FAO/COAIM/2/REP

REPORT

of the

SECOND CONSULTATION ON AGRICULTURAL INFORMATION MANAGEMENT

Rome, 23 - 25 September, 2002

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

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I. Background

1. The Director-General of the Food and Agriculture Organization of the United Nations (FAO) extended an invitation to the Second Consultation on Agricultural Information Management (COAIM) in his circular letter (Ref. G/GIL-804) dated 3 June, 2002 addressed to all the Member States of FAO, and to international organisations and regional and subregional institutions.

2. The general aims of the COAIM are to bring policy issues related to the management of, and access to, agricultural information to the attention of the inter-governmental process, and to establish a global framework for the normative work of the World Agricultural Information Centre, WAICENT, recognising the key role that information and knowledge play in ensuring food security and sustainable development, and thereby meeting the objectives of the World Food Summit Plan of Action.

3. During the First Consultation on Agricultural Information Management, held in Rome, Italy from 5 to 7 June, 2000 it was agreed to place a high priority on improving Member States and other stakeholders´ access to agricultural information through WAICENT, taking full advantage of the opportunities provided by the new generation of information and communication technologies.

4. The Second Consultation on Agricultural Information Management took place in an international policy context in which multilateral agreements on information and communication technologies complemented FAO´s efforts to address Member States needs and strategies on agricultural information management and as a means to promote food security and sustainable development.

5. In the previous context, the First Consultation on Agricultural Information Management established the dates and the substantive elements of the agenda for the Second Consultation meeting, as well as the following objectives:

1. to review ways and mechanisms to improve the capacities of decision-makers, professionals and the public at large in Member States to access and use agricultural information;

2. to identify priority actions and co-operation activities;

3. to review guidelines and standards that enhance access to relevant data and information world-wide.

II. Participation

6. All FAO Member States, regional and subregional intergovernmental organisations, agencies of the United Nations system and non-governmental organisations were invited. The meeting was attended by 142 governmental representatives of 75 Member States, as well as seven representatives of five United Nations organizations and specialized agencies, and 41 representatives of 19 national and international organisations, as well as six representatives of six non-governmental organisations. A list of participants is included in Annex III of this document.

III. Agenda Item 1: Opening of the Meeting

7. The opening ceremony took place on 23 September, 2002. The Consultation was opened by Ms. Carleen Gardner, Assistant Director-General of the General Affairs and Information

Department on behalf of the Director-General of FAO. In welcoming the participants Ms. Gardner expressed her pleasure in opening this Second COAIM.

8. Ms. Gardner emphasised that since the last COAIM, the world has experienced many significant developments in technology, as well as in other areas of human endeavour. It is necessary to address the needs of our Members, to remove all obstacles so that FAO Members are fully able to "scan globally and re-invent locally" the means to achieve food security in the shortest possible time. Also in order to better assist Members "scan globally for information and knowledge about science and technology", the agricultural information managers will have to set priorities about what kind of information to tackle first.

9. Also, Ms. Gardner mentioned that setting priorities is always difficult and everyone has a different view of what information is most useful for achieving food security. But all agree that in this globalised economic environment, access to world-wide information is absolutely essential if countries are to be able to engage in any kind of meaningful development process.

10. Ms. Gardner closed her address expressing her hope that Member States would consider with a sense of urgency some of these challenges during the three days of the Consultation. She was confident that they would provide valuable guidance to the Secretariat for its work in the coming years.

11. Ms. Gardner then gave the floor to Mr. Carlos Braga, Director of the Development Gateway Foundation, who explained the different activities developed to promote a better access of information and in particular those related with food security. Ms. Julianne Lee, Senior Programme Officer of the World Economic Forum stressed the importance to promote and enable improved co-ordination between agencies and governments and the need to strengthen the activities developed by the private sector according to the users´needs on agricultural information. Mr. Peter Armstrong, Director of One World International, emphasised the major importance of locally-derived content and the adoption and use of standards and guidelines to facilitate access to information.

IV. Agenda Item 2: Organisation of the Meeting

a) Election of officers

12. Mr. Anthony Devlin, Alternate Permanent Representative of Ireland, was elected as Chairperson of the meeting; Mr. Walter Ruiz Valverde, Vice-Minister of Agriculture and Livestock from Costa Rica and Mr. Yamoussa Fofana, Director of the National Service of Agricultural Statistics of the Ministry of Agriculture of Guinea as Vice-Chairpersons; and Mr. Essam Zawia, Alternate Permanent Representative of Libya to FAO as Rapporteur. Mr. Francisco Perez-Trejo, FAO/WAICENT Manager, acted as Secretary of the Consultation.

b) Approval of the agenda and programme of the meeting

13. The Provisional Agenda (FAO/COAIM-2/1) and the Provisional Annotated Agenda (FAO/COAIM-2/2) were approved without amendments.

V. Agenda item 3: Programming issues

Report of the Secretariat

14. Under this agenda item, the Secretariat presented a brief report on the document FAO/COAIM-2/3 summarising the fulfilment of the recommendations of the First Consultation on Agricultural Information Management (Rome, Italy 5 to 7 June, 2000) developed by the

different departments of FAO. Major activities implemented were related to improving access to information management; promoting collaboration with other UN agencies and international organisations; creating improved global standards for the exchange of information; strengthening Member States´ capacities to use, store, disseminate and distribute agricultural information useful for decision-making; and collaborating closely with stakeholders in order to strengthen their information management capacities, taking full advantage of the opportunities provided by the new generation of ICTs (information and communication technologies).

15. The delegates commended FAO for the significant improvements in the dissemination of the Organization´s information, and emphasized the Member States´ needs for FAO´s progressive work on specific topics, according to the priority activities to be developed over the next two years.

16. The delegates also stressed the need for a full and fair implementation of the language policy on the FAO Web site, and the importance of strengthening the existing national agricultural information centres to provide updated information to key stakeholders, including local communities on market information, early warning and post-harvest information management.

17. The Consultation also noted the importance of avoiding duplication of efforts and recognised the role of WAICENT in collecting, managing and disseminating the Organization´s information essential for decision-making, and the need to strengthen its capacities.

18. Emphasis was placed on the information needs of rural women and the strengthening of national institutions responsible for agricultural information management.

Improving Access to Agricultural Information

19. The Secretariat emphasised the progress made in the Organization´s capacity to manage information and knowledge, ensuring their wide and timely dissemination, and presented a detailed report of the activities developed to address the recommendations resulting from the last Consultation.

20. However, the Consultation noted the importance of developing indicators of impact of information in promoting food security and sustainable development in local communities. This evaluation system should include an analysis of the different users and their information needs.

21. In addition, emphasis should be given to strengthening local and national institutions, in improving access to agricultural information. Within the new scope of information needs, the development of policy formulation and the evaluation of information systems should be considered, including the development of local knowledge systems.

Strengthening Partnerships and Alliances

22. Under this agenda item, the Chairperson gave the floor to Mr. John Rose, Senior Programme Specialist of the Information Society Division, UNESCO and Mr. Felipe P. Manteiga, Director for Strategic Partnerships, IICA (Inter-American Institute for Cooperation on Agriculture) who explained the importance to strengthen inter-agency co-operation in order to promote effective collaboration in capacity-building efforts with Member States and in particular a better use of information and communication technologies.

23. Afterwards, the Secretariat presented a summary of the activities developed to promote partnerships with a view to securing complementarity and coherent strategies and programmes among FAO units and with governments, UN agencies, international organisations and private

and civil society on the documents FAO/COAIM-2/Inf.4 and FAO/COAIM-2/Inf.5 in order to ensure synergy of efforts in achieving the goals of food security and sustainable development.

24. The Consultation supported the suggested co-operation mechanisms and requested FAO to promote the establishment of similar efforts at national and regional levels. Also, delegates requested FAO to work closely with other international initiatives (in particular the World Summit on Information Society, WSIS) related to information and communication technologies to promote synergies and ensure that food security and sustainable development issues be included in their agenda.

25. Some delegations noted the importance of improving the activities developed by FAO at regional level and of providing technical support in the development and/or strengthening of national agricultural information centres.

Capacity Building in Agriculture and Food Information Management

26. The Secretariat introduced the section of the Report of the Secretariat (FAO/COAIM-2/3) referring to capacity building. FAO´s support to capacity building in Member States had been considered after the first COAIM, and a strategy included in the Medium Term Plan of the Organization in the form of WAICENT Outreach. Within this area of activity, other recommendations of the first COAIM had been taken into consideration in the development of the Information Management Resource Kit. The Secretariat then described work undertaken in the field programme, and in relation to training courses, workshops, and the provision of technical assistance to Members. The key role of consortia in providing support to capacity building efforts was described, together with some illustrative examples of programmes of collaboration at national and regional levels.

27. Delegates commended FAO for the extensive programme of work undertaken since the first COAIM, and noted that the initiatives and projects described in the paper represented only a part of FAO´s overall programme of work. Delegates noted that the Organization was addressing Members´ needs in all regions of the developing world and countries with economies in transition, but stressed the importance of improving methods and processes for recognising and developing an understanding of the needs of the various groups of stakeholders at national and sub-national level. The Consultation recognised the potential value of sharing expertise and experience between Members, and highlighted FAO´s normative role in this context in mediating such exchanges.

28. The Consultation recognised the work in progress to decentralise many of the information management functions of FAO, such as data processing for FAOSTAT, and the associated need to strengthen the capabilities of Members to undertake their new roles. It was noted that guidance and follow-up would be required from the Organization on the new institutional arrangements, methodologies, and tools.

Harmonization and Standards

29. The Secretariat introduced the section of the Report of the Secretariat (FAO/COAIM-2/3) referring to Harmonization and Standards. The Secretariat presented a draft specification for an Agricultural Metadata Element Set (AgMES) providing a proposed set of metadata elements for describing resources in the domain of agriculture, based on the Dublin Core Metadata Initiative.

30. The Secretariat reiterated FAO´s firm commitment to maintain and further strengthen AGROVOC, and informed the Consultation that the Chinese and Arabic versions of AGROVOC were presently being finalised, and that other language versions are also being worked on. The Secretariat referred to the valuable information expertise and knowledge based on 25 years of experience with AGROVOC, and that this could be used as the building block for a new multilingual normative tool referred to as the Agricultural Ontology Service (AOS). The

secretariat explained in detail how the AOS project will have a direct impact on the objective of improved language coverage.

31. The Secretariat then discussed the need to develop tools and information systems that are compliant with the proposed new standards. A number of these tools such as the FAO Information Finder, the Information finder developed with the CGIAR to access CG Centre information resources, and the FAO country profiles, and an XML "Information Bus" prototype using the new web-services technology were provided as examples.

32. The Consultation congratulated the Secretariat for its progress report in the area of Harmonization and Standards, and supported in principle the described activities. A number of inquiries were made, particularly regarding the location of the XML specifications and use of AGROVOC in the field, which the Secretariat clarified. The Secretariat also provided examples of tools adopting AGROVOC to assist in information retrieval.

VI. Agenda item 4: Programme of work

33. The Secretariat provided introductory remarks to the document by emphasising that it should be considered within the scope of the Strategic Framework and as already reflected in the Medium Term Plan 2002-2007 of FAO.

34. The Delegates recognised the Secretariat´s efforts in preparing the document and welcomed the efforts of the Organization in raising awareness and increasing the participation amongst Members in this area.

35. The Consultation pointed out the need for the Secretariat to clearly state how FAO would contribute to improving the capacities of decision-makers, professionals and the public at large in Member States to access and use agricultural information.

36. The Delegates expressed the need for FAO to have a coherent strategy for WAICENT in order to co-ordinate information activities across all technical divisions of the Organization and avoid duplication of efforts.

37. The Delegates also requested a more effective mechanism for providing inputs into the programme of work FAO in support of WAICENT, which would fit within the biennium budget formulation schedule of the Organization.

38. The Consultation emphasised the need for FAO to prioritise the strengthening of countries´ capacities to produce quality data and information in the programme of work of WAICENT.

39. Delegates highlighted the importance of considering regional priorities relating to WAICENT.

40. The Consultation requested the Secretariat to ensure that the conclusions and recommendations of the COAIM feed into the governance system and policy of the Organization.

VII. Agenda item 5: Other Matters

41. Under this agenda item, a summary was presented of the discussions held in the different side events convened by the Secretariat during the Consultation. The Consultation recognised the valuable information provided, and a summary of the discussions and conclusions resulting from the side events are included in Annex II of this report.

42. The delegates proposed that for the Third Consultation, the Secretariat should include in the agenda of the meeting the presentation of national activities on agricultural information management developed by Member States. Also, it was requested to convene an expert meeting to review mechanisms to strengthen FAOSTAT activities at national and regional level.

43. In the context of the language policy, the need was stressed for articulating an agricultural information management system with a full and fair language policy based on national and regional agricultural information systems and in co-ordination with other international organisations.

44. The Consultation agreed to hold the next Consultation on Agricultural Information Management in Rome, in June 2004.

VIII. Agenda item 6: Approval of Report of the Meeting

45. The Rapporteur submitted a draft of the Final Report of the Second Consultation on Agricultural Information Management to the Plenary. After incorporating the modifications deemed pertinent by various delegations, the report was approved by the Consultation, included the recommendations listed in Annex I of this report.

IX. Agenda item 7: Closure of the meeting

46. The meeting concluded its work at 18:00 hours on 25 September, 2002. Closing remarks were made by the Chairperson expressing gratitude to the participants and others involved in the Consultation before officially closing the Second Consultation on Agricultural Information Management.

ANNEX I

Recommendations

The participants present at the Second Consultation on Agricultural Information Management, held in Rome, Italy, from 23 to 25 September, 2002, recommended that FAO:

1. Implement a balanced language policy for the FAO Web site;

2. Develop an evaluation system for indicators of impact of information in promoting food security and sustainable development in local communities, including an analysis of the different users and their information needs;

3. Develop an agricultural information management system with a balanced language policy based on national and regional agricultural information systems in co-ordination with national focal points and other international organisations, as appropriate;

4. Engage Member States in planning and preparing the agenda of the next Consultation;

5. Include in the agenda of the Third Consultation, the presentation of national activities on agricultural information management developed by Member States;

6. Prioritise the strengthening of countries´ capacities to produce quality data and information in the programme of work of FAO in support of WAICENT;

7. Prioritise national FAOSTAT systems in the modernisation of FAOSTAT, and convene an expert meeting to define the requirements, and review mechanisms to strengthen FAOSTAT national systems;

8. Support the Livestock, Environment and Development (LEAD) initiative as a methodological framework for information management in research and development, and its implementation;

9. Develop tools and information systems that use the new web-services technology such as semantic and ontology development to enhance the search facility and make it more intelligent;

10. Support the creation of an informal Inter-agency Advisory Group (IAG), of international organisations to improve complementarity and collaboration in capacity building efforts in information management;

11. Present a report of the activities developed by the IAG during the next Consultation;

12. Work with Member States to establish national and regional WAICENT focal points, as appropriate for improved information exchange at national, regional and international levels;

13. Articulate and promote the development of national and regional priorities on agricultural information management;

14. Formalise institutional arrangements of the WAICENT focal points, according to national priorities and needs on agricultural information;

15. Work with Member States to mobilise financial resources in order to:

    a) integrate cross cutting issues such as gender, information and communication, as well as ICTs into policies, and undertake concrete measures to set up appropriate infrastructures, applications and capacity building for sustainable models in order to produce, access, and share appropriate and relevant information with rural communities (men and women); and

    b) develop the following activities: production, adoption and dissemination of gender-disaggregated data (GDD), training materials and guidelines; creation of demand for GDD; development of a dissemination strategy; retabulation of existing data; and integration of a gender perspective in new data;

16. Develop a coherent strategy for WAICENT in order to co-ordinate information activities across all technical divisions of the Organization and avoid duplication of efforts, and a clear mechanism for the monitoring and evaluation of this strategy;

17. Support the development of the Inventory of Available Agricultural Technologies (TECA) methodological framework including its validation in the field and the development of content in the languages of the Organization;

18. Develop an agricultural information management platform for evaluating and promoting comparative analysis of agricultural policies;

19. Ensure that the outcomes and recommendations of the COAIM feed into the governance system and policy of the Organization.

ANNEX II - SIDE EVENTS

Information Services for Rural Communities: national frameworks and grassroots systems

Rome, Italy, 23 September 2002
Ethiopia Room
(15:00 - 16:30)

Background

Improved household food security requires good decision making by rural women and men, for which better grassroots information availability is imperative. The importance of better information for rural dwellers was emphasised by participants at COAIM; and also by the World Food Summit and the new Rural Development Strategy of the World Bank. Rural communities information requirements are not limited to market prices and production technologies: they also need a wide variety of other information such as availability of agricultural support services, government regulations, crop plantings, disease outbreaks, adaptation of technologies by other farmers, wages rates, and so on. The content of the information services needs to reflect their diverse circumstances and livelihoods (i.e., their farming systems), from coastal artisanal fisherfolk to Sahelian agro-pastoralists.

Furthermore, measures to improve information availability (i.e., to strengthen the local information systems) need to take into account the diverse sources of information from friends and relatives, local traders, extension agents, news services, etc. Often marginal rural communities face widening information gaps and thus, without better information, find it difficult to compete as countries become more globalised. The key issues are (a) how national managers of agricultural information and rural development can identify broad farming systems across a nation with different identifiable information needs and (b) how government, private sector and civil society can cost effectively and sustainably improve local grassroots information systems, especially in remote areas.

In relation to the different information needs of producers, the FAO/World Bank Study on *Farming Systems and Poverty* defined 72 farming and livelihood systems across six developing regions (see www.fao.org/farmingsystems/) providing a broad framework for the identification of generic information needs of rural populations. However, national information managers may find it useful to disaggregate these broad zones for the purposes of national information management.

The Study also examined ways to achieve the Millenium Development Goal of halving poverty by 2015. Of five common farm household strategies for halving poverty, the most important were on-farm diversification, including value-added activities, and off-farm income. The information requirements for diversification are much greater than for intensification of existing patterns of production. In December 2001, a workshop organised by the Agricultural Support Systems Division of FAO on improving information availability to farmers and entrepreneurs concluded that strengthening local community information systems was feasible, and a development priority.

The information and communication technology revolution has greatly increased the possibilities for disseminating and sharing knowledge. The Food and Agriculture Organization of the United Nations (FAO) has the mandate to "collect, analyse, interpret and disseminate information relating to nutrition, food and agriculture", as well as fisheries and forestry. Knowledge and information are essential for achieving global food security, which is a major goal for FAO. COAIM has also noted that modern information technologies should be complemented by traditional communication channels and techniques – improved communication and information networks in

rural areas using multi-media communication tools can provide farmers with relevant and appropriate information that can positively impact their ability to achieve higher agricultural productivity. Information can be packaged and disseminated through local media, such as rural radio, in appropriate formats and languages to respond to farmers needs. At the same time multi-media networks can provide useful mechanisms for farmers´ feedback, facilitating bottom-up articulation of development needs and perceptions, and contributing with local content based on their knowledge of successful practices.

Summary Report

Mr. John Dixon, Senior Officer - Farm Management and Production Economics Service (AGSP) introduced the regional farming system frameworks of the FAO/World Bank Study and highlights of the AGS Workshop on the role of local information systems in improving household decision-making and the utilisation of agricultural services, and concluded with a number of potential priority action areas.

Mr. Riccardo del Castello, Communication Officer of the Extension, Education and Communication Service (SDRE), reported on a number of practical experiences on rural communication networks and multimedia approaches, in particular on the integration of ICTs and rural radio.

Participants recognised the importance of local information for improved household decision-making and livelihoods. After a plenary discussion on principal issues in improving information availability, two working groups were formed to identify priority actions to improve local information availability at local level and at higher level, including national level.

Principal issues

Participants identified the following principal issues that needed to be addressed:

Build new systems, or strengthen existing local systems?

Identify entry points to support information systems

Pilot local information systems in different situations and analyse effectiveness

Link local and national level systems

Document/replicate innovation/successes, and scale up local achievements

Who should be doing what for these systems?

How should these systems be managed? (Updating etc.)

Government policies to facilitate these kinds of systems. Facilitating the flow of information.

Intellectual property consideration issues.

Quality assurance of the system. How can the user be sure of the quality of the information? Is there any authority or should there be one?

How are community needs established? A social process rather than an external process.

Approximately 33 participants attended the side event. The Chairperson was Ms. Edith Hesse, Head, Information and Documentation, International Center for Tropical Agriculture and the Rapporteur was Mr. Rajesh Sood, database developer/information systems analyst, International Plant Genetic Resources Institute.

Conclusions

Participants made the following conclusions for priority actions.

At the local level:

4. Improving local information availability to clearly identify target communities, because communities´ needs are so diverse;
5. The various existing or potential information providers need to be identified;
6. It is essential to work within existing planning processes including Poverty Reduction Strategy Planning (PRSP) where they exist, rather than erecting alternative procedures and processes;
7. Where appropriate, work with existing information sources with a reputation for reliable and accurate information;
8. Integrate agricultural with non-agricultural information, in order to meet the diverse needs of communities and to exploit synergies in information provision and utilisation;
9. Identify partnerships at local level including stakeholder groups or focal points.

At national and higher level:

10. A national consortium of stakeholders (NGOs, government organisations, private sector, farmer organisations, research centres, etc.) should be established in order to facilitate the operation of the information system, i.e.,

    1. validate content
    2. co-ordinate infrastructure
    3. propose/advise on policies
    4. set up business plan

11. Mechanisms are required for the dynamic institutionalised participation of local communities in the stakeholder consortium, including the monitoring of their needs and the gathering of information from communities to feed the system;
12. Government should implement policies to facilitate the development and equitable access to technologies and information flows at all levels.
13. In relation to Intellectual Property Rights (IPR), the stakeholder consortium should advise the Government, which should then develop an appropriate legal framework to manage IPR within the established international system.
14. International bodies such as FAO, have an important role to play in supporting national level efforts to establish information services for rural communities: in particular, capacity building initiatives and activities.

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LEAD Virtual Centre "Research and Development on Global Livestock and Environment Interactions"

Rome, Italy, 23 September, 2002
India room
(16:00 - 17:00)

Background

To increase communication and enhance the relevance of research and development issues regarding livestock-environment interactions, the Livestock, Environment and Development LEAD Initiative has established a Virtual Centre for Research and Development. This Virtual R&D Centre promotes multidisciplinary research and development activities, and increases awareness among key stakeholders of the complex interactions of human needs, animal production and the sustainability of global natural resources.

A virtual centre is similar to a traditional research and development centre in that it brings together scientists from different disciplines to address important research and development issues. The key difference is that a virtual centre relies on electronic communications technologies to help scientists and development workers plan and implement their collaborative efforts and share data, information, and knowledge. While there are, of course, many advantages to the traditional approach of bringing scientists to a central location so that they can interact both formally and informally, there are also distinct advantages associated with setting up a virtual centre, including:

15. scientists from developing countries do not need to leave their home countries where their expertise is often in very high demand, in order to participate in international research and development initiatives;
16. collaborative research and development initiatives can bring together the most capable, experienced scientists in the world instead of being limited to individuals whose institutional or family responsibilities allow them to relocate;
17. many research and development projects can benefit greatly by conducting research in a wide range of different environments, instead of only in environments in close physical proximity to a central research centre and a few outreach sites.

LEAD´s approach to research and development is to provide decision support, test and develop novel concepts, mainstream and create awareness creation and; provide policy advice and technical assistance around critical livestock and environment hot spots.

The functions of the Virtual Centre are structured along those different environmental hot spots in regional platforms and as a global research network.

The LEAD Platforms provide communication and networking facilities around particular thematic issues identified in their regions. The main thematic issues are: wildlife/biodiversity, deforestation, involution of mixed farming systems, industrial pollution, land degradation and global environmental effects in relation to livestock production. The LEAD Platforms operate in English, French and Spanish, and additional Language Platforms in Chinese, Portuguese and Russian are being developed.

The LEAD Research Network serves as the hub for information exchange of the LEAD research projects in the field. Acting as a complement to the LEAD Language Platforms, registered researchers can exchange data, documents and links, and have access to shared resources all through a Web browser. The LEAD Research Network also acts as a forum for scientific debate and provides decision support tools for research, extension and policy formulation.

Summary Report

This side event illustrated that LEAD´s approach to research and development is to provide decision support, test novel concepts, creation of awareness; and provide policy advice and technical assistance around critical livestock and environment issues.

The Virtual Research and Development Centre relies on electronic communications technologies to help scientists and development workers plan and implement their collaborative efforts and share data, information, and knowledge.

The functions of the Virtual Centre are structured along the different environmental hot spots in regional language platforms and as a global research network.

The LEAD Language Platforms provide communication and networking facilities around particular thematic issues identified in their regions. The LEAD Platforms operate in English, French and Spanish, and additional Language Platforms in Chinese, Portuguese and Russian are being developed.

The LEAD Research Network serves as the hub for information exchange of the LEAD research projects in the field. Working as a complement to the Language Platforms, the LEAD Research Network also acts as a forum for scientific debate and provides decision support tools for research, extension and policy formulation.

Approximately 33 participants attended the side event. The Chairperson was Mr. Henning Steinfeld, Senior Officer, Livestock Information, Sector Analysis and Policy Branch (AGAL) and the Rapporteur was Mr. Mauricio Rosales, Programme Offcier, Livestock Information, Sector Analysis and Policy Branch (AGAL), FAO.

Conclusions

The main conclusion is that this methodological framework for research and development can be adopted as a model to be implemented by other technical divisions in FAO.

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Inventory of Available Agricultural Technologies

Rome, Italy, 24 September, 2002

India Room

(10:00 - 11:00)

Background

Access to information on technological options can facilitate an active involvement of beneficiaries in the choice of productive strategies. In addition, drawing on technology developed and in use elsewhere not only avoids duplication of effort but can also contribute to the relevance, effectiveness and efficiency of national agricultural research systems (NARS). In recognition of the above, two FAO Expert Consultations on Technology Assessment and Transfer in Asia and Africa in 1992 and 1998, respectively, recommended the creation of inventories of available technology in support of technology transfer and use.

A prototype of a Web-based, interactive and portable platform to document and share information and knowledge has been produced that aims to facilitate access to proven technologies, by allowing for a preliminary technical, socio-economic and environmental assessment and providing links to primary and secondary sources of information and knowledge.

Summary Report

Mr. Ralf Kwaschik, Consultant of the Research and Technology Development Service (SDRR) introduced the background and history of technology assessment and transfer in FAO. He then explained the Technology for Agriculture (TECA) System´s purpose and objectives and the main considerations in development of TECA, i.e., to produce a light, portable, Web-based as well as stand-alone decentralised tool and platform for a network of databases, with a metadata standard for information exchange. He concluded with a number of principal issues to be discussed with regard to the future development of TECA. Finally, the system and its functionalities were presented to the participants.

Mr. Giorgio Lanzarone - WAICENT/FAOINFO Dissemination Management Branch (GILW) reported on the technical and design aspects of the system, highlighting TECA´s portability and XML export and import facilities, as well as the Data Type Definition (DTD).

The moderator, Mr. Perez-Trejo - FAO/WAICENT Manager then opened the floor for discussion.

Discussion and principal issues

TECA was very well received by the participants at the side-event. In the ensuing discussion, a number of issues related to content development and improvement of the database structure were raised. The following needs were identified:

18. the establishment of partnership for its development;
19. the identification of focal points for quality control;
20. the creation of contacts and linkages with other interested parties who already have technology inventories;
21. the promotion of the platform.

Several participants expressed their interest in establishing partnerships with FAO for content development and the improvement/adaptation of the database structure; a specific comment was made regarding the inclusion of experts in the records.

The side-event was attended by 37 participants. The Chairperson was Ms. Elizabeth Arciniegas, Ministry of Agriculture, Colombia, the Rapporteur was Mr. Javier López Velarde, Ministry of Agriculture, Peru, and the moderator was Mr. Francisco Perez-Trejo, WAICENT Manager, GILD.

Conclusions

Support should be given to the development of the TECA methodological framework, including its validation in the field, and the development of content in the languages of the Organization.

A progress report on the development of TECA will be provided at COAIM 2004.

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Gender and Agricultural Information Management

Rome, Italy, 24 September 2002

Iran room

(11:00 - 13:00)

Background

The information and communication technology revolution has greatly increased the possibilities for disseminating and sharing knowledge. The Food and Agriculture Organization of the United Nations (FAO) has the mandate to "collect, analyse, interpret and disseminate information relating to nutrition, food and agriculture", as well as fisheries and forestry. Knowledge and information are essential for achieving global food security, which is a major goal for FAO.

In its Gender and Development Plan of Action, FAO has recognised that globalisation and new information technologies are transforming the way that production is organised and information shared around the world. These changes could accelerate progress toward gender equality but unless policy makers, practitioners and communities themselves give attention to gender when considering the opportunities and risks, and unless women have a voice in how these new technologies are developed and deployed, these new technologies could very well exacerbate existing inequalities.

ICTs are no longer considered a luxury but an essential instrument for achieving sustainable development. The digital-divide becomes all the more alarming in the context of rural communities who face further marginalisation and widening information gaps than those closer to urban centres. The challenges faced in rural areas include access to infrastructure, training and relevant content in local languages as well as ensuring that the needs of rural communities are reflected in national ICT policy.

Rural women and girls usually have less access than men to information and to new technologies. Without equal access to information, they are at a disadvantage in making informed choices about what to produce and when to sell their products. Lack of information also limits their influence in their communities and their ability to participate in decision-making. On the other hand, if women gain access to information technologies, they will benefit from increased educational opportunities and channels for better networking.

Also, FAO is committed to building country capacity to integrate analysis of environmental, social and economic dimensions of development and sustainability issues at global, regional and national levels. FAO´s *Strategic Framework* (2000-2015), *World Food Summit Plan of Action* and successive FAO *Gender Plans of Action* have recognised the importance of gender-disaggregated data (GDD) in food security policy and planning.

However, FAO recently observed that nearly all Member States face various difficulties in producing and using gender-disaggregated data and statistics. Building on its experience working with data producers and users, especially in the context of the World Census of Agriculture (ESS/SDW), FAO has increased its support to Member States to assist in this area. From 2000 to 2002, the Gender and Development Service (SDWW) developed and field-tested a GDD training methodology and materials to help improve the skills of agricultural data producers such as statisticians, planners, and policy analysts.

As one follow-up to these workshops, FAO has worked with Member States to re-examine existing data sets in order to produce sex-disaggregated databases that can be used with decision-support tools in agricultural and rural development policy formulation and planning. Reworked data can also provide a basis for conducting a gender analysis for a more in-depth understanding

of agriculture and to introduce a gender dimension into national systems of statistical data production and use.

Summary

The purpose of the side-event was two-fold: i) to advise Members on the importance of integrating gender, information and communication, including ICTs, in all policies in agriculture and rural development; and ii) to inform about FAO´s policies and programmes in promoting gender-disaggregated data and information, and more particularly the approaches developed to training of agricultural statisticians, planners and analysts.

Conclusion

On gender and ICTs

In its Gender and Development Plan of Action, FAO has recognised that globalisation and new information technologies are transforming the way that production is organised and information shared around the world. These changes could accelerate progress toward gender equality but unless policy makers, practitioners and communities themselves give attention to gender when considering the opportunities and risks, and unless women have a voice in how these new technologies are developed and deployed, these new technologies could very well exacerbate existing inequalities. This concern was also echoed in the Declaration adopted at the 2002 Know-how Conference in Kampala, Uganda.

On gender and disaggregated data

FAO's *Strategic Framework* (2000-2015), *World Food Summit Plan of Action* and successive FAO *Gender Plans of Action* have recognised the importance of gender-disaggregated data (GDD) in food security policy and planning. However, FAO recently observed that nearly all Member States face various difficulties in producing and using gender-disaggregated data and statistics.

Therefore it was concluded that

1. The following key points of the Kampala Declaration be endorsed:

- an enabling environment for gender-sensitive information policy is created through sensitisation of policy-makers and legislators;
- concrete measures are undertaken to set up appropriate infrastructure and applications and capacity building for sustainable models for producing, accessing, and sharing information appropriate and relevant to rural communities;
- gender is clearly integrated in all themes to be addressed at the World Summit on Information Society 2003 & 2005.

2. Funding for cross cutting issues like gender, information and communication as well as ICTs be mobilised (specifically for policy formulation; research, case studies, publications, training manuals & guidelines, workshops and networking; support of offline communities with rural radio, listening groups and traditional media).
3. Gender, information and communication as well as ICTs, be integrated across all policies.
4. Adequate human and financial resources be mobilised for the realisation of the following activities:

- GDD training materials and guidelines be produced, adapted and disseminated;
- demand for GDD be created;

- dissemination strategy be developed;
- existing data be retabulated;
- gender perspective be considered in new data.

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Investing in agricultural information: issues and options for senior managers (Panel Discussion)

Rome, Italy, 24 September 2002

Mexico Room

(15:00 – 16.30)

Background

Information technologies have been widely adopted across the public and private sectors in agriculture. Senior managers are now faced with a second generation of issues related to effective information management using conventional communication channels as well as new technologies, and are increasingly preoccupied with establishing strategies for their organisations.

This area of concern has been reflected in the growing number of publications over the last ten years seeking to give managers advice on how information and information technologies can be more effectively employed as a means of improving the performance and impact of organisations. For example, the United Nations Commission on Science and Technology Development (UNCSTD) in its publication *Knowledge societies: information technology for sustainable development*, notes "ICTs are increasingly a focus for policy makers and corporate strategists concerned with development issues". In a publication from the Financial Times, entitled *Mastering information management* and aimed mainly at commercial enterprises, it is argued that senior managers have come to realise "that the management of information and information technology is critical to their strategy execution and must be mastered".

The strategic issues to be resolved have technical, social and financial aspects. Like their counterparts in the private sector, managers operating in the field of agricultural development need to make well-informed and smart investment decisions.

Approximately 40 participants attended this side event. This session was organised by CTA (the ACP-EU Technical Centre for Agricultural and Rural Cooperation).

Summary Report

The introduction to the panel discussion centred on the context in which information management was being approached by international development agencies and their collaborators. One of the main challenges facing those entities was decision-making on investment. It has long been evident that many institutions are not equipped to provide answers to the questions (1) what is an appropriate level of investment in information technology, information content management and dissemination? (2) what are appropriate decision criteria in relation to these investment decisions? These are areas in which the FAO and CTA have some expertise and experience so they were exploring the most appropriate ways of supporting them in this regard.

The panellists explained that in information and IT management there is a great deal of confusion about what constitutes the service termed 'information'. It was therefore not surprising that there should be an equal lack of clarity as to exactly what its management involves. In addition to limited knowledge, decision-makers in all sectors are faced with rapidly gathering technological changes - a veritable technological revolution in fact – addition to a perception that there is unjustifiably restricted funding.

In order to facilitate the discussion of this issue the Chairman posed the following questions:

30. why do we invest in agricultural information?
31. where do we expect most such investment to come from?
32. what resources and/or activities are potential candidates for investment?
33. what criteria should senior managers use to make investment choices?

Principal Issues

The ensuing debate suggested that:

34. information products cover a wide and ubiquitous range of products and services. At the same time while investment costs are relatively easy to measure, benefits from such investments are not. As a consequence it is difficult to be certain about the impact of the information 'product' or service;
35. although there is a perception that financial resources available for investment in information are very limited it is also evident that even in low-income states there is a significant and growing level of investment in IT. The problem is that in many states such investment is typically in the technology or hardware. However, the most critical need may well lie elsewhere. The importance of IT management for example, as opposed to equipment is frequently overlooked;
36. the first step required to enable entities to move away from this fetish of technology acquisition, often found among senior managers who have little idea of needs in terms of complementary inputs associated with such hardware, is to recognise an determine the role, capacities and needs of different actors/stakeholders in the sector;
37. since most agricultural organisations do not have the financial or human resources to perform a full range of information management tasks (managing IT, collecting and storing data, developing content, and disseminating results, for example) some organisational means need to be found to take advantage of the complementarities which may exist between the various entities. Partnerships are important in this regard;
38. similarly in the search for funding and the finance of investment the relationship between public and private sector agricultural organisations is coming increasingly under scrutiny. It is increasingly being recognised, as a consequence, that far from being a threat, newer private sector organisations may actually be a source of political, financial, and programmatic support to older public organisations;
39. there is scope to better utilise the existing stock of capital, the product of past investment decisions. A number of proposals were raised in this context including sharing content (by means of CD-ROMs, for example) and defining criteria for strategic partnerships.

Conclusions

Participants felt strongly that agricultural organisations should place more emphasis on the development of information plans to address the above issues. It was argued that currently, many agricultural organisations appear to make their investments in information products and services largely on an *ad hoc* basis. The obvious costs in terms of duplication and waste are avoidable. Information activities and resources can, and should, be planned.

More specifically, participants noted that a good information plan for an agricultural research, education, or extension organisation should:

40. provide for demand-driven investments in information which are based on prior assessment of user needs;

41. give highest priority to investment, which emphasizes content and management ahead of technology per se;
42. facilitate public-private partnerships, as well as partnerships between agricultural and non-agricultural organisations;
43. take account of cost-benefit considerations as far as possible.

Turning to the process it was concluded that arrangements should be made to ensure that dialogue and exchanges of views between users, 'technies', policy-makers and investors takes place during the implementation phase. Arrangements for 'feedback' were deemed crucial in this regard.

Further, an important input to such plans would be the promotion of organisational capacity to assess trends in information. This is imperative for the formulation of appropriate decision-criteria for choosing among alternative information investments.

Finally, participants concluded that agricultural organisations should initiate periodic/regular programmes to sensitise policymakers and senior managers to the importance of information. One indicator of the effectiveness of such programmes should be the emergence of information "champions" who can facilitate the implementation of information programmes and plan for sustainability.

FAO, CTA, and the International Service for National Agricultural Research (ISNAR) - in collaboration with other international and national organisations - will develop these ideas into a comprehensive package for policymakers and senior managers.

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AGRIS

Rome, Italy, 24 September, 2002

Malaysia Room

(16:30 - 18:00)

Background

The first COAIM in June 2000 recognised that AGRIS should become "a key enabler and catalyst to establish a new model of agricultural information management". Furthermore, it was agreed that FAO should develop AGRIS into a capacity building initiative as well as an information system. The AGRIS network now has 201 Resource Centres, which vary in their resources and level of participation in the network, and opportunities exist to improve the effectiveness of the initiative through enhanced collaboration.

The document discussed during the side event described a strategy for strengthening AGRIS in several ways, which would go beyond merely enhancing the existing central bibliographical database. The proposal is to enable access to electronic versions of documents and publications in full text on science and technology in agricultural development and food security, including addressing problems related to physical accessibility, language, and intellectual property issues. Indeed, the series of changes proposed imply a radically new approach to network participation, based on an expanded range of partners and stakeholders.

Delegates were invited to attend this session to discuss the new strategy for the AGRIS network presented in the draft document entitled "AGRIS - A strategy for an international network for information in agricultural sciences and technology within the WAICENT Framework" (FAO/COAIM-2/Inf 6).

Approximately 70 participants attended the side event, including representatives from 26 AGRIS Resource Centres. The Chairperson was Ms. E. Hesse, Head of Information and Documentation of the International Center for Tropical Agriculture and the Rapporteur was Ms. F. Le Hunte-Ward, Technical Information Specialist (Multimedia), FAO.

Summary and Conclusions

The two documents presented to participants were FAO/COAIM-2/Inf 6 "AGRIS - A strategy for an international network" and FAO/COAIM-2/Tech2 "AGRIS: Guidelines for Description of Information Objects". These were introduced briefly by Mr. S. Katz , Chief of the FAOINFO Dissemination Management Branch and by Mr. J Keizer, Information System Officer, FAO.

The participants supported FAO´s proposed approach to the development of AGRIS as outlined the document "AGRIS - A strategy for an international network". The strategy was especially commended for the emphasis on strengthening national capacities.

Participants encouraged FAO, together with AGRIS Resource Centres, to work in all countries (developed and developing) to strengthen national capacities to manage their information in document form, and where relevant to make use of the various methodologies, resources and tools provided by FAO (e.g. WebAGRIS, AGROVOC, AGRIS Categories). Countries should continue to contribute their information to the main AGRIS database, as the only non-commercial global repository of agricultural knowledge.

The coverage of AGRIS was discussed. Some participants emphasized that AGRIS has in the past been valuable for accessing bibliographic data from developed countries such as the USA, UK, Australia, Canada, Germany, and others, and that input has decreased from 170,000 in 1996 to 60,000 in 2001. The lack of updating of such data in the main AGRIS file distributed on CD-

ROM has impeded the availability of these data for those developing countries where Internet access is limited, and requires those users with reasonable Internet access to search in many different national and/or commercial databases. It was concluded that FAO works with relevant organizations from developed and developing countries to ensure that their input is made accessible in a user-friendly and effective manner using AGRIS methodologies and tools.

During the discussion on FAO/COAIM-2/Tech 2 "AGRIS: Guidelines for Description of Information Objects", the urgent need for a new AGRIS metadata standard was confirmed by the participants. There was general agreement that the new guidelines should be distributed to the Resource Centres, and discussed as widely as possible for finalization before mid-2003.

FAO strongly reaffirmed its commitment to the continued development of AGRIS, especially in the light of developing country needs to mobilise their own information.

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Information and Communication in support of Rural Poverty Elimination and Food Security

Presentation and discussion of a joint FAO, DFID, ODI project

Rome, Italy, 25 September 2002

Ethiopia Room

(10:00 – 11.30)

Background

Information and communication are recognised as essential components of the development process, to empower poor communities and inform development agencies and policy makers alike, and for linking and informing decision-making processes at every level. Yet information and communication systems are rarely well integrated into development strategies and programmes. The rush to provide Internet access in developing countries is threatening to replace well-established and effective two-way communication systems with a one-way information delivery system, and create a digital divide between those who can afford it and those who can't.

The research looks specifically at the role of communication and information in livelihood approaches, which are being widely adopted by governments and development agencies. Livelihood principles include focusing on people, using participatory approaches to help them manage their assets more effectively, facilitating linkages between micro-level livelihood systems and the policy environment, stressing outcomes rather than outputs, fostering interdisciplinary teamwork, and encouraging partnership between government, communities and the private sector. Information and communication are critical components of this approach, essential in supplying the information required by poor people in order to make decisions on livelihood strategies, and to supply information required by institutions responsible for making decisions regarding the policies and processes to support those strategies.

The research identified seven key recommendations for improving the contribution of information systems to poverty reduction and food insecurity.

Summary Report

Mr Dylan Winder, Renewable Natural Resources Information and Communication Manager, Rural Livehood Department, provided some background on the collaboration between DFID and FAO on sustainable livelihoods issues in sectoral and intersectoral programmes. Mr Stephen Rudgard, Chief, WAICENT/FAOSTAT Data Management Branch, described the background to the study and an overview of the methodology. Mr John Young, Research Fellow, Overseas Development Institute, delivered a PowerPoint presentation covering the main findings of the study, and drawing participants´ attention to a two-page summary and a CD-ROM providing more information, which were also available to the participants.

Principle Issues

The seven key recommendations from the study were described as follows, and illustrated with examples from Ghana, India and Uganda.

44. **Determine who should pay:** A new consensus is needed on who should pay for communication and information services for poor rural communities;
45. **Ensure equitable access:** New systems must deliver the right kind of information in the right format, for poor people to ensure that existing inequalities are not exacerbated;
46. **Promote local content:** It may be more useful to promote more information sharing between local institutions than bring in new information from outside;
47. **Strengthen existing policies and systems:** Further work is needed to strengthen communication policies, and new systems should seek to build on existing systems;
48. **Build Capacity:** Capacity building is needed at all levels, to equip people with the new skills necessary to develop and manage new systems;
49. **Use realistic technologies:** The most effective systems use realistic technologies that enhance and add value to existing systems;
50. **Build knowledge partnerships:** New technologies provide enormous opportunities to build knowledge partnerships that cross national, ethnic and social boundaries.

The key discussion points included:

51. **How to measure impact of information activities:** There was a consensus that few studies have been undertaken on the impact of information, and there are few well-developed methodologies able to do so.
52. **How to ensure information services are accessible to women:** Although there are examples of information services for women run by women (Grameen Phone, Swaminathan e-villages, J. R. Parry etc), others run by other (potentially) disadvantaged groups (e.g. the old), and many run by men, there are few which can cater for all needs.
53. **How to ensure the quality of information and avoid spreading rumours (e.g. some ethnic groups in Kenya believe that AIDS is a form of bewitchment rather than a viral disease):** It is not possible to control the content and quality of all information – but efforts should be made to ensure that public-service (i.e. government) information is factually correct.
54. **How to ensure information services do increase rather than decrease equity:** This is very difficult, but applying the Livelihoods Approach should ensure that the issue is considered during project design and implementation.
55. **The role of "Meso" institutions:** Farmers´ associations, co-operatives, community groups and other meso institutions are vital. The livelihood approach emphasises identifying and working with these institutions. There are many examples showing where this is already happening, and could be strengthened in the full country case study reports.
56. **The applicability of the approach in different cultures:** the approach should be applicable to all cultures, since it is really just a checklist of issues that need to be considered in each context. The resulting practical approach to improving information and communication may be very different, even in neighbouring villages.
57. **The evidence about what information poor people need:** there is little good information about what information people need. Most information and communication projects are supply-driven, or based on outsiders´ estimates of what information people need, but the emphasis in the livelihoods approach on local generation, or translation of information should ensure that the right information "evolves".

Conclusions

The participants concluded that:

The approach is valid and opportunities should be sought to learn more about the individual components of the approach, and to apply the approach holistically (opportunities are emerging in India and Uganda to do this).

More work should be done on:

58. Measuring impact, and developing methodologies and indicators of impact;
59. Information needs assessments.

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ANNEX III – List of Participants