Training Workshop on Capacity Building for Developing National Agricultural Information Systems (NAIS) of Bhutan, Cambodia, Laos, Mongolia, Myanmar, Timor-Leste and Vietnam

3-12 August 2004, AIT Conference Center, AIT, Pathumthani, Thailand

PROCEEDINGS in BRIEF

August 2004

Introduction

The Asia-Pacific Association of Agricultural Research Institutions (APAARI), with the membership of 20 national agricultural research systems from the Asia-Pacific region and several regional and international organizations, has been actively promoting ICM in ARD. Over the last few years, APAARI has organized several expert consultations dealing with the subject by bringing together diverse stakeholders on a common platform. The most recent expert consultation in December 2003 was the third organized by APAARI with the Global Forum on Agricultural Research (GFAR) as co-sponsor and it assessed the progress made by various NARS since the last such consultation in 2002; explored the existing opportunities for enhancing the role of ICM in ARD; and discussed potential improvements in the Asia-Pacific Agricultural Research Information System (APARIS), an APAARI initiative, by focusing on potential user-groups and their information needs. APARIS serves as a portal to information resources of member NARS and other regional and international ARD organizations. It also acts as an information link between NARS and the international ARD organizations. APAARI is committed to bridge digital divide by assisting NARS of developing countries to effectively use ICM in their common goal of providing food security and poverty reduction through agricultural development.

NARS of some countries of the region, including Bhutan, Cambodia, Laos, Mongolia, Myanmar and Timor-Leste are currently not the members of APAARI and hence been unable to benefit from the above expert consultations that have helped several member NARS in developing frameworks of their national agricultural information systems (NAIS). Vietnam has only recently become a member.

APAARI, in collaboration with GFAR, AIT, FAO-RAP, SDLEARN, UN-ESCAP, JIRCAS/NARO and AgriWatch, organized a training workshop on Capacity Building for Developing National Agricultural Information Systems (NAIS) of Bhutan, Cambodia, Laos, Mongolia, Myanmar, Timor-Leste and Vietnam during 3-12 August 2004 at AIT Conference Center, AIT, Pathumthani, Thailand.

Workshop Objectives

The training Workshop had two specific objectives:
(1) Train appropriate officers in principles of ICM and in identifying essential components of their respective NAIS
(2) Assist these officers in development of basic NARS web sites to disseminate NAIS keeping in view different user groups

Workshop Participants

There were 9 training participants from the above 7 countries, representing the information divisions of their respective NARS. The training was facilitated by 14 Resource Speakers/Persons -- from APAARI (4), FAO-RAP (1), AIT (2), JIRCAS/NARO (2), UN-ESCAP (2), SDLEARN (2) and AgriWatch (1).

Workshop Program

3 August (Day 1)	Orientation, Country Status Presentations, and NAIS Framework
4 August (Day 2)	ICM Basics: information, provider, user, and technical aspects of ICM in ARD
5 August (Day 3)	▪ Information Flow Models: information collection and processing ▪ FAO Tools & Resources
6 August (Day 4)	▪ ICM Implementation in ARD: essential components of a NAIS and basics of web site development and maintenance ▪ Finalization of prototype NARS web sites to deliver NAIS
7 August (Day 5)	▪ International and Regional Initiatives (SDLEARN, CABI, APAN, AgriWatch, etc.)
8 August (Day 6)	Study tour to International ICT Expo
9-12 August	▪ Participation in AFITA-WCCA 2004 in Bangkok to get an exposure to global, regional, and other national initiatives on ICM in ARD
12-13 August	▪ Follow-up Action Plan for their regular upgrade and maintenance ▪ Feedback Session and Departure

Workshop Proceedings

The Workshop was designed, through use of generic frameworks, tools and techniques, to enable participants to analyze, understand and learn about information and communications management in organizations engaged in agriculture research for development, especially at the National level, through a participatory approach. The format of the training workshop was to have brief presentations followed by group and individual working sessions. A Workshop Manual including the presentations, guidelines for group and individual activities and background reading material was developed and made accessible through a simple, web based user interface as all participants had access to a networked computer and other peripheral equipment. All workshop material, including a large amount of background material, was also included on a CD-ROM distributed to the participants. All the training material and outputs are also available on APAARI web site (www.apaari.org) under the Training section. The following are the workshop proceedings in brief:

Day 1: Inauguration, Orientation, Country Status Presentations, and NAIS Framework

There was a brief formal inauguration ceremony presided by Dr. Mario Tabucanon, Provost of AIT. Prof. Tabucanon congratulated APAARI for having developed a specific capacity building program to contribute in bridging the "digital-divide" in the Asia-Pacific region by assisting the participating countries in developing their National Agricultural Information Systems. Mr. P. K. Saha, APAARI Liaison Officer delivered the vote of thanks and highlighted the benefits of APAARI membership. This was followed by introduction of the Workshop and its objectives by the facilitators of the Workshop, Dr. Sahdev Singh and Dr. Ajit Maru. The participants, during the first workshop session, presented their country reports. Those countries that had two participants had a joint report by the participants. The country reports and presentations arranged country wise are available on the Workshop CD-ROM.

In the Second Workshop Session, Dr. Ajit Maru presented an overview of developing Information Systems for Agricultural Research and Development. He put forward several frameworks related to information systems, national agricultural information systems (NAIS) and each component of a NAIS such as systems for managing scientific and technical information, research data, research management, extension and outreach information and for agricultural learning.

Day 2: Need Assessment and Clientele Identification in NAIS Framework

On the 2nd Day of the Workshop, the participants were briefed on needs assessment of clients of NAIS. Through a group exercise, the participants in two groups, identified the clients of a NAIS, their needs and prioritized their clients list on the basis of services they, as a NAIS, could provide. This session was facilitated by both Dr. Sahdev Singh and Dr. Ajit Maru. Following this session, Dr. Maru made a brief presentation on Institutions, Structures and Processes that are needed for a NAIS. The participants, using the services they had identified for their NAIS as a base for discussion, identified the Institutions, Structures and Processes they would need to provide services in their NAIS.

Day 3: Information Flow Analysis for NAIS and FAO Information Tools and Resources

The 3rd day included Dr. Maru and Dr. Singh explaining the technique of process and information flow mapping and analysis as a problem solving technique for developing and improving information systems. In a working session that followed, the participants used this technique to analyze and develop two separate information services and their information systems.

Mr. Michael Riggs of FAO-RAP, in the afternoon session, described FAO's Tools and Resources for ICM in ARD. He also distributed several CD-based information resources and self-learning modules such as IMARK Resource Kit and demonstrated their use through a hands-on practice session.

Day 4: Development of a Web-enabled NAIS

Developing a web based information platform was the agenda on the 4th day of the workshop. Starting with how to develop a storyboard and use a web editor the participants were individually guided step-by-step by Dr. Sahdev Singh, Mr. Agus Prajogo and Dr. Maru through developing a Web based platform for their NAIS. The outputs of this session included prototype web sites of each participating country NAIS.

Day 5: Distance Learning, Agricultural Market Information Systems and Regional and Global Initiatives for ICM in ARD

In the morning of the final day of the Workshop, after a brief review of the Workshop by Dr. Maru, Dr. Robert Raab and Ms. Buenafe of SDLEARN presented about ICT based learning in agriculture and conducted a hands-on work session on e-learning using SDLEARN's web-based course on Digital Literacy. Mr. Sunil Khairnar, CEO of AgriWatch made his presentation on

Agricultural Market Information Systems in the afternoon. Dr. Qiao-Qiao Zhang of CABI introduced the participants to CABI information products. Dr. Seishi Ninomiya, NARO-Japan made his presentation on application of ICTs in Regional networking of agricultural projects. This was followed by two presentations by Ms. Bhava Dungana and Mr. Naylin Oo from UNESCAP on their organizations ICT and ICM related activities under the titles "UN-ESCAP e Community Centers" and "UN-ESCAP Program FADINAP," a regional fertilizer network.

The first part of training was concluded through a closing ceremony presided by Dr. Seishi Ninomiya, Chairman, APARIS Steering Committee. He presented all participants with Certificates of Achievement.

Day 6: Field Trip to *International ICT Expo* in Bangkok

On day 6 (August 8), the participating trainees visited the ***International ICT Expo*** organized in Bangkok from 4-8 August 2004. The International Expo had hundreds of booths of national, regional and international ICT organizations, both public and private. The Expo demonstrated various up-to-date and upcoming software and hardware technologies for emerging knowledge society.

Days 7, 8, 9: Participation in Joint Conference of Asian Federation for Information Technology in Agriculture (AFITA) and World Congress on Computers in Agriculture (WCCA)

The Asian Federation for Information Technology in Agriculture (AFITA) and the World Congress on Computers in Agriculture (WCCA) jointly organized an international conference from 9-12 August 2004 at the Four Seasons Hotel, Bangkok, Thailand. The AFITA/WCCA2004 conference provided forums for agriculture related professionals to exchange information on applications and developments in the use of IT. There were approximately 400 participants with more than 100 paper, poster and technical workshop contributions from various countries and organizations. Her Royal Highness Princess Maha Chakri Sirindhorn of the Royal Kingdom of Thailand graciously presided at the grand opening ceremony of the Conference on 9 August 2004 at 15:00 hrs. The conference was organized by following institutions: AFITA, AIT, ASAE, CIGR, EFITA, FAO, HAII, IAALD, JIRCAS, JSAI, MOAC, NECTEC, PanAFITA, UNESCO, and NSTDA.

In the Conference, APAARI was represented by Dr. Sahdev Singh, APAARI Assistant Executive Secretary; Dr. Ajit Maru, APAARI Resource Person and Dr. Ashraf Tanvir, APARIS Steering Committee Member. All 9 training participants also attended the Conference as the second part of their training program. They actively participated in APAARI contributions to the Conference. During the Conference, Dr. Sahdev Singh delivered a 90-minute technical workshop on Distributed Database Systems in Agricultural Research, chaired a paper presentation session on Information Resources and Databases and presented a paper on APARIS. Dr. Ajit Maru presented an APAARI study on status of ICT/ICM in ARD in the Asia-Pacific Region. The full papers and presentations of APAARI contributions are available on the official AFITA/WCCA 2004 web site http://www.afitaandwcca2004.net/.

Day 10: Informal and Formal Feedback on Training Workshop

On the last day of the workshop, Dr. Sahdev Singh and Dr. Ajit Maru had a 2-hour meeting with training participants. During the meeting, each participants filled the feedback form and made a brief presentation about his/her experience during the training. The compiled report of the feedback, highly positive, is presented on APAARI web site.

Conclusions

The following were the lessons learned from the conduct of this Workshop:

- There is strong enthusiasm in the participating countries to use ICT for agricultural and rural development.
- The skill levels needed for ICM and embedding ICTs in agricultural information systems in the participating countries are weak.
- A participatory mode with emphasis on working sessions for the Workshop was found to be successful.
- The design of the Workshop around frameworks, tools and techniques for ICM was found to be useful to convey the significance of ICM in NAIS within the short time available.
- Participants could develop a basic web based platform for a NAIS, though most had no exposure to web design and development.