Convention Centre,
Johannesburg, 10-16 June 2007



*Njabulo Nduli
FARA Chairperson*



*Shadrack Moephuli
Director General, ARC*



*Richard Mkandawire
NEPAD Agriculture Advisor*



*Monty Jones
FARA Executive
Director*



*Marina Puccioni
EIARD Chair*



*FARA GA provided a good opportunity for networking among ARD actors including government officials
and leaders of development agencies*



Dignitaries at the 4th FARA General Assembly.



*Ministers getting first hand information on
collaboration between UK DFID's Research into Use
program together with NEPAD.*

A truly African agenda for agricultural research and technology

New visions, priorities and directions for African agriculture emerge from these Proceedings of the 4th Forum for Agricultural Research in Africa General Assembly, Sandton Convention Centre, Johannesburg, 10-16 June 2007.

The old research and development extension arrangements of 20-30 years ago are being rapidly discarded. Africa's science and technology institutions are repositioning themselves—guided by consumer demand—to help farmers manage risk and partner with the private sector.

Over 700 delegates from African and non-African institutions, not only those involved in agricultural research and development, but from civil society, farmer organisations and the private sector, gathered to debate and champion a truly African agenda for agricultural research and technology.

Africans showed that they are now taking the baton from the donor community in agricultural development initiatives for the future prosperity of Africa.

Anyone with any interest in or any connection to agricultural development in Africa should read these Proceedings. The message comes through loud and clear that huge steps have been made since FARA was set up in 2002, to meet the challenges ahead.

Those with an interest in African agriculture will be eagerly looking forward to the 5th Forum to be held in Burkina Faso in 2010.

www.fara-africa.org



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