

 <p>Food, Agriculture and Natural Resources (FANR) Directorate SADC Secretariat</p>	<p>Implementation and Coordination of Agricultural Research and Training in the SADC Region (ICART)</p>	 <p>European Union 9th EDF</p>
--	--	--

Back to Office Report

**Workshop on the Development of an Agricultural Information,
Communication and Knowledge Management (AICKM) strategy
in Agricultural Research & Development (AR&D) at national
level**

ZAMBIA

Lusaka, Zambia
19-21 May 2010

K.J. Bheenick

BACKGROUND INFORMATION:

A series of national workshops have been envisaged in the SADC Member States as part of the process to initiate reflection at national level on the need for developing strategies for Agricultural Information, Communication and Knowledge Management (AICKM). This follows a couple of regional workshops organised by the ICART project, where the SADC Network of Agricultural Information Managers had developed a method for carrying out these national workshops and provided some guidelines on the development of such strategies. The intention is to create awareness of the need to develop AICKM Strategies at National Level and eventually at Regional level.

Zambia workshop:

The workshop held in Zambia was the second in the series and was possible following data gathering that had been carried out by the local organizing team, which consisted of members of the Zambia Agricultural Research for Development Information Network (ZAR4DIN). The workshop was planned over 3 days, as per the attached programme. Attendance was high throughout the 3 days.

Following the presentations on the approach to agricultural information management at the SADC level, including the use of the AIMS portal, participants started the process of carrying out the stakeholders information needs assessment using the matrix designed for that purpose. The following day, the process of identifying components of the AICKM Strategy was started and on the final day, participants were able to have a first outline of the AICKM Strategy Document, which would be refined through follow-up meetings both using electronic means as well as face-to-face meetings. On the last day, a session was held to demonstrate some of the Web 2.0 tools available to facilitate information exchange in the region. Other local institutions and companies involved in providing internet services to the rural areas also made presentations.

The ZAR4DIN members constituted an editing team to oversee drafting of the AICKM Strategy document and it allocated responsibilities to members present to draft different parts of the document and post these on the discussion forum provided.

The documents attached to this report describe the programme and the outputs of the workshop.

Conclusions:

The meeting provided an opportunity to the ICART project to backstop the National Focal Point and members of the SADC ARD Information Managers Network in leading efforts to develop the national AICKM. The collaboration with the ZAR4DIN was also a good example of how projects being implemented in the region, with proper coordination, can complement each other for the benefit of the Member State.

Participants were able to better appreciate the roles of their institutions and themselves in the process of facilitating agricultural information exchange.

The discussion forum created for the ZAR4DIN is hosted on the AIMS portal. It can also be accessed at:

<http://dgroups.org/groups/SADC-AIMS/ARD/SADC-AIMS-ZM-ZAR4DIN>

Programme

Workshop on the Development of an Agricultural Information, Communication and Knowledge Management (AICKM) strategy in Agricultural Research & Development (AR&D) at national level

19-21st May 2010. Palmwood Lodge, Lusaka, Zambia

DAY 1	
Wednesday 19th May 2010	
Opening Session	ITEM
08:30 – 09:00	Registration of participants
09: 00 – 09: 15	Welcoming Remarks and Opening of the workshop by CARO-Region II, Mr. John Musanya
09: 15 – 09: 45	The SADC approach to Information, Communication and Knowledge Management in Agricultural Research & Development - Mr. Krishan Bheenick
09:45 – 10:00	Tea Break
Session 1	<i>Presentation of the SADC AIMS portal and the AICKM Methodology</i>
10:00 – 10.15	Review of Workshop Objectives, Approach & Expected Outcomes – Mr Davy Simumba
10.15 – 11:00	The SADC Agricultural Information Management Information System (AIMS) and web based tools to facilitate networking and collaboration – Mr. Krishan Bheenick
11:00 – 11: 30	Establishment and functions of the Learning Team – Ms. Bertha Lungu
11: 30 – 12: 00	Methodology for the development of the AICKM Strategy – K Bheenick
12.00 – 13.00	Introduction of the use of the Information Needs Analysis matrix – Mr. Davy Simumba
13:00 – 14:00	Lunch Break
Session 2	Assessment of Stakeholders Information Needs
14:00 – 15:00	Group work to review the context and content of the matrix. Stakeholders both as producers and users of information
15:00 – 15:15	Tea Break
15:15- 16:30	Group work continued
	End of day 1

DAY 2	
<i>Thursday 20th May 2010</i>	
Session 3	Validation of Information Needs by Stakeholders
08:30 – 10:30	Plenary sessions to validate the completed matrix, to serve as the basis for communication and information exchange
10:30 – 10:45	Tea Break
Session 4	AICKM Strategy development
10:45 – 13:00	Review of the linkage between the matrix and the method for developing the AICKM Strategy; Creation of work groups to address parts of the AICKM Strategy
13:00 – 14:00	Lunch Break
14:00 – 15:00	Group work on the AICKM strategy development
15:00 -15:15	Tea Break
15:15 -16.30	Continuation of group work; Drafting of AICKM sections by groups
	End of day 2

DAY 3	
<i>Friday 21st May 2010</i>	
Session 5	Establishing the first draft of the AICKM Strategy
08.30- 10.30	Plenary on the 1 st draft of the AICKM Strategy; Identification of gaps
10.30 – 10.45	Tea Break
10.45 – 13:00	Presentations of Web 2.0 tools Presentations by Internet Service Providers Reporting on progress in implementation of the ZAR4DIN project by the Learning Team
13:00 – 14:00	Lunch Break
Session 6	Planning and costing the implementation of the AICKM Strategy
14:00 – 15:00	Establishment of the write-up team: mode of operation of the to complete the process within an agreed schedule, Discussions on the means of implementation of the Strategy (short-term, medium term)
15:00 – 15:15	Tea Break
Session 7	Way forward to complete the AICKM Strategy Document
15:15 – 15:45	Presentation by each stakeholder of actions he/she will be undertaking to contribute to the conclusion of the draft national strategy. Facilitation by the electronic networking tools. Establishment of mechanism to endorse the draft strategy. Sharing of the draft document among stakeholders
15:45 – 16:00	Closing remarks by facilitator /SADC Secretariat and Ms. Helen Kasalu





ZAMBIA AGRICULTURAL R&D STAKEHOLDERS INFORMATION NEEDS ASSESSMENT MATR

Stakeholder Group	Information Needs	Priority	Frequency	Source	Channel	Cost	Impact	Feedback
Smallholder Farmers	Market prices, weather forecasts, pest control	High	Weekly	Local extension agents	Radio, SMS	Low	High	Regular
Commercial Farmers	Input prices, government policies, export markets	Medium	Monthly	Government departments	Printed materials, webinars	Medium	Medium	Occasional
Agribusinesses	Supply chain efficiency, technology adoption	Medium	Quarterly	Private sector partners	Workshops, conferences	High	Medium	Regular
Government	Policy impact, agricultural productivity	Low	Annually	Research institutions	Reports, seminars	Low	Low	Infrequent
NGOs	Community development, social services	High	Monthly	Community leaders	Door-to-door, group meetings	Low	High	Regular
Academia	Research findings, technical knowledge	Low	Annually	Universities	Publications, conferences	High	Low	Infrequent
Media	Public awareness, information dissemination	Medium	Weekly	Media organizations	TV, radio, newspapers	Medium	High	Regular
Financial Institutions	Financial products, credit access	Medium	Monthly	Bank branches	Branch visits, mobile banking	High	Medium	Regular
Input Suppliers	Product quality, customer preferences	Medium	Quarterly	Field agents	Field demonstrations, surveys	Medium	Medium	Regular
Exporters	Quality standards, market requirements	Medium	Quarterly	Export agencies	Trade fairs, certification	High	Medium	Regular
Importers	Product availability, pricing	Medium	Quarterly	Wholesalers	Market surveys, focus groups	Medium	Medium	Regular
Consumers	Product quality, safety, price	High	Weekly	Market surveys	Surveys, focus groups	Low	High	Regular
Government	Policy impact, agricultural productivity	Low	Annually	Research institutions	Reports, seminars	Low	Low	Infrequent

ZAMBIA AGRICULTURAL INFORMATION, COMMUNICATION & KNOWLEDGE MANAGEMENT (AICKM) Strategy *(Draft 1)*

INTRODUCTION *(Group 1: Simunji Simunji and Stubbs)*

What is AICKM?

The Agricultural Information, Communication & Knowledge Management (AICKM) is a strategy for national and regional information dissemination and sharing. This strategy allows for a systematic two way communication system between the sender and the receiver of information and knowledge. The strategy requires use of websites and other efficient communication tools that ensure effective transfer of information. It is developed and coordinated by various stakeholders involved in generating agricultural information that includes research, production, processing, marketing, policy, social and economical aspects.

Why store information and knowledge

Information and knowledge is stored for easy accessibility by the stake holders. This information stored is required mainly for dissemination, exchange and sharing. Researchers in the region would have a more effective way to retrieve the knowledge of the activities on agriculture implemented in the past. Hence the strategy acts as a backup archive for agricultural information. The storage of information also plays an important role for stake holders who keep track of the activities that are shared to avoid duplication of the work already done and may be costly.

Qualities of a knowledge sharing platform

The AICKM strategy requires a knowledge sharing platform that is effective in developing, processing and concisely packaging of agricultural information. Therefore the platform qualities should comprise of stakeholders having different disciplines on agriculture. The platform should be able to improve the existing collaboration strategy to strengthen the linkages and promote the utilization of modern approach to information sharing.

BACKGROUND TO THE AICKM STRATEGY *(Group 2 Mwendabai Sinyinda, and Lloyd Kabulwebulwe)*

Policies supporting AICKM at regional and national level

*(Group needs help from others to complete the review of policy documents)
(Have extracts of the policies ready to be used)*

Regional Level Policies

- SADC protocols on ICT, agriculture, fisheries, natural resources, scientific research, trade,
- COMESA protocols on agriculture, fisheries, natural resources, trade, research, ict,

National Level Policies

- National Agricultural Policy 2007
- ##National ICT Policy?
- ZICTA (ICT policy 2009)
- National development plan strategy 2016

Supportive Policies

- Cotton act
- Science and Technology policy
- Zambia Wildlife Authority act
- National Resources Management act

Others policies at regional and international (which Zambia is expected to

- International: FAO, EU, CAP,

AICKM in National Institutions in relation to AR&D

(How is AICKM reflected in policy documents of the institutions?)

(ZAR4DIN members to send extracts of their institutional documents that provide evidence of this at their level)

- The Existence of MoA regarding AICKM in the MACO /ZARI, MACO/NAIS, etc as Government ministries or Government Agencies as evidence of national commitment.
- Resource allocations in the National Budget for AICKM project activities, for human resource remunerations, travels, training costs, research, publicity, workshops, equipment, materials, etc
- AICKM related Website links availability on ministry or agency website
- *(can we also say that some institutions do not give AICKM due credit?)*
- *Point out which institutions do not have any policies or actions in that direction*

Who are the stakeholders of AR&D?

(text to come)

List to come (use Day1) and to be validated

Current status of AICKM in AR&D *(Group 3: Edwin N. Abwino and Davy Simumba)*

Agriculture Information, Communication and Knowledge Management (AICKM) system in AR&D in Zambia is currently not well established. The current communication system lacks coordination and linkages and this has resulted in research findings not being shared with the end users who desperately require AR&D information. Generally there is insufficient information on what is available in AR&D due to the gaps that exists in the information delivery system. Apart from that whatever is available is hard to be accessed by the end-users because of poor coordination and linkages. The existing poor linkages are attributed to lack of capacity to integrate Information Technology tools into AR&D.

There is very little information flow between the end-users and the research institutions which should propel AR&D, as the result of this the research institutions have limited knowledge about the challenges that the end-users face in their line of operations and vice-versa. This gap in information flow between the researchers and end-users has led to Top-Bottom research approach whose findings become irrelevant and inappropriate to the end-users.

Databases on agricultural information are generally not well developed and updated. The current system for storing AR&D makes it difficult to have a well coordinated and functioning AICKM. Most of the information is stored in hard copies which makes it difficult to disseminate to a larger audience. The limited information stored in soft copies has restricted access.

Current challenges to AICKM

In regards to the current status of the AICKM in Zambia, there are a number of challenges and these include;

- ✓ Poor communication system between stakeholders. This is attributed to lack of user-friendly communication system in the relevant institutions
- ✓ Poor funding for the establishment of the Internet tools which has proved to be a current and efficient communication system
- ✓ Communication is yet to be mainstreamed into the main operations of the stakeholders. Currently AICKM is just an integration into AR&D and its rarely taken on board at planning stage
- ✓ Poor ratio for the extension officers to farmers which makes it almost impossible to effectively disseminate information to the end-users
- ✓ Insufficient capacity to establish AICTM. AICTM requires specific technical skills for formulation and implementation and these skills lack with most of the stakeholders
- ✓ Language barriers and poor packaging of the materials
- ✓ Bureaucracy: Information is difficult to be accessed due to lack of information system which is accessible.
- ✓ Annual subscriptions for sources of information have also proved to be a challenge to some institutions due to poor financial support.

Goals of AICKM

- ✓ To make available and deliver accurate, relevant, timely, and consistent AR&D

information to those who need it and *have authorization* to access it, and to do this in cost effective manner.

The need for an AICKM Strategy (objectives)

- ✓ To establish a well functioning AR&D information exchange platform
- ✓ To establish a foundation for specific policy formulation
- ✓ Improve awareness of the information needs of end-users, stakeholders and researchers.

THE PROCESS OF DEVELOPING THE AICKM STRATEGY (METHODS) *(Group 4: Patricia Lumba and)*

Establishment of the Core Team

A core team led the process to ensure cohesion of the process. They managed various tasks relating to

- Stakeholder involvement/participation

Identification of stakeholders of the AICKM Strategy

- Stakeholder mapping to identify primary and secondary stakeholders and groupings

Information needs assessment of AR&D stakeholders

- Used participatory approach that gave participants their opportunity to expand on each others' views regarding how knowledge is managed within organizations and at network level (writing on the wall method)
- Matrix divided into various sections

Planning the development of the AICKM strategy

(Needs to be more a narration of what has been done)

INFORMATION NEEDS ASSESSMENT OF THE AR&D STAKEHOLDERS *(Group 5: David Chilufya, and Betha S. Phiri)*

The information needs assessment matrix

The information needs assessment matrix is a tool that can be used to identify stakeholders to be included in the AICKM strategy. It also helps individual institutions to take stock of their available agriculture information resources and needs. In identifying the stakeholders, the matrix brings together all the stakeholders that in the AR&D forming a network. The network includes stakeholders' areas of agriculture research information resources, information needs as well as the gap. This in turn leads to networking of institutions between and among themselves. Through collaboration and networking, stakeholders' are able to contribute more effectively to agriculture research and development.

So????

Where is the matrix?

The network will continue to refine the matrix

ANALYSIS OF THE MATRIX

This can be done through holding small stakeholders' meetings; doing an inventory of the stakeholder institutions information needs and assets to use in the collaboration. The matrix can also be analysed using the Dgroup. It can also be analysed by sending it to heads of departments of the stakeholders' institutions so as to solicit their contributions.

The contents have to be specific and can help us to understand what has to be done as part of the strategy

ANALYSIS OF AICKM AND DEVELOPMENT OF THE AICKM STRATEGY *(Group 6: Martha Chanda Christine Kanyengo and Nosiku Sikanyika)*

Input from participants

- The AR&D information highway.
- What strategy are you using?
- What is available? Missing? Should be done?
- Who needs what information and on what?
- Existing publications could be used.
- Statistical analysis
- Method of analysis of AICKM strategy.
- Frequent updates
- Who are involved in the analysis of the AICKM development of the AICKM strategy
- Use diagrams to illustrate the context

ANALYSIS OF THE AICKM STRATEGY

Is the AICKM strategy going to meet the organisations intended goals? In order answer to answer this, there is need to do a comprehensive analysis of the AICKM strategy by looking at the information needs matrix. In so doing: information gaps will be identified and noted; alternative tools that could be used by the institutions for information sharing. The analysis should include people, infrastructure, content and technology that have an impact on the organisation.

People

Inventory of the skills available and required

Infrastructure

Does the organisation have the necessary hardware?

Content

Who has the knowledge, where is it located, and in what format. What knowledge is the organisation willing to share and what knowledge do we need?

Technology

What technology do we have/ need to ensure smooth development and adoption of KM strategy

Assessment of knowledge sharing platforms

DEVELOPMENT OF THE AICKM STRATEGY

Firstly, identify relevant stakeholders that can participate in the KM strategy. A core team of KM strategy chosen from the identified stakeholders needs to be in place and who will have to meet frequently to develop the strategy. The best way is through the Dgroups. It is important that senior management buys into the KM strategy in order to facilitate the smooth deployment of the strategy. Commitment will be required by each institution/participant. Senior management support can come in various forms; e.g funding, policies, space. Local stakeholders need to be sensitized on the KM strategy so that it is eventually owned by the all stakeholders. However, for local stakeholders to effectively participate there is need to develop a training programme on KM tools.

COMPONENTS OF THE AICKM STRATEGY *(Groups 7, 8 & 9)*

Communication strategy *(Group 7: Charles Lungu and Jenevieve Namangala)*

1. Definition
 - a. As component of AICKM strategy
 - b. Need for Communication
 - c. What to communicate
 - d. Who to communicate
2. Objectives of the communication strategy
3. Methods/Systems of communication
 - a. Generation
 - b. Transmission
 - c. Updating
 - d. Storage
4. Communication Channels
 - a. Sharing and feedback mechanisms
 - b. Infrastructure
 - c. Language
5. Communication Tools
 - a. Identification/ appropriateness/ inventory
 - b. Selection
 - c. ICTs
 - d. Media
6. Communication standards
 - a. Open source software
 - b. Classification/ Indexing/ Abstracting
 - c. Packaging
7. Beneficiaries/ Stakeholders
 - a. AR&D Stakeholders
 - b. The AR&D Information highway

Information Management Strategy *(Group 8: Hellen Kasalu and Mumba Kampengele)*

Definition of Information Management: Application of management techniques to collect information, communicate it within and outside the organization, and process it to enable managers to make quicker and better decisions.

Information is a strategic resource, and should be managed appropriately. A lot of information is available in different institutions and need to be managed properly. Identifying methods to be used to collect this information is crucial. For example consider where and how the data /information is collected and by whom. How this data should be processed and sorted in the required format. A database on this information should be established. This should also include maintenance of an offline database. Consider where the information are stored, and how it flows between various databases. It is important to identify / develop tools of managing the information. This information should be validated and secured and methods to do this should be identified or developed. Methods of updating the information should also be identified / developed and then determine how often this must be done. For effective information management, there should be trainings and workshops for personnel to build capacity in information management. Another key issue to be considered in the ensuring that finances for this activity is sourced.

Issue of standards is very important in this Strategy

What are the objectives

What IM is

Its Objectives

The value it brings

Target groups and their situation

The dynamic context

Options available

Content storage, processing, packaged, communicated

Knowledge Management Strategy *(Group 9: Chibila Beyani and Danny Munsanje)*

Introduction

Knowledge is information that has been put into productive use, made actionable, it is only of value when shared and applied.

The communication strategy is a cornerstone of knowledge management strategy. It ensures that the key messages of the strategy are correctly communicated. It raises awareness and understanding and helps embed the knowledge management tools and techniques into organizations.

The communication plan should have the objective of changing attitudes and behaviour among stakeholders. The knowledge management strategy should aim to move organizations from awareness to action, and the communication strategy should support this aim.

Objective

The objective of the Knowledge and Management Strategy is to address the ever-increasing challenges brought on by market pressure (demand for knowledge). The will seek to identify the key needs and issues among the stakeholders and provide a framework for addressing these needs.

Strategic Focus

What Value Will Knowledge Bring

Knowledge enlightens and gives stakeholders a chance of making better decisions in their organizations. Knowledge can be used to improve technologies, products and levels of production. It also improves efficiency and service delivery. It helps institutions by learning from others' experience to find better solutions more quickly. It is useful for developing understanding of challenges and solutions for institutional improvement. KM is useful in developing skills, supporting timely professional development. It improves results using the best knowledge and information to provide a foundation for new work.

Networking and Collaboration

Stakeholders that are networked and work in close collaboration have benefits of knowledge sharing and exchange of experiences. Working collaboratively to share learning and experiences will save a lot of time and effort and can help stakeholders avoid making mistakes that others made, duplication of efforts is also reduced. Communities of Practice (CoPs) allow people in the institution to find solutions by networking with like-minded people and share their experiences, questions, solutions and ideas.

Exposure to Various Technological Tools and Skills/Learning

ICT is one of the sectors which is knowledge intensive and also experiencing rapid technological development. Developing countries have limited expertise which cannot adequately match-up with the pace of technological development. There is also inadequacy in skills to exploit and utilize the vast resources that internet and internet related services provide for scientific research. Equally important is how information resources can be efficiently managed through application of KM services. Therefore concerted efforts are required to train and upgrade the skills personnel to master and use the technology (learning team).

Innovation

Stakeholders should recognize the importance of innovation in ensuring long-term growth and survival. It is important that stakeholders move away from the normal structures that constructed to ensure consistency, repeatability and efficiency of current processes and products. Stakeholders need to look to unfamiliar techniques to encourage and drive innovation.

Information Generation

Format to Present Knowledge

An in depth definition of the formats of how the knowledge will be will be presented in very cardinal. Forms to look at are:

- Hard copies –printed (journals, write-up, reports, newsletters, brochures and leaflets)
- Softcopies –electronic version of documents tabulated above

It is important to identify the sources of the knowledge, where it is from, who the originator of the document is, the quality, reliability of the knowledge as well as its legality.

Target Groups

IMPLEMENTATION OF THE AICKM STRATEGY *(Group 10: Sharon Ndandula and Chimika Lungu)*

Assessment of existing knowledge sharing platforms

There are a number of platforms that are being used by the stakeholders in order to share knowledge and information in AR&D. These include online discussions such as Dgroups, Radio and/or TV interviews, Portals, workshops and seminars, conferences, websites, field days, demonstrations, and annual reports.

(Difference between a platform and a channel?)

Who will implement and how?

Relate to qualities of a good KS platform mentioned in Introduction

The ICT infrastructure, skills and tools are sometimes not available and accessible by the stakeholder organizations.

- What other methods/ platforms are being used in info sharing?
- Are they yielding the expected results?
- What tools can be used to enhance knowledge sharing? Are there any new ones to explore?

Information and knowledge exchange activities

This will involve planning and implementing the activities that will be used to disseminate information.

Workshops, conferences, regular focus group meetings, seminars, scientific symposiums, field days, open days, advertisements in the media to be undertaken in order to broaden the existing knowledge and get new ideas from the stakeholders

Radio and television interviews and discussions to be conducted where different stakeholders collaborate to share information with each other and thereby reaching a wider audience.

Setting up an offline library will enable stakeholders who have problems with connectivity have access to information that is put up by others;

- Frequency of activities
- Which stakeholder is going to do what?

Education and awareness programmes *(Group 11: Christopher Mbewe, Darlington Kahilu and Pamela Mulozi)*

Education and awareness programmes will be achieved through:-

- Farmers' field days, demonstrations, agricultural shows
- Radio programmes, Television adverts and programmes, publications in form of booklets, leaflets, newsletters, brochures, fliers
- Institutional workshops, seminars, conferences
- Field visits
- School programmes such as quizzes, debates, and other competitions
- Internet
- SMS,
- Database
- Papers

The National Agricultural Information Services (NAIS) in conjunction with the ZARI will coordinate all matters relating to education and awareness programmes. It is also envisaged that effort be made to include AR& D in the training curriculum of all agricultural training institutions. Awareness

Information and knowledge in a regional and global context

Realizing the importance of knowledge exchange at both regional and global levels, the project will endeavor to share information and knowledge on agricultural production and marketing through the following channels:-

- Annual meetings with various stakeholders at regional level
- Produce quarterly newsletter that will be circulated as hard copies and through the internet
- Advertisements through the media, banners, public transports
- Campaigns and promotions
- Creation of institutional depositories that will be posted on the AIMS website

Monitoring and evaluation

Monitoring will be an ongoing activity while evaluation will be conducted on annual interval. Departmental heads of participating institutions shall play a critical role in ensuring the implementation of the activities. Monitoring shall include the utilization of all resources, and performance activities. The following will be used as monitoring tools:-

- Quarterly reports
- Performance indicators
- Surveys
- On-line filling of questionnaires by all stakeholders

Impact assessment

The impact assessment shall carry out at the end activities to establish positive or negative impact on the stakeholders at local, regional and international levels. A consultant will be engaged in carrying out the impact assessment

TIME FRAME

BUDGET