



International Association of Agricultural Information Specialists

Report of the
Second Conference of the International Association of
Agricultural Information Specialists (IAALD) - Africa Chapter



M-Plaza Hotel
Accra, Ghana
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**Supporting organizations and partners include: CTA, FARA, FAO, CSIR, IAALD, ITOCA,
CABI and AgEcon Search**

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List of Acronyms

AGORA	Access to Global Online Research in Agriculture
AGRIS	International Information System for the Agricultural Sciences and Technology
AR&D	Agricultural Research and Development
ASARECA	Association for Strengthening Agricultural Research in Eastern and Central Africa
CAADP	Comprehensive Agenda for African Agricultural Development
CABI	CAB International
CARBAP	Centre Africain de Recherches en Bananiers et Plantains
CIARD	Coherence in Information for Agricultural Research for Development
CGIAR	Consultative Group on International Agricultural Research
CNRA	Centre National de Recherche Agronomique
CORAF/ WECARD	Conseil Ouest et Centre Africain pour la Recherche et le Developpment Agencies/West and Central African Council for Agricultural Research and Development
CSIR	Council for Scientific and Industrial Research
CTA	Technical Centre for Agricultural and Rural Cooperation
DATAD	The Database of African Theses and Dissertations
DFID	Department for International Development, UK
FAAP	Framework for African Agriculture Productivity
FANR	Food, Agriculture and Natural Resources
FAO	Food and Agriculture Organization of the United Nations
FARA	Forum for Agricultural Research in Africa
GFAR	Global Forum for Agricultural Research
HINARI	Health Internet work Access Research Initiative
IAALD	International Association of Agricultural Information Specialists
ICART	Implementation and Coordination of Agricultural Research and Training
ICM	Information and Communication Management
ICT	Information and Communication Technology
IDRC	International Development Research Centre
IMARK	Information Management Resource Kit
INSTI	Institute for Scientific and Technological Information
IR	Institutional Repositories
ITOCA	Information Training and Outreach Center for Africa
KAINet	Kenya Agricultural Information Network
KARI	Kenya Agricultural Research Institute
NAADS	National Agricultural Advisory Services
NARS	National Agricultural Research System
OARE	Online Access to Research in the Environment
PPP	Public-Private Partnership
RAILS	Regional Agricultural Information Learning Systems
RAIN	Regional Agricultural Information Network
SADC	Southern Africa Development Community
TEEAL	The Essential Electronic Agricultural Library
WAICENT	World Agricultural Information Centre
WARDA	West Africa Rice Development Association

1.0 Background

Africa's research outputs are usually disseminated through two broad mechanisms. These are as (i) publications in the world's scientific peer-reviewed learned journals and as (ii) 'grey literature' (i.e. unpublished or self-published information and knowledge resources such as research reports, theses and dissertations, seminar and conference papers) generated by research and academic institutions. The continent is also beginning to see researchers 'publishing' or communicating their works directly on the web, through blogs, wikis, etc.

But regrettably, much of the scientific research outputs from Africa is in the form of 'grey literature' documents which are produced in limited numbers or sometimes made available on various web sites, with limited circulation and visibility even within the institutions where they are produced. Consequently, much of this important literature is not only inadequately documented, but also there are no national or regional databases that one can use to have access to them.

In addition, the very few local journals that are published regularly are often poorly distributed and lack visibility. As a result, very useful and valuable scientific and technical information and knowledge remains unexploited, and in some cases lost forever. Thus, from the point of view of the global scientific community, very little research outputs from Africa find their way into the world's well-established commercial international databases. However, in recent times, with the implementation of the African Journals Online (AJOL) initiative the situation is slowly improving.

But the rate of this change can be increased many times if research organizations on the continent put in place policies and strategies to facilitate the management (i.e. capture, process, storage and dissemination) of digital research outputs. This will enable them to exploit the huge potentials that new developments such as 'Open Access Initiative' and 'Open Archives Initiative' have for opening up and enhancing the visibility of the outputs of research from Africa.

Open Access/Archives approaches promote universal unrestricted free access to full-text scholarly materials and scientific research via the internet, using interoperable standards that aim to facilitate the efficient dissemination of, and access to, content. Fortunately, the modern information and communication technologies (ICTs) provide us with the infrastructural means to capture, secure and share such valuable items of intellectual capital through the development and management of databases and institutional repositories (IRs).

In Africa, the development and management of/and opening access to digital-based agricultural scientific information and knowledge can enhance accessibility to these resources for the benefit of users as well as facilitating the sharing of knowledge by scientists on the continent with the global scientific community. Therefore, the development of IRs, that are open access archives, accessed via the Internet, extranets and intranets, could go a long way in increasing the visibility, accessibility, usability and impact of scientific research outputs from Africa, and could provide raw materials needed for research and development of most countries.

Unfortunately, the scientific community, research policy makers and to some extent information/knowledge management specialists have not enthusiastically embraced Open Access/Archives approaches due to a number of reasons. Some of these reasons are (i) lack of clear understanding of the concepts and principles of open access/archives initiatives, (ii) a general concern based on the history of exploitation of indigenous knowledge from Africa by the West

and (iii) the absence of a culture of information/knowledge sharing within research and academic institutions on the continent,

As a result, IRs and Open Access Archives are not yet common features of the African digital scientific information environment. The continent, therefore, lags far behind other continents in the number of open access IRs and open access journals in spite of the huge potential presented by these initiatives to open up access to the continents' information resources.

2.0 Introduction

To address these concerns, the IAALD held its second Africa Conference from 15th to 17th July 2009 at M Plaza Hotel in Accra, Ghana on the theme - *Towards Opening Access to Information & Knowledge in the Agricultural Sciences and Technology in Africa*. The Conference was preceded by pre-conference events (i.e. meetings, workshops and seminars) which were held from the 8th to 14th July 2009.

2.1 Purpose and Objectives

The purpose of the conference was to initiate meaningful discussion and commitments to actions around opening access to information and knowledge in agricultural sciences and technology generated in public research and academic institutions in Africa.

The specific objectives were:

- To build awareness of the importance of opening access to agricultural information and knowledge in Africa among key stakeholders, i.e. research policy makers, agricultural research scientists, authors, information professionals, information users, etc..
- To share experiences, information and lessons learned about Open Access/Archives initiatives and projects being undertaken in the agricultural sciences and technology inside and outside the continent.
- To develop an advocacy strategy for opening access to information and knowledge in agricultural sciences and technology in Africa to be implemented by IAALD Africa Chapter, its members and other partners

2.2 Conference Sub-themes

The Conference covered the following sub-themes:

- Access and dissemination of knowledge in agricultural sciences and technology in Africa – mapping the landscape, major challenges.
- Opening access to publicly funded research – views from research scientists, policy makers, development partners/funders of research and information professionals, and experiences and lessons from the North.

- Intellectual Property Rights/Copyright and Opening Access to knowledge in agricultural sciences and technology.
- Open Access initiatives to knowledge in agricultural sciences and technology in Africa: institutional repositories, Open Access Archives, Open Access Journals, electronic theses and dissertations, networks for information and knowledge exchange in agricultural sciences and technology, etc.
- Advocating for opening access to knowledge in agricultural sciences and technology in Africa – the way forward.

2.3 Opening Session

The conference was opened by the Honorable Sherry Ayitey, Ghana's Minister for Environment, Science and Technology on 15th July 2009. Dr. Monty Jones, Executive Director of the Forum for Agricultural Research in Africa (FARA) delivered the keynote address at the opening ceremony.

The Director-General, Council for Scientific and Industrial Research (CSIR) in Ghana, Dr. A. B. Salifu, IAALD Africa Chapter's President, Dr. Justin Chisenga, Mr. Musa Mbenga, representing the Food and Agricultural Organization of the United Nations (FAO) and Mr. Kevin Painting, representing the Technical Centre for Agricultural and Rural Cooperation (CTA), also delivered statements at the Opening Session.

2.4 Sponsors and Partners

The Conference was made possible with support from the Technical Centre for Agricultural and Rural Cooperation (CTA), the Forum for Agricultural Research in Africa (FARA), the Food and Agriculture Organization of the United Nations (FAO), the Council for Scientific and Industrial Research (CSIR) in Ghana, the International Association of Agricultural Information Specialists (IAALD), the Coherence in Information for Agricultural Research for Development (CIARD) initiative, the Information Training and Outreach Centre for Africa (ITOCA), CAB International and AgEcon Search.

2.5 Conference Basic Statistics

The conference brought together 103 individuals from 35 countries. These included agricultural information specialists, information and communication professionals, researchers, policy makers, farmers, representatives of farmer organizations, private sector players and representatives of development partners actively involved in agricultural research for development, among others.

In addition, the conference had:

- Five pre-conference meetings, seminars, etc.
- 12 PowerPoint presentations of which eight were based on peer-reviewed papers to be published in a special issue of the *Agricultural Information Worldwide Journal*;
- Three panel discussions; and
- Two special sessions.

3.0 Pre-Conference Workshops

Five pre-conference events were held from the 8th to 14th July 2009. The following sections provide the objectives, summaries of proceedings and outputs of these events.

3.1 Training of Trainers Workshop on Electronic Databases

A Training of Trainers workshop on four major electronic databases, HINARI, AGORA, OARE and TEEAL was held at CSIR-INSTI from 8th – 10th July 2009 for thirty officials from agricultural and health-based institutions. These databases provide low-income countries throughout the world, especially Africa, with free or low cost access to the world's journal literature in agriculture, health and the environment.

Thus for the first time in history, researchers in eligible countries can have access to the same kind of information as their peers in more economically-developed countries and participate in the global research agenda. These initiatives represent an important public-private partnership involving commercial and academic publishers, universities, and United Nations agencies.

At the end of the workshop, participants acquired knowledge and skills to train their colleagues in their respective countries on how to access the above mentioned electronic databases. The expected outcome (i.e. short term effect) is that researchers, policy-makers, medical doctors, educators/lecturers, librarians and extension specialists in these countries can on their own access high quality, relevant and timely information on agriculture, health and the environment via the Internet, CD-ROM and external hard disk.

The workshop was co-sponsored by Cornell University-Mann Library, PROTA Foundation in collaboration with the United Nations World Health Organization (WHO), Food Agricultural Organization of the United Nations (FAO), and run by ITOCA of South Africa.

3.2 FARA Regional Agricultural Information and Learning System Meeting (RAILS)

The Forum for Agricultural Research in Africa (FARA) through its Regional Agricultural Information and Learning Systems (RAILS) Programme hosted a pre-conference event under the theme "*Opening access to agricultural information and knowledge: Sharing experiences of the National Agricultural Research Stations (NARS)*" from the 12th – 13th July 2009 at the FARA Secretariat. It was attended by about 40 participants from FARA Sub-regional organizations - ASARECA, CORAF/WECARD and SADC/FANR as well as RAILS national focal points.

The purpose of the event was to provide an opportunity for Information and Knowledge Management Specialists who are members of the RAILS network, to present and discuss their approaches to information exchange and learning as well as feedback on the use and application of e-RAILS systems. The workshop methodology comprised both discussion panels and breakout groups. The session discussions focused on four key elements:

- Advocacy for increased investments in ICT
- Finding synergies and establishing cohesive information systems
- Web tools for information exchange
- Networking and establishment of Learning Teams

The RAILS pre-conference event was part of the series of steps being undertaken to build the national learning teams to facilitate information and knowledge sharing within the region. It was a springboard for improving collaboration between the RAILS stakeholders as well as helping in planning of national interventions.

The following activities were undertaken:

- Sharing of experiences on establishment of teams by national focal points.
- Identifying own capacity building needs at national and institutional level by participants.
- Official launching of the e-RAILS¹ platform (<http://www.erails.net/>) by Dr. Monty Jones, the FARA Executive Director. The launch was followed by a hands-on training session on how to use the system.

From these activities, the following outputs were achieved:

- Acquisition of knowledge and information by participants on how to populate the e-RAILS platform or manage a dynamic network that is regularly exchanging ideas related to agricultural research and development (AR&D).
- Identification of own capacity building needs mainly in the areas of the use of ICT and network management skills by participants
- Acquisition of knowledge and skills by participants on how to use RAILS.
- Identification of issues (i.e. on implementing advocacy, monitoring and evaluation; incorporating learning in team synergies, harnessing support from national governments and building capacity of information managers) for RAILS to take forward.

3.3 Seminar on Copyright Management and Institutional Repositories

The seminar on *Copyright and Institutional Repositories* was held on 14th July 2009 and was organized by the CSIR-INSTI. It was attended by 16 participants made up of research scientists, policy-decision makers, agricultural information managers and scientific secretaries from pilot institutions on the Ghana AGRIS Pilot Project.

The main objectives of the seminar were:

- To sensitize participants on copyright issues that may affect provision of access to information resources in an institutional repository
- To introduce participants to SHERPA-RoMEO facilities and Creative Commons Licensing system.

¹ e-RAILS is an African portal on agriculture which allows one to create an account and publish information about their projects and activities.

The seminar focused on copyright issues and management in an Institutional Repository environment and a case study addressing Open Access and Institutional Repositories at the CSIR in South Africa, and Creative Commons licensing systems.

3.4 Seminar on National Capacity Building for the Ghana Agricultural Information Network System (GAINS)

ITOCA and CSIR-INSTI organized a half-day sensitization seminar on The Essential Electronic Agricultural Library – TEEAL targeting the GAINS group that was attending the seminar on Copyright management and Institutional Repositories. Its objective was to introduce TEEAL to the participants and also showcase the newly launched LanTEEAL 2.0 to those who are still using the old version of the database. The seminar also included a presentation and hands-on sessions that covered the *WHY – TEEAL?* Participants were also taken through how to use the database to retrieve articles.

TEEAL is a project established by Mann Library Cornell University (USA) to give agricultural scientists in 100 low-income countries better access to current research outputs published in high-quality journals. Primary clients are universities, national agricultural research organizations and government ministries. The objective of the project is to provide students, faculty members, researchers and policymakers with the kind of information they need to address important agricultural and rural development challenges in their countries.

3.5 CIARD Africa Advocacy Consultation

FAO, in collaboration with FARA, GFAR, CGIAR, CABI and IAALD, organized a one-day seminar on *Coherence in Information for Agricultural Research for Development (CIARD)* for stakeholders in Africa on 14th July 2009 at FARA Secretariat. Thirty-four participants from 28 countries in sub-Saharan Africa and ten representatives of key CIARD partner institutions took part in the seminar. The purpose of the seminar was to raise awareness of, and secure collaborative support for the CIARD initiative (www.ciard.net) among selected senior information/knowledge specialists from agricultural research agencies and institutions in Africa. The CIARD initiative is working to make agricultural research information publicly available and accessible to all.

Among the sessions covered during the seminar were the following:

- *The Coherence Agenda* - during which an initial presentation of key aspects of the CIARD initiative was made by FAO as a principal partner. The principal CIARD brochure, the Manifesto and the Principles were then discussed by five working groups using the World Café methodology, focusing on points for clarification and issues of understanding. Participants then circulated to view and discuss the outputs of the groups, and finally the groups' key observations were summarized in plenary.
- *The CIARD Checklist* - in which participants worked in five groups to analyse and discuss the draft CIARD Checklist, and then the findings of the working groups were presented in a plenary session
- *Achievement of CIARD Pathways: Peer Assist* - whose format comprised a Chat Show followed by Peer Assist. The Chat Show was hosted by Stephen Rudgard, with the guests being from the Kenya Agricultural Information Network (KAINet) and Joel Sam from the

Ghana Agricultural Information Network System (GAINS). Following this, participants were asked to attend two Peer Assist groups led by Rachel Rege and Joel Sam.

4.0 Highlights of the Main Conference

The Main Conference activities were held from 15th to 17th July 2009 at M Plaza Hotel, in Accra, Ghana. Mr. Clement Entsua-Mensah, University Librarian, University of Cape Coast, Cape Coast, Ghana, was the Conference Chairperson. In his opening remarks, he welcomed participants and gave a brief background on the history of the IAALD Africa Chapter. He also thanked the conference sponsors and partners.

4.1. Plenary Session 1: Access and Dissemination of Knowledge in Agricultural Sciences and Technology – Mapping the Landscape and Major Challenges

The Conference started with the First Plenary Session moderated by Mr. Gracian Chimwaza, Executive Director of ITOCA. The following presentations were made at the Session:

- *Connecting people to catalyze African agricultural innovations: Regional Agricultural Information and Learning Systems (RAILS)* by Ms. Myra Wopereis-Pura, Director- Access to Knowledge and Technologies, Forum for Agricultural Research in Africa (FARA), Ghana;
- *Gestion et diffusion de l'information scientifique et technique dans les institutions de recherche agricole et agroalimentaire du Sénégal: les acquis majeurs obtenus dans le cadre du projet FAC/IST* by Mr. Massamba Cissé, Agricultural Information Specialist, Institut Sénégalais de Recherches agricoles (ISRA), Sénégal; and
- *Facilitation of information sharing on agricultural R&D in the SADC region: experiences and experiments!* by Mr. Krishan J. Bheenick, Regional Information, Communication and Training Officer, Implementation and Coordination of Agricultural Research and Training (ICART) Project, SADC, Gaborone, Botswana.

The first presenter highlighted the activities being carried out by FARA in support of African agricultural innovations, with emphasis on the RAILS framework, within which the following activities are being undertaken:

- Advocacy to encourage increased investment in agricultural information systems
- Capacity strengthening geared towards access to information and knowledge
- Facilitating synergies and coherence among various initiatives
- Facilitating an African platform on agricultural information and knowledge exchange

He also highlighted components of e-RAILS, a platform, for communicating agricultural innovations.

The second presentation focused on the activities of the Project – “Appui aux systèmes d’information et de communication scientifique sénégalais” which was financed by the French Cooperation. The presentation gave an overview of the phases and major components of the project and highlighted the achievements in terms of management and dissemination of scientific and technical information (STI) within the National Agricultural Research System (NARS).

The third presenter gave an account of the background of the ICART project from its inception, its aims, and intervention areas, which among others include strengthening the capacity of SADC-FANR to coordinate AR&D and Training and establishment of an information system on AR&D. The presentation also outlined the project’s regional partners, sponsors, challenges at regional and national levels, successes and the current activities geared towards the establishment and consolidation of the SADC network. Activities carried out towards the development of the SADC Agricultural Information Management Systems were also outlined.

During the discussions that followed the presentations, participants raised questions and made comments centering on information repackaging for proper dissemination as well as whether information delivered to end users are understood and how the situation of reaching out to potential beneficiaries could be addressed.

Many examples of information repackaging were highlighted by the participants and these included use of local radio programs in Cameroon, repackaging information in booklets by FARA, digital doorways in South Africa, and the Question and Answer voucher services in Uganda. The use of “barefoot librarians” for information dissemination was also suggested based on its importance for reaching a wider community.

The key issues/points raised were:

- The participants commented on the need to get the priorities right when investing in information dissemination projects/activities in order to achieve the defined objectives.
- It was observed that there were several initiatives going on regarding agricultural information management.
- There was a need to have a duo system of communication between farmers and information providers so that each party learns from the other to ensure proper provision of relevant information that can be put to good use and
- The need to reach more people was discussed since a greater part of the scientific and farming communities in all African countries never gets the agricultural information they may need due to poor infrastructure and illiteracy.

4.2. Plenary Session 2: Conference Official Opening Session

At the official opening session of the Second IAALD Africa Chapter conference, Dr. A. B. Salifu, Director-General, Council for Scientific and Industrial Research (CSIR) in Ghana, Dr. Justin Chisenga, President of the IAALD Africa, Mr. Musa Mbenga, on behalf of Ms. Maria Helena Semedo, FAO Regional Representative for Africa, and Mr. Kevin Painting, representing Dr. Hansjörg Neun, the Director of the Technical Centre for Agricultural and Rural Cooperation (CTA) made statements.

Statement from CSIR

In his statement, Dr. Salifu, who also chaired the Opening Session, said that knowledge creation and diffusion in the agricultural sciences should be seen as major drivers of innovation. He noted that good results-driven research goes hand-in hand with access to relevant information, and that the involvement of agricultural communication specialists at the research project planning and execution stages is imperative in developing holistic publicity and public awareness initiatives to facilitate effective communication with all stakeholders in the agricultural section.

Statement from IAALD Africa Chapter

Dr. Chisenga in his statement said that the IAALD Africa Chapter was established on 26th May 2009 in Nairobi, Kenya, following the election of an Interim Executive Committee composed of individuals from Cameroon, Ghana, Kenya, Mozambique, Senegal, Sudan, Uganda and Zimbabwe.

He also outlined the vision and mission of the Chapter as being - "*Agricultural information and knowledge available for use at the finger tips of all agricultural actors in Africa*" and "*To support agricultural development and food security in Africa through the creation, management, sharing and exchange of information and knowledge*" respectively. In closing his statement, Dr. Chisenga thanked all the organizations that had sponsored the conference.

Statement from FAO

Mr. Musa Mbenga, in a statement read on behalf of the FAO Regional Representative for Africa, Ms. Maria Helena Semedo, said that the theme for the conference - *Towards Opening Access to Information & Knowledge in the Agricultural Sciences and Technology in Africa* – was very relevant to FAO's work and mandate.

He explained that agricultural research has great potential to increase food security, improve agricultural productivity, and enhance rural livelihoods in developing countries, and it is for these reasons that FAO has interest in initiatives that are looking at how to improve the management, visibility and accessibility of outputs of agricultural research.

Mr. Mbenga told the participants that the Organization supports initiatives such as the International Information System for the Agricultural Sciences and Technology (AGRIS), in which FAO has been involved for over 30 years, and CIARD which was launched in 2008. He said these initiatives were working towards enhancing the visibility and accessibility of outputs of agricultural research. He also called upon governments and agricultural research institutions to invest in national capacities and infrastructure in order to improve the visibility and accessibility to public domain agricultural information.

Statement from CTA

The CTA representative, Mr. Kevin Painting, in a statement read on behalf of the Director of CTA, Dr. Hansjörg Neun, indicated that CTA has over the years participated in, and supported

many IAALD activities, and looks to continue a positive and productive engagement with the association. In the statement, the CTA Director observed that the conference was taking place at a time of many interesting developments in the technical information sphere as well as on the international development front.

These developments include those based on mobile phone technology such as SMS-based information services which target the rural poor, provision of mobile financial services, and mobile extension services. In the view of the CTA Director, mobile phones and the services they offer are transforming lives in spite of a lack of basic infrastructure.

The statement of the CTA Director, also highlighted how the "information tsunami" unleashed by Google, blogs, wikis, Twitter and a host of other social media have changed profoundly the way information is being accessed and shared, and the economic opportunities offered by the new technologies.

Finally, Mr. Painting informed participants that CTA was collaborating with Cornell University in providing African, Caribbean and Pacific (ACP) universities and research organizations with access to full text database of peer reviewed journals on CD-ROMs under TEEAL programme by covering the initial subscription costs.

Keynote Address

The keynote address was delivered by Dr. Monty Jones, Executive Director of FARA. Dr. Jones gave a background of the status of agriculture in Africa. He outlined the contribution of agriculture to export, the gross domestic products (GDP), foreign exchange earnings and employment and indicated that African agriculture has not fared well in the past decades. Dr Jones, however, stressed that in spite of its poor performance, agriculture still remains a major contributor to the economies of African countries as they have the needed natural resources (land, water, forests).

The Executive Director noted that even though political leaders on the continent have made a commitment to invest at least 10% of their national budget in agriculture, agricultural production in Africa has been lagging behind those of other continents. He referred to 'The Comprehensive Agenda for African Agricultural Development (CAADP)' which has been outlined by the African Union as the vision for African agricultural development in achieving the millennium development goals.

On agricultural information systems and other tools, Dr Jones emphasized that now was the time to develop them. According to him, the major actors to achieve this include policy makers, farmer agricultural advisory services, and farmers' associations, market intermediaries, etc.

He also outlined the opportunities and role of information and knowledge among which were the establishment of information systems for monitoring market performance and measuring market failures, development of information systems to address food security issues, efficient marketing of agricultural products through information and telecommunication networks, provision of equitable access to new techniques for improving agricultural production, reduced food storage losses through more efficient distribution using ICT. He called upon all stakeholders to be doing advocacy in one way or the other and posed the following key questions in attaining opening access to publications through the use of ICT:

- Are we advocating to the right people and the right institutions?
- Do we have the right systems for the intended users?
- Do the users have the skills and infrastructure to access the Knowledge?
- Do we have the appropriate institutional policies?
- Do we have the platforms that practitioners need to share and learn?
- How do we build and how do we manage knowledge - among all the different actors?

Dr. Jones also highlighted the contribution of FARA through the Framework for African Agriculture Productivity (FAAP), an advocacy tool aimed at drawing the attention of African leaders to evolve and reform their agricultural institutions and services, invest more into agriculture and integrated capacity strengthening.

Dr Jones concluded his keynote address by arguing that open access to contribute to the transformation of African agricultural development, among others, must:

- catalyse innovations
- improve African knowledge management
- strengthen Africa's capacities to build its own capacities
- promote enabling policies
- facilitate access to markets.

Official Opening Statement

The Opening Speech was delivered by the Hon. Sherry Ayitey, Ghana's Minister for Environment, Science and Technology. She congratulated the African Chapter of IAALD for organizing the conference in Ghana and noted that governments all over Africa are endeavoring to make agricultural information available to farmers in order to foster development.

The Minister told participants that the Government of Ghana had pledged to invest in science and technology and that 2% of the Ghana Educational Trust Fund (GETFund) would be set aside to assist students who study science and technology subjects as part of efforts to encourage and foster a culture of science and technology in the country. Ms Ayitey emphasized that it was time for Africa scientists to patent their discoveries in science and technologies to ensure appropriate returns from them. She said that the government of Ghana would support policies that invested in basic and applied research to create new incentives for private innovation, promoting breakthrough in energy and medicine and improve education in mathematics and the sciences.

She reminded participants of the many challenges faced by countries in Africa including environmental degradation, extreme and persistent poverty, HIV/AIDS, inadequate portable water, weak and volatile economic growth, low capacity, high illiteracy rates, poor infrastructure and inadequate social services.

Ms Ayitey emphasized that if properly harnessed, science and technology could play a key role in helping Africa to overcome these challenges as access to information and knowledge generated by

scientific research, especially in the fields of medicine, environment, agriculture, climate change, and technology, could help to create stronger social, economic, and technical infrastructures that are essential in the development process on the continent.

Finally, before declaring the Conference officially opened the Minister called upon researchers and research institutions to contribute their quota to ensuring that outputs of research were available and accessible to all.

Key issues presented during the Opening Session were:

- It is high time Africa developed her agricultural management systems and other tools to make her agriculture more competitive on the global market.
- Open access can contribute to the transformation of African agricultural development by catalyzing innovation, strengthening African capacity to build capacity, etc.
- The Government of Ghana is committed to developing science and technology and has pledged to devote 2% of the GETFund to promote a culture of science and technology.
- The need for research institutes and scientists to patent scientific and technological innovations to ensure proper returns.

4.3. Plenary Session 3: Open Access to Publicly Funded Research – Views from Research Scientists, Policy Makers, Development Partners/Funders of Research, Users & Information Professionals

The session was chaired by Ms. Jacqueline Nyagahima, Head of Information and Communication, Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA), Uganda. It included two paper presentations and a panel discussion. Papers presented were:

- *Open access publishing: views of researchers in public agricultural research institutions in Zambia* by Davy Simumba, Principal Agricultural Research Officer, Zambia Agricultural Research Institute, Chilanga, Zambia and Dr. Justin Chisenga, Information management Specialist, FAO Regional Office for Africa, Accra
- *Fostering open access publishing in Tanzanian public universities: Policy makers' perspectives* by Frankwell Dulle, Senior Librarian, Sokoine University of Agriculture, Morogoro, Tanzania and M. K. Minishi-Majanja, Department of Information Science, University of South Africa, Pretoria, South Africa.

The Panel members for this session included:

- Davy Simumba, Principal Agricultural Research Officer, Zambia Agricultural Research Institute, Chilanga, Zambia
- Frankwell Dulle, Senior Librarian, Sokoine University of Agriculture, Morogoro, Tanzania;
- Dr. Paa-Nii T. Johnson, Acting Director, Council for Scientific and Industrial Research (CSIR)- Food Research Institute, Accra, Ghana
- Gladys Nyambura Kairu, Small scale farmer, Wangigi, Kenya
- Elizabeth Dodsworth, Global Director – Knowledge Management, CAB International, Wallingford, United Kingdom.

Summary of Paper Presentations

The presentation by Mr. Sumumba highlighted the findings of a study carried out in Zambia to explore and examine the views of agricultural research scientists on Open Access (OA). The main objective of the study was to determine whether there is support for Open Access among researchers in Zambia.

In the study, survey questionnaires were distributed to 67 researchers in three public funded research/academic institutions. Forty researchers (59.7%) completed the questionnaires. The results of the study showed that about 83% of the respondents supported the basic principle of Open Access, i.e. provision of barrier-free and cost-free access to research literature to all individuals interested in the literature and an overwhelming number of them (90%) indicated their willingness to publish in open access journals.

At least 68% of the respondents said that they would support policies by research institutes, the government and donor agencies funding research to have publications from research activities deposited in institutional repositories that are open access archives. These results were said to be very encouraging for open access initiatives in Zambia.

Mr. Dulle's presentation was based on the results of an investigation of the general awareness and usage of open access among 63 policy makers from six public universities in Tanzania. The findings revealed that most (90.5%) of the university policy makers have heard about open access in general terms but specific terms or initiatives are unknown.

However, it was generally acknowledged that access to and dissemination of scholarly content at their respective Universities is a problem and hence interventions/initiatives likely to stimulate adoption of open access, though absent, would be supported. The study recommended that information professionals should capitalise on the positive perspectives of the policy makers by establishing institutional repositories for wider dissemination of research findings in the country.

Panel Discussion

During the panel discussions following the presentations, it was noted that most researchers and scientists support Open Access and are making available their research outputs, especially conference papers, to be archived in institutional repositories. Researchers on the Panel noted that in Africa not much institutional support has been received in terms of 'policy support' in making agricultural research information available through Open Access.

Representatives of policy makers on the other hand indicated support for Open Access although they lamented that there would be limited funding for open access, as the initiatives are costly ventures. It was also noted that since researchers are mainly supported with public funds they are obliged to make the outputs of their R&D activities publicly available.

The need to use various approaches to disseminate agricultural information to different stakeholders was discussed and various experiences and scenarios were presented including the use of cell phones, fact sheets in simple language, community-based FM stations,

establishment/strengthening of research extension farmer linkages, publishing extension journal, opening telephone lines (e.g. 'Allo Ingénieur'), networking, etc.

The conference recommended that agricultural information specialists lobby for adoption of policies that mandate researchers to make available their research outputs as they are 'public goods'. Funding should be made available for the establishment and maintenance of institutional repositories. Researchers also have a mandate to help farmers through provision of user-friendly 'packaged research outputs'. Information specialists were challenged to develop localized farmer-researcher collaboration that will help farmers to increase productivity.

Key issues presented and discussed were that:

- Agricultural research institutions and universities should develop policies and strategies to promote Open Access to outputs of research.
- Farmer/Extension Officer/Researcher relationships should be strengthened through local strategies.
- Materials to be made through Open Access should be collected and re-packaged for the use of the farmers through various means (e.g. simplified reports, use of community radios, etc).
- Researchers noted that funding and intellectual property right issues are the challenges impeding making of available research outputs on Open Access.
- Information Specialists training is essential in addressing the lack of agricultural information by farmers.
- Challenges in Africa are varied and specific to countries; however, the use of IT and the Internet can enable more research outputs to be made available through Open Access.

4.4. Special Session 1: WEBAGRIS tools for agricultural metadata management

This session was organized by FAO WAICENT/Knowledge Exchange Facilitation Branch (KCEW), Rome, and facilitated by Stefka Kaloyanova, Information Systems Analyst, Food and Agriculture Organization, Rome, and Richard Kedemi, Systems Administrator, Kenya Agricultural Research Institute, Nairobi.

The session looked at the main features of WEBAGRIS and its usage in Africa. Specifically, the following were covered: WEBAGRIS Open access flow starting from data collection and cataloguing of documents and creating of Institutional Repository, ways of registration in Open Archives Initiative (OAI) registries for exposing of Repositories to Open Archives Initiative – Protocol for Metadata Harvesting (OAI-PMH) and a demonstration with examples on the Internet. The AGRIS harvester and services built on the top of the harvested data were demonstrated.

The presentation also included additional information on the AGRIS Network and FAO Online Catalogue (FAOBIB) as a model for making agricultural information more broadly available and the challenges it creates for established models of disseminating research results.

Richard Kedemi, System Administrator at Kenya Agricultural Research Institute (KARI), Kenya shared his experience with WEBAGRIS usage within the KAINet. He explained that KAINet was initiated in response to demands from the national and international communities to promote information exchange and access among stakeholders in the agricultural sector in Kenya. Four institutions participating in the KAINet have developed institutional repositories and these feed the metadata into the national repository (KAINet online repository) and KAINet feeds into the global AGRIS database hosted by FAO in Rome, Italy.

On WEBAGRIS, the System Administrator explained that it was adopted for the KAINet repository because most of the research work in Kenya had been captured on CDS/ISIS-based bibliographic databases and a suitable platform to migrate the data was needed. This required (i) a friendly tool for the repository, which, could also be customized into the look and feel of KAINet and (ii) the right kind of technical assistance to implement the system.

The key issues/points raised were:

- Concerns on whether WEBAGRIS will keep up with the fast paced technological changes.
- Concerns that FAO initiatives on developing institutional repositories of metadata and full-text documents were benefiting only some few pilot sites.
- How to train more people in building institutional repositories since under the FAO initiatives only a few individuals were being trained.
- Building institutional repositories requires a lot of time, and therefore it requires team work.

4.5. Plenary Session 4: Intellectual Property Rights and Open Access to Knowledge in Agricultural Sciences and Technology

This session was chaired by Mr. Poku Adusei, Doctoral Fellow at McGill, Canada and Lecturer in Intellectual Property Law at the Faculty of Law, University of Ghana. The session included two paper presentations and a panel discussion. The papers presented were:

- *Gestion de la propriété intellectuelle et accès libre aux résultats de la recherche/cas du CNRA* by Dr. Kédro Sidiki Diomandé, Directeur des innovations et des systèmes d'information/Chargé de la Propriété intellectuelle, Centre National de Recherche Agronomique (CNRA) Abidjan, Cote d'Ivoire
- *Juggling copyright and open access in the 21st century: A South African case study* by Siphethile Muswelanto, Professional: Institutional Repositories and Digitization Initiatives, Council for Scientific and Industrial Research (CSIR), Pretoria, South Africa; Adèle van der Merwe, Manager, Library and Information Curation and Preservation Services; and Martie van Deventer, Portfolio Manager, CSIR's Information Service, Pretoria, South Africa

The panel members included:

- Dr. Kedro Sidiki Diomandé, Directeur des innovations et des systèmes d'information/Chargé de la Propriété intellectuelle, Centre National de Recherche agronomique (CNRA) Abidjan, Cote d'Ivoire

- Ms. Siphethile Muswelanto, Professional: Institutional Repositories and Digitization Initiatives, Council for Scientific and Industrial Research (CSIR), Pretoria, South Africa
- Dr. Kwaku Ofose-Tenkorang, Senior Scientific Information Officer, Council for Scientific and Industrial Research (CSIR) Institute for Industrial Research, Accra, Ghana
- Dr. Charles Masango, Research Development Co-ordinator-Emerging Researcher Programme, Department of Research and Innovation, University of Cape Town, South Africa
- Hon. Kwame, Anyimadu-Antwi, MP – Asante Akim North Constituency, Ghana and Lecturer in Intellectual Property Law and Law of Contract, Faculty of Law, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana.

Summary of Paper Presentations

The presentation by Ms. Muswelanto focused on a case study of the Council for Scientific and Industrial Research (CSIR) in South Africa with emphasis on how the CSIR adheres to legal requirements while providing Open Access to research publications. She indicated that the CSIR makes extensive use of SHERPA-RoMEO facilities and has put in place a comprehensive document management workflow system which manages the reporting of all the organization's explicit intellectual outputs.

Dr. Diomande's presentation also focused on the mechanism that has been put in place by the Centre National de Recherche Agronomique (CNRA) in Cote d'Ivoire for the management of intellectual property rights relating to research outputs by scientists in the institution and the provision of access to research outputs.

Panel Discussion

Mr. Adusei highlighted the copyright environment whereby one had to think globally but act locally. It was stated that copyright is an aspect of intellectual property as established by the Berne Convention as the cornerstone of intellectual property legislation in various countries. Copyright allows for open access because authors allow their intellectual works to be shared through self-archiving and institutional repositories. A few open access initiatives were highlighted to support this view.

Panelists agreed that researchers often go the extra mile to create intellectual works and information users should respect their efforts. Challenges are sometimes at legal, economic and institutional levels and lack of cooperation among researchers and institutional users create problems in fair compensation to creators of knowledge. Intellectual property framework should be respected and complied with at all times so that researchers are encouraged to produce and publish more research. Overall, the main goal of all the efforts is to make agricultural research information and knowledge accessible to all.

Key issues/points raised were:

- Digitization and encryption of intellectual property works through institutional repositories sometimes do not strike a balance between information sharing and intellectual property rights owners.

- Patent law versus copyright law were discussed at length, pointing out that because creators of intellectual properties (works) are sometimes employed by institutions, their intellectual property rights rest with the employers but what was made clear was that intellectual property rights are automatic upon publishing and contractual obligations can be negotiated.
- Lack of appropriate institutional policies hamper the provision of access to information at the right time.
- Awareness creation of intellectual property rights to researchers and the public is important.
- Library policies versus “fair use” of intellectual property was touched on and librarians were advised to provide simplified access guides to cover their photocopy operations;
- A two-pronged approach was looked at whereby one would publish for promotion as well as for economic gain.
- It was indicated if researchers are involved from the onset in the development of institutional repositories they would feel part of the process and own the initiatives.
- Lawmakers should be sensitized to put effective and appropriate intellectual property policies and laws in place that are implementable so that they do not gather dust on the shelves.

4.6. Plenary Session 5: Opening Access to Knowledge in Agricultural Sciences and Technology: International, Regional, National and Institutional Initiatives

This session was chaired by Mr. Krishan J. Bheenick, Regional Information, Communication and Training Officer, Implementation and Coordination of Agricultural Research and Training (ICART) Project, SADC, Gaborone, Botswana.

The following five presentations were made at the session:

International and Regional Initiatives

- *Coherence in Information for Agricultural Research for Development (CIARD)* Initiative by Dr. Stephen Rudgard, Chief – WAICENT Outreach and Capacity Building, Food and Agriculture Organization (FAO), Rome, Italy
- *Database of African Theses and Dissertations (DATAD)* by Dr. Pascal Hoba, Head, Communication & Services, Association of African Universities, Accra, Ghana

Institutional Initiatives

- *Institutional repository and open access initiative to knowledge in agricultural sciences: the case of Botswana College of Agriculture* – Kebede Hundi Wordofa, IT Librarian, Botswana College of Agriculture, Gaborone, Botswana & Poloko Ntokwane-Oseafiana², Assistant Librarian, Botswana College of Agriculture, Gaborone, Botswana.

² Made the presentation at the conference

- *Enhancing access and exchange of agricultural information and knowledge in Kenya: the KARI experience*, by Rachel A. Rege, Assistant Director-Information and Documentation Services, Kenya Agricultural Research Institute (KARI), Nairobi, Kenya and Patrick Maina, Librarian, KARI; Richard Kedemi, System Administrator, KARI; and Peninah Mwangi, Librarian, KARI-National Agricultural Research Laboratories.
- *Initiatives sur le libre accès aux connaissances: base de données institutionnelles de l'Institut de Recherche pour le développement (IRD)* by Mamadou Samaké, Aide Documentaliste/Communicateur Multimédia, Institut de Recherche pour le développement, Ouagadougou, Burkina Faso.

Summary of the Presentations

The presentation on CIARD, by Dr. Rudgard, indicated that there are many initiatives towards opening access to knowledge in agricultural sciences and technology at different levels i.e. international, regional, national and institutional. As a result there was a need to establish a platform for coherence and improved collaboration at all levels for agricultural research and development, hence the formation of CIARD in 2008. The presentation further highlighted the CIARD manifesto, CIARD principles, CIARD checklist, CIARD pathways, the benefits to partners and partners' contributions. The following were outlined as being the CIARD's vision and objective:

- *CIARD vision* - "To make public domain agricultural research information and knowledge truly accessible to all"
- *CIARD objective* - To develop effective and coherent institutional approaches to sharing agricultural science and technology information based on common standards

Dr. Hoba's presentation on the Database of African Theses and Dissertations (DATAD) focused on the work being done by the Association of African Universities (AAU) towards the development of a database of African theses and dissertations. The objectives of DATAD are to:

- Contribute to the creation of an environment conducive to research and publication in Africa.
- Create capacity in African universities for the collection, management and dissemination of theses and dissertations electronically. The presentation also highlighted the state of scholarly communication in Africa
- Provide visibility and improved access to the work of African scholars, both within and outside of the continent.
- Facilitate the development of copyright procedures and regulations for the protection of the intellectual property rights of African university graduates and researchers;
- Provide support for other AAU programs

DATAD has about 100,000 records (abstract and some full text). Among the challenges facing DATAD were issues relating to the management of copyright and intellectual property, and getting full-text of thesis and dissertations into the database.

Ms. Ntokwane-Osefiana's presentation on the case from the Botswana College of Agriculture indicated that the Internet has made it easy to create digital collections and make them readily

accessible. She noted that academic and research institutions in developing countries generate an enormous amount of information but most of the information exists as 'grey literature' and is often difficult to collect, store, preserve and make it accessible to users. Besides, developing countries are facing barriers of accessing scholarly information due to financial constraints.

According to her, one way of overcoming the problem of access to information is by promoting open access (OA) and institutional repositories (IR). OA and IRs are indispensable for academic and research institutions in developing countries as access to adequate, timely and relevant information is imperative to improve research and development in the agricultural sector. She used the Botswana College of Agriculture Library's IR as a case study, and provided the lessons learned in establishing and running it.

Ms. Rege's presentation argued that public science and technology information is not easily or widely accessible and limits the impact of research on agricultural and rural development. She indicated that the Kenya Agricultural Information Network (KAINet) was established to ensure the development of institutional repositories to support availability and access to agricultural information in Kenya.

She highlighted the role of the Kenya Agricultural Research Institute (KARI) as a key partner in KAINet in addressing the information access and exchange challenges identified through a needs assessment of KAINet. Ms Rege presented achievements and progress in the challenge areas, lessons learned and the evolving KARI national 'intranet' of 42 Centres and sub-centres being interconnected as a major component of Kainite.

Mr. Samake's presentation focused on the activities being carried out at IRD in Burkina Faso to provide free access to the institution's information resources in digital format. He told participants that IRD has developed a database which contains about 37,000 documents in full-text. His presentation also emphasised the fact that the database was developed as a result of collaborative efforts between the researchers and information specialists and that it had contributed to increasing the number of scientific outputs available from the South.

Key issues presented and discussed were:

- Lack of funds often makes it difficult to bring the different initiatives together
- The need to build capacities by investing in information and communication activities and human resources
- The need to collect all information materials generated in research institutions to enable stakeholders to have access to appropriate content
- The need to build a coherent platform, based on international standards, by the different initiatives to facilitate information exchange
- The need to develop appropriate information communication and management strategies
- The need to create awareness of the availability of different knowledge sources in agricultural sciences and technology.

4.7. Plenary Session 6: Advocating for Opening Access to Knowledge in Agricultural Sciences and Technology in Africa: The Way Forward

This session was chaired by Mr. Vimbai M. Hungwe, Senior Programme Officer - Training, Information Training & Outreach Centre for Africa (ITOCA), Centurion, South Africa

The panelists were:

- Mr. Peter Ballantyne, President, International Association of Agricultural Information Specialist (IAALD), the Netherlands
- Prof. R.T. Awuah, Principal, College of Agriculture Education, University of Education, Winneba, Mampong-Ashanti, Ghana
- Dr. Pascal Hoba, Head of Communication, Publication and Services Department & Coordinator of the Database of African Thesis and Dissertations (DATAD) Programme, Association of African Universities (AAU), Accra, Ghana
- Dr. Justin Chisenga, Information Management Specialist, FAO Regional Office for Africa & President IAALD Africa Chapter, Accra, Ghana
- Mr. Francois Stepman, Communications and Public Awareness Specialist, Forum for Agricultural Research in Africa (FARA), Accra, Ghana.

The session emphasised the need to advocate for opening access to the agricultural sciences and technology information on the continent. It was also emphasised that agricultural information professionals on the continent need to be equipped with advocacy skills for them to be credible when carrying out advocacy activities.

Key issues presented and discussed were:

- It was observed that most information professionals (especially librarians) on the continent lack advocacy skills
- It was emphasised that information professionals need to understand and be familiar with what Open Access entails if they are to carry out advocacy on OA.
- Various stakeholders are involved in Open Access and therefore individuals involved in building institutional repositories or advocating for Open Access need to enlist the support of other stakeholders, especially that of the researchers
- In order to get institutional commitment, the benefits of IR and OA, i.e. decreasing the risk of duplication, making it easier to access information, and facilitating the work of researchers, should be emphasised
- On the use that could be made of the 2009 Kigali Declaration on the development of equitable information for African parliamentarians, panellists believed that it could be used to advocate for Open access through collaboration with international institutions and a consensus between partners of the projects

4.8 Special Session 2: Panel Discussion on: Public-Private Partnership in m-Agriculture: Roles and Incentives of Stakeholders.

This session was organized by the Forum for Agricultural Research in Africa (FARA) and chaired and facilitated by Dr. Ramatu M. Al-Hassan, Department of Agricultural Economics and Agribusiness University of Ghana. The session included two PowerPoint presentations and a panel discussion.

The following presentations were made:

- *Opportunities together: Public Private Partnerships in M-Agriculture* by Sean Paavo Krepp, Head of Emerging Markets Services, Middle East & Africa, South Africa.
- *Video and radio programmes: strengthening and creating private public partnership in agriculture* by Jonas Wanvoeke, Research Assistant, Learning & Innovation Systems Program, Africa Rice Center (WARDA), Cotonou, Benin

The Panel members included:

- Mr. Mark Davies, Esoko and Founder of BusyInternet, Accra, Ghana
- Mr. Sean Paavo Krepp, Head, Nokia Africa & Middle East Emerging Markets Services, South Africa
- Mr. Jonathan Petko, Regional Alliance Builder, USAID Ghana Office, Accra
- Mr. Jonas Wanvoeke, Research Assistant, Learning & Innovation Systems Program, Africa Rice Center (WARDA), Cotonou, Benin
- Mr. Simon K. Osei, Assistant Coordinator, Ghana Agricultural Information Network System (GAINS) Accra, Ghana.

Summary of the Presentations

The presentation on the following topic: “Video and Radio Programmes: strengthening and creating private public partnership in agriculture”, showed how the Africa Rice Center (formerly known as West African Rice Development Association - WARDA), which now has a continental mandate (African mandate), makes use of videos to extend the research results on rice to end-users.

A partnership has been built with a private company that creates videos of regional relevance for the Africa Rice Center with support from development partners. Videos are translated into local languages and disseminated to end-users. But there are some constraints: NARS neither have media expertise to work with media companies nor the skills for establishing contracts with the private sector. Therefore, when they attempt to translate the videos in their local languages, the videos lose their qualities.

In view of that, videos are being translated by the Africa Rice Center into many local languages. In perspective, the video should be integrated into mobile telephony and explore ways of getting feedback from farmers. Videos are sold at low cost to peasant farmers by the company in charge of the translation for cost recovery, since they are not paid for the work done.

The Cocoa Alliance Programme has developed PPP for increasing cocoa production. It was found that crop yield increased for farmers who participated into this PPP project.

Community radio stations are used in West Africa to transfer agricultural information. The number of questions received from listeners attests to the fact that people listen to the programme.

The presentation from Nokia indicated that about four billion people would be using mobile phones in 2009 and over one third of African population are actually using mobile phones. Future growth in the use of mobiles will come from Africa, if prices keep going down. Nokia has developed *Nokia Life Tools* which is a software suite embedded in certain Nokia phones to provide agricultural, educational and entertainment services to emerging markets. The tools have been piloted in India. The agricultural part provides information on market prices, weather and agriculture information/tips relevant to the cropping cycle in one package.

Key challenges for the delivery of m-agricultural (mobile agricultural) content include trust, ease-of-use, digitization, timeliness, quality/quantity. Strong partnerships between the private and public sectors, i.e. ministries of agriculture, can deliver relevant and trusted information to farmers.

Issues discussed/raised:

- Some participants complained that mobile phones now do not have long lasting batteries and this makes it difficult for people in the rural areas to use them. So it would be good for mobile phone manufacturers to produce long-lasting batteries.
- Mobile phones present a great opportunity for delivering information to the farmers and for providing access to the markets (market information systems).
- Panellists agreed that PPP is a good pathway for building partnership for m-agriculture. They also agreed that the potential exists for the use of mobile telephones in agricultural projects.
- It was indicated that the way the public sector works in Africa works hampers implementation of PPP. It takes a lot of time and effort to come to an agreement on projects/initiatives, sometimes the Sector duplicates efforts, and can be un-reliable when it comes to continued funding for the sustainability of the initiatives,
- PPP should work in the area of deployment in the field to deliver messages to the private organisations.
- Collaboration between mobile companies could help solve a number of connectivity problems in Africa.
- There is a need to create a community of practices by identifying the best practices.
- The private sector institutions need cash to sustain themselves; therefore they cannot always provide their services free of charge.

4.9 Special Session 3: IAALD Africa Chapter Business Meeting

This session was chaired by Dr. Justin Chisenga, President of the IAALD Africa Chapter. Attendance at the Business Meeting was open to Chapters members only while some observers

were also invited. The meeting, whose proceedings would be covered in the minutes of the meeting, reviewed and adopted reports by the Chapter's Secretary/Treasurer, Mr. Gracian Chimwaza, and the President, Dr. Justin Chisenga.

The major item on the meeting's agenda was the election of the Chapter's Executive Committee for 2009 – 2012. The electoral process, which was stated on 15th February 2009 with a call for nominations, ended up with the following being nominated un-opposed and therefore being declared dully elected:

- President – Justin Chisenga, FAO, Accra, Ghana
- Vice President – Dady Demby, FARA, Accra, Ghana
- Secretary/Treasurer – Gracian Chimwaza, Centurion, South Africa
- Sub-regional Representative: Central Africa – Josué Tetang Tchinda, CARBAP, Njombé, Cameroon
- Sub-regional Representative: Eastern Africa – Alice Nakagwa, NAADS, Kampala, Uganda
- Sub-regional Representative: West Africa – Boniface Bourn, CNRA, Cote d'Ivoire

The positions for sub-regional representative for North Africa and Southern Africa would be filled later.

5.0 Recommendations

Taking into account the theme and sub-themes of the conference, the issues raised and discussions during the presentations and panel discussions, the following were the key recommendations that came out of the Second Conference of the IAALD Africa Chapter:

1. Agricultural research institutions and universities in Africa should:

- Develop and implement appropriate information communication and management (ICM) policies and strategies to promote and facilitate access to public agricultural sciences and technology information and knowledge.
- Invest in agricultural information management and communication infrastructure and activities including building of full-text-based institutional repositories of outputs of research.
- Put mechanisms in place to ensure that appropriate procedures are followed, including obtaining copyright clearance and necessary permissions, when collecting materials for the institutional repositories that are Open Archives.

2. Agricultural information professionals in Africa should:

- Build appropriate capacities and acquaint themselves adequately with various issues relating to Open Access and Open Archives initiatives including the benefits and disadvantages associated with Open Access and intellectual property rights (IPR) issues in an Open Access environment.

- Develop advocacy skills to enable them to advocate effectively for increased investment in opening access to agricultural sciences and technology information and knowledge.
3. IAALD Africa Chapter should develop information materials, including policy briefs, highlighting the benefits of Open Access and Open Archives to institutions and research scientists to be used in advocacy activities by the Chapter members.
 4. Stakeholders in the agricultural sciences and technology field, i.e. research scientists, policy-decision makers, funders of research, information professionals, etc in Africa should collaborate, work together and support initiatives aimed at making agricultural research information publicly available cost effectively and accessible to all.
 5. Public and private institutions should partner on innovative solutions aimed at using hand-held devices such as mobile phones, PDAs, etc to deliver relevant and timely information to the farmers in Africa cost effectively.

6.0 Closing Ceremony

Mr. Peter Ballantyne, President of the International Association of Agricultural Information Specialists (IAALD) delivered the closing address of the Second IAALD Africa Chapter Conference. He congratulated the organizers for holding a successful conference after which Mr. Clement Entsua-Mensah, the Conference Chairperson, gave a vote of thanks.