ODL for Agricultural Development and Rural Poverty Reduction: A Comparative Analysis of Innovations and Best Practices in Asia and the Pacific

Scott McLean
Director of Continuing Education ◆ University of Calgary, Canada ◆ smclean@ucalgary.ca

Alexander G. Flor
Faculty of Information and Communication Studies ◆ UPOU, Philippines ◆ aflor@upou.edu.ph

Malcolm Hazelman
FAO Regional Office for Asia and the Pacific ◆ Bangkok, Thailand ◆ Malcolm.Hazelman@fao.org

ABSTRACT

This paper presents a research project aimed at understanding and improving the application of open and distance learning (ODL) strategies to the challenges of agricultural development and rural poverty reduction. The research studied five institutions in Asia and the Pacific with open and distance learning offerings in agriculture and/or rural development and documented innovative or exemplary practices in open and distance learning for agricultural development and rural poverty reduction. The analysis was based on a framework developed by the Food and Agriculture Organization for the conduct of distance learning projects on agriculture and rural development. This framework suggested that ODL should be undertaken for the right reasons, be sensitive to the context in which it is applied, make use of existing infrastructure with sustainable cost structures, engage stakeholders in participatory processes and use sound pedagogical and administrative models.

INTRODUCTION

Education and learning are widely recognized as essential to processes of development and poverty reduction. In many developing countries, issues of educational access, equity and quality have been identified as prerequisites to the achievement of development goals. Given the inadequacies of conventional systems of education, training and agricultural extension, many developing countries have introduced innovative approaches to open and distance learning (ODL).

Over the past decade, there has been a resurgence of international interest in distance learning and distance education as potentially useful strategies for addressing human development issues. This resurgence is rooted in part in the evolution of new

information and communications technologies and in part in the improvement of pedagogical and administrative models for facilitating learning at a distance.

Framework

In 2000 and 2001, the Food and Agriculture Organization of the United Nations (FAO) surveyed the experiences of ODL for agriculture and rural development in low-income countries [http://www.irrodl.org/content/v3.1/mclean.html]. From this survey, the FAO argued that to be effective in developing countries, ODL should:

- Be undertaken for the right reasons;
- Be sensitive to the context in which it is applied;
- Make use of existing infrastructure, with sustainable cost structures;
- Engage stakeholders in participatory processes; and
- Use sound pedagogical and administrative models.

Research Questions

In recent years, there have been numerous examples of institutions in developing countries using ODL strategies to address the challenges of agricultural development and rural poverty reduction. Much could be learned from identifying the common elements of successful innovations and best practices from leading institutions in this field.

The research looked into the practices of five institutions with open and distance learning offerings in agriculture and/or rural development to understand and improve the application of ODL strategies to the challenges of agricultural development and rural poverty reduction. These institutions are:

- National Institute of Agricultural Extension Management of India (MANAGE);
- Allama Iqbal Open University of Pakistan (AIOU);
- The Open Academy for Philippine Agriculture of the Philippines (OPAPA);
- Sukhothai Thammathirat Open University of Thailand (STOU); and
- University of the South Pacific, School of Agriculture of Samoa (SAFT).

To pursue the above objective, the following research questions were employed:

- What are some of the key innovations and best practices developed by the institutions in their efforts to apply ODL strategies to the challenges of agricultural development and rural poverty reduction?
- To what extent do these innovations and practices follow the five principles defined by the FAO?
- What are the common elements of these innovations and best practices?
- How could institutions from other developing countries successfully replicate or adapt these innovations and best practices?
- What recommendations should guide or facilitate the dissemination of successful innovations and best practices in this area?

METHODOLOGY

Design

The research was a collaboration by five institutions from Asia and the Pacific. It involved the development of case studies of their innovative or exemplary practices in open and distance learning for agricultural development and rural poverty reduction. These institutions were the National Institute of Agricultural Extension Management of India; Allama Iqbal Open University of Pakistan; The Open Academy for Philippine Agriculture of the Philippines; Sukhothai Thammathirat Open University of Thailand and lastly, University of the South Pacific, School of Agriculture of Samoa. The case studies were undertaken by collaborating researchers. Each researcher developed a report about the innovative or exemplary practices in ODL for agricultural development and rural poverty reduction in one institution.

Data Collection

Two phases of activity were involved in data collection. In Phase One, the collaborating researchers completed background papers and then held a workshop (28 – 30 June, 2005, at the FAO Regional Office for Asia and the Pacific, Bangkok) where they developed a template for the case studies. In Phase Two, the collaborating researchers completed the case studies and then held an online conference (1 – 15 February, 2006) hosted by the University of the Philippines Open University.

These case studies were constructed, assessed and compared in order to create policy and programmatic recommendations. The framework for analysis was developed through the work of the project investigators with the FAO.

RESULTS AND DISCUSSIONS

This section attempted to answer the research questions on common elements of the key innovations and best practices that relate to the five principles defined by the FAO.

Starting with the right reasons

In the context of the contemporary development of new information and communications technologies, there is a danger that ODL initiatives might be driven by the availability or attractiveness of innovative technologies, rather than by the educational needs of individuals and communities. It is important that ODL initiatives be firmly grounded at the intersection of the sponsoring organizations' mission and the needs and aspirations of the individuals and communities which would be involved in such initiatives. In some cases, ODL strategies are appropriate, cost-effective and sustainable means to address people's needs and aspirations. In other cases, another approach would be more suitable. Ultimately, in the quest to reduce poverty and promote the sustainable development of agriculture, ODL should be seen as a means to an end.

The five case studies shared in common a firm grounding in the mission of the institutions and the needs and aspirations of the communities they serve. Each of the case studies explored how an institution used ODL methods to address fundamental needs and aspirations of rural people.

The work of MANAGE is grounded in the recognition that a majority of the Indian population live in rural areas, and that most of these people derive their livelihoods from

farming or providing labour to agricultural and related enterprises. MANAGE works to strengthen the agricultural extension system across India, thereby fostering the provision of information, training and other inputs to facilitate the sustainable development of agriculture and related rural activities.

The case study about the AIOU focused on the programmes and services of the Institute of Mass Education (IME). The work of IME is based on the premise that basic and secondary education is fundamental to the ability of rural people to achieve sustainable increases to their income and quality of life. The IME provides basic, secondary and functional education for rural people across Pakistan. Some programmes are directed specifically at rural women, in recognition of the cultural and political-economic constraints in the provision of conventional education to women in rural Pakistan.

Behind OPAPA is the convergence of three concepts: eExtension, Distance Learning and eCommerce. It was envisioned to employ information and communications technology (ICT) to organize and deliver information to the farms. It makes available online content, learning, interactivity and advisory services. Lastly, it enables farmers to access information and connect to markets.

SAFT does not directly reach the rural poor. The primary target audiences of SAFT are current and prospective employees of ministries of agriculture, agricultural businesses and non-governmental organizations in the agricultural sector. In order to have an impact on agricultural development and rural poverty reduction, SAFT relies on making strategic linkages with those responsible for providing the programmes, services, policy decisions and advice that enable farmers to enhance their productivity and that enable farmers and other rural citizens to obtain and sustain increased levels of income and food security.

STOU is dedicated to addressing the inequality of educational opportunities. In Thailand as in other countries, only a minority have the chance to study above the legally required minimum level. The higher up the educational ladder one goes, the fewer are the opportunities for further studies. STOU is an “open” institution, both in the sense of having an open admissions policy and in the sense of being accessible from a distance. This openness provides particular advantages for rural people, who are less likely to possess educational qualifications, and who are less able to attend residential institutions based in urban areas. STOU also has an affordable tuition structure, enabling even those with relatively low incomes to improve their access to opportunities in society.

From these five case studies, it can be concluded that successful innovations and best practices in ODL for rural poverty reduction and agricultural development need to take place at the point where institutional missions and community needs intersect. The institutional mission is important because without institutional commitment and resources, ODL initiatives cannot be sustained. The needs of the community are important because ODL initiatives not grounded in a firm understanding of such needs are likely to either fail or produce outcomes that are of limited benefit.

Being sensitive to context

There is no universally appropriate model for designing and delivering distance education initiatives. The potential target audience for ODL initiatives for agricultural

development and rural poverty reduction is very broad, ranging from farmers and marginalized rural populations to relatively privileged urban professionals such as policy-makers and information managers. It is essential that the form of ODL selected be appropriate to the particular context in which it is applied.

ODL models and practices must be adapted to the social, cultural, economic and political circumstances of learners and their environment. In practical terms, the need for sensitivity to context means accepting the fact that one size does not fit all. In working with various groups of learners and various programmatic and learning objectives, it is necessary to develop the capacity to use more than one set of instructional methods, more than one delivery strategy, more than one learner support strategy and so forth.

The starting point for being sensitive to context is the knowledge of the learners who are the targets of ODL initiatives. Understanding the characteristics of the learners and the environment in which they live and work is essential for planning and delivering successful ODL programmes. In the five cases, sensitivity to context can be perceived in the choice of ODL delivery methods. There is a logical connection between the goals of a programme, the characteristics of the target learners and the ODL delivery methods used. As an obvious example, one cannot use online learning for learners without access to the Internet.

Table 1 summarizes the programmes, learners and ODL delivery methods that were the focus of the case studies.

Table 1: Programmes, Learners and Methods

Institution and Programme	***Target Learners***	***ODL Delivery Methods***
MANAGE *In-service training and consultancy*	*Agricultural extension workers, senior policy makers, government officials, grassroot workers*	*Two-way video conferencing (ISDN)*
Diploma in Agricultural Extension Services for Input Dealers (one year)	*Private sector input dealers and unemployed graduates of agricultural programmes*	*Face-to-face instruction on Sundays at regional collaborating institutions*
AIOU – IME *Basic Functional Education Programme*	*Rural illiterates and others with low levels of education.*	*Face-to-face learning groups in villages, using centrally prepared lesson plans, cassettes, flip charts, radio, television and handouts*
Women's Basic Education Programme (two-years)	*Illiterate women over the age of 12*	*Modular-based correspondence packages for independent study*
Women's Secondary Education Programme	*Women who completed Grade 8 but not high school*	*Correspondence packages in combination with weekly face-to-face tutorials*
STOU *Undergraduate and graduate programmes in areas such as Management, Education, Law, Health Sciences, Social Sciences, Liberal Arts, Agricultural Extension, and Home Economics*	*University students at undergraduate and graduate levels*	*Combination of correspondence packages, radio and television broadcasts (some live with telephone interaction), CAI, online learning, professional experience activities and tutorials*
In-service training, HRD programmes, and consultancy	*Local Administrative Bureaus and other organizations*	*Face-to-face learning groups, and project-based activities*
OPAPA *K-Agrinet*	*Agricultural extension workers and farmers*	*World Wide Web*
Farmers' Call Centre	*Agricultural extension workers and farmers*	*SMS, Cellular telephony*
Radio + Internet + SMS	*Agricultural extension workers and farmers*	*Radio, Internet and SMS Interface Telephony over IP*
Last Mile Connectivity	*Local government units and farmers' organizations*	*Internet*
OPAPA VCLASS e-Learning platform	*Agricultural extension workers and farmers*	*Web-based Learning Management System*
Rice Cyber Clinic	*Agricultural extension workers and farmers*	*Videoconferencing over IP*
SAFT *Diploma, undergraduate, and graduate programmes in agriculture*	*University students aspiring to public and private sector employment*	*Correspondence packages, audio-conferencing, e-mail contact with tutors*
Undergraduate programmes in education (in collaboration with the School of Humanities)	*University students aspiring to teach agricultural subjects at high school*	*Correspondence packages, audio-conferencing, e-mail contact with tutors*

From these five case studies, it can be concluded that successful innovations and best practices in ODL for rural poverty reduction and agricultural development need to be sensitive to context. Institutions must understand the target groups of learners and know their characteristics. The programmes developed must appeal to such learners in terms of overall goals, delivery methods and pedagogical approaches.

Using sustainable infrastructure and budgets

Infrastructure is important to ODL initiatives. On one hand, infrastructure involves technologies such as telephone lines, broadcasting facilities and Internet connectivity. On the other hand, infrastructure involves the organizational capacity to manage and administer learning at a distance. Technological infrastructure for ODL is closely related to the delivery strategies through which instructional and learner support services are provided. Educational institutions are rarely able to sustain independent systems of communication for the delivery of ODL initiatives. Rather, the delivery strategies should be developed according to the communications infrastructure that is currently available, reliable and affordable to the learners who will take part in the initiative. Often, entertainment and commercial sectors create such infrastructure and educational institutions can make use of it.

Just as infrastructure is important, so is money. It is essential that ODL initiatives be organized in such a manner that the ongoing full costs of delivering and sustaining the initiatives will be matched or exceeded by the revenues that the initiatives will attract. There are essentially three sources of revenue for ODL initiatives: tuition or other fees paid by learners; tuition or other fees paid by the parents or employers of the learners; and indirect support to the learners paid by governments, corporate sponsors or donor agencies. Through some combination of these sources, ODL initiatives must generate sufficient revenues to sustain themselves over time.

Each of the five case studies demonstrates unique approaches to establishing the organizational, technical and financial foundations for sustaining ODL initiatives in the field of rural poverty reduction and agricultural development.

The MANAGE case study shows a blending of organizational networking, government funding and tuition-based (cost-recovery) funding in its ODL work. Core expenses are minimized by employing a very small number of full-time faculty members. To carry out its large number of training programmes and consultancies, MANAGE has built a network of over 100 visiting faculty members called “facilitators” across the country. This arrangement brings the advantage of concrete field experience and huge outreach of these officers to complement MANAGE’s core resources, while working on any project.

In general, the costs for in-service training provided by MANAGE are absorbed by the government of India, while the costs of the Diploma in Agricultural Extension Services for Input-Dealers programme are covered by fees charged to participating students. The course fee is worked out on the basis of a “cost + accounting” system. Only a marginal service charge is charged over and above the expenses and consumables. Hence, the programme is self-sustainable and not overly expensive for the clients.

The AIOU case study demonstrates that organizational infrastructure is needed on national, regional and local levels. AIOU has a main campus in Islamabad, 37 regional campuses, 1,350 study centres and about 730 examination centres. Within the IME unit,

a two-pronged strategy is adopted: a head office and a network of 32 regional offices. The head office supports activities related to nationwide publicity; admission, registration, mailing of study packages, holding of examinations, advisory service from academics, monitoring and evaluation of course materials and issuance of certificates; finalizing the admission of students; and providing training to part-time tutors and field coordinators and all kinds of backup support needed in the field.

Meanwhile, the regional offices conduct publicity in the field; arrange the study groups and allocate the study centres, appoint the part-time tutors and dispatch all this information to the students and part-time tutors; supervise and monitor the study centre activities at least once a month; provide career counselling and facilitate student placement by referring them to related agencies.

This national and regional system of offices is organized in a cost-effective manner. While tuition fees are very low (given the nature of the IME target audience), the government of Pakistan contributes only 11% of the budget of AIOU. Economies of scale and cost control enable AIOU to generate the remaining 89% through tuition and related revenues.

In the case of OPAPA, it is able to attract a significant amount of funding by networking with two other major agricultural networks in its K-Agri Net initiative. This knowledge network, funded by the Commission on Information and Communications Technology (CICT), has consolidated the ICT4D initiatives of three line agencies and is directed at servicing enterprising agricultural communities.

With regard to sustainable infrastructure, OPAPA's Farmers' Call Centre uses short message service (SMS). The objectives of the call centre are to: link experts, agricultural extension workers and farmers through the use of SMS; inform extension workers and farmers on technology updates; cater to queries from extension workers and farmers, particularly on rice production technology; and link farmers to markets through text messaging.

To further broaden the scope of the Farmers' Call Centre, a link-up was arranged with several provincial radio stations.

The Academy likewise offers access to low-cost high-speed Internet to extension offices, research agencies and Community eCentres that face connectivity and bandwidth problems. This is achieved through the use of standard to fabricated antennas and low-cost transmitters (2.4 Ghz 11 mbps 802.11 b/g). Through this intermediate technology, local government units, research agencies, farmers' cooperatives, barangays and even individuals are able to connect to the Internet with the help of network backbones and access points.

SAFT uses two basic ODL delivery methods: correspondence packages and audio-conferencing. The postage system throughout the Pacific Islands is well-established and despite some delays in the exchange of course materials and assignments, the system works reasonably well, considering the vast distances and small populations served by SAFT. The audio-conferencing system makes use of the "USP-Net" satellite service that has been established to provide service to all 12 countries under the umbrella of the University of the South Pacific.

STOU has taken a number of steps to ensure the sustainability of the infrastructure it uses for ODL purposes, such as:

- Partnering with public and high school libraries to share resources and ensure an STOU presence throughout the country;
- Establishing STOU study centres based on locally donated resources;
- Promoting partnerships with external agencies through the exchange of in-kind services and various financial incentives; and
- Outsourcing expertise for processes such as the production of curricula and texts.

Furthermore, STOU has implemented a "performance-based" budgeting system in order to manage its operations largely from revenue-generating activities, with only modest subsidies from the government.

Engaging stakeholders

The need for participatory and empowering educational practices was identified by FAO (1999) in a guide entitled *Participatory Curriculum Development in Agricultural Education*. The guide categorizes general groups of stakeholders in curriculum development processes as "insiders" (leaders with training organizations, teachers, students, producers of educational materials), and "outsiders" (policy-makers, politicians, educational administrators, educational experts, employers, professional bodies, clients, funding agencies, parents, past students and interest groups). Early in the analysis of a potential ODL intervention, it is important to identify the stakeholders, understand their diverse interests and develop a process through which they will be represented in the planning, implementation and evaluation of the intervention. The process of identifying, understanding and involving stakeholders helps to ensure that distance education initiatives are undertaken for the right reasons, are sensitive to the contexts of learners and their environments, and are sustainable.

Training Needs Assessment (TNA) is one of the core competency areas of MANAGE. Human Resources Development (HRD) faculty members map the skills and knowledge levels required for each job category of clients and then the course content is carefully planned to include all the core and ancillary subjects in the curriculum. Prospective participants and their heads of departments are always involved in carrying out the TNA exercise. The involvement of clientele is not limited to TNA; innovative farmers and agri-preneurs are regular guest faculty members at MANAGE and its collaborating institutions. Participants in MANAGE training are also taken to innovative farmers' fields for on-site demonstration and sharing of lessons. Thus, clients including farmers are an integral part of the MANAGE design and delivery of training.

As far as AIOU is concerned, participation and cooperation occur at the managerial and operational levels. Meetings with districts at the village level are conducted to get their cooperation and participation. As a result, AIOU gets to use the formal school buildings and their facilities; they are likewise able to identify places and local teachers at the village level for the centres. Village Education Committees are organized to manage and arrange to supervise the centres. Each committee is composed of three influential males and three females. They are responsible for meeting the requirements and solving the problems of the centres, their teachers and students. They assess activities regularly. In effect, implementation becomes participatory at the community level, giving the community a hand in its growth and development.

The depth and breadth of OPAPA's networking and partnership with agencies within and outside the agricultural sector, within and outside the Philippines, are unparalleled. It is linked with offices within the Department of Agriculture; other line agencies such as the Department of Science and Technology and the Department of Agrarian Reform; the academe, exemplified by the UP Open University, the Development Academy of the Philippines, and provincial state colleges of agriculture; the CGIAR; and the private sector, specifically, SMART Communications and Internet cafe establishments. Given this structure, we may conclude that the institutional, virtual and social networking arrangements of OPAPA present a culture of information and knowledge sharing.

STOU engages a wide range of stakeholders in the development and delivery of its courses and programmes. At the level of policy development, STOU networks with relevant agencies such as the Ministry of Education (especially the Non-Formal Education Department and the Institute of Distance Education), the Ministry of ICT, the Ministry of Interior, the Ministry of Labour and the Ministry of Agriculture and Co-operatives. At the level of programme and content development, STOU networks with other universities and knowledge-based institutions in Thailand and elsewhere, with the goal of managing and sharing knowledge for the benefit of all partners. At the level of implementation, STOU works with local governments, schools, colleges and other agencies in order to mobilize local knowledge and other resources. Also at the level of implementation, STOU partners with various agencies responsible for maintaining and administering the media through which STOU courses and programmes are delivered (e.g. satellite broadcasting). Perhaps most importantly, STOU makes use of an extensive outsourcing network, drawing on expertise from other post-secondary institutions, government agencies and private businesses.

The work of SAFT depends fundamentally upon the engagement of regional stakeholders, as its ODL courses are delivered to 12 different countries. Collaborating partners such as Ministries of Agriculture, Ministries of Education and non-governmental organizations contribute significantly through the provision of facilities, staffing support and research inputs. Regional agricultural departments of South Pacific Island countries have greatly contributed to the practical needs of students taking ODL courses through SAFT. In some departments, there is a special training unit established to accommodate the practical needs of tertiary students studying locally or abroad.

Local tertiary and secondary institutes also provide assistance to SAFT ODL students. With collaborative dialogue between centre directors, institutional heads and educational authorities, ODL students are given the opportunity to undertake research work in the facilities such as libraries, laboratories, trials and school farms and classrooms.

The wide range of specialized expertise and scientific publications from regional bodies such as the South Pacific Commission and FAO have considerably contributed towards the academic advancement of students taking ODL courses through SAFT.

Using sound pedagogical and administrative models

There has been a substantial number and range of ODL experiences over the past several decades in developing countries. While ideal models and practices have yet to be developed, practitioners and scholars have done much to critically examine ODL and make its application more appropriate to diverse circumstances around the world. Over the past decade, the practice of ODL in both developed and developing countries has evolved substantially. Box 1 outlines some of the practices that have been found to be useful in the delivery and administration of ODL.

Box 1: Best practices in the delivery and administration of ODL

Establish a purpose and engage the stakeholders

- *The purpose of the distance education initiative is grounded in a significant issue or problem*
- *Stakeholders in the initiative are identified, understood and effectively represented in processes of analysis, planning, implementation and evaluation*
- *Programmatic objectives are defined and the place of distance education strategies in the accomplishment of these objectives is identified*

Analyze instructional possibilities and define learning objectives

- *The characteristics of the target populations of learners are understood and the main features of their learning environments are known*
- *The substantive content (subject matter) of the initiative is well-understood and desired learning outcomes (changes in knowledge, skills and attitudes) are stated*
- *Concrete learning objectives are defined*

Identify resource requirements and marketing strategies

- *Fixed and variable costs are assessed and budgeted*
- *Adequate resources are mobilized to support the initiative*
- *Marketing, recruitment and selection strategies are devised to ensure that an adequate number of appropriate learners take part in the initiative*

Design instructional content and process

- *A course development team is assembled to ensure adequate expertise in the subject matter, the instructional design process and the media of communication to be used*
- *Substantive content is organized into short and focused modules*
- *The teaching and learning process is designed to involve a range of instructional methods (e.g. presentation, discussion, tutorials, drill and practice, simulation, group problem solving)*

Design delivery strategies and materials

- *Potential delivery strategies are identified (print, audio and videotapes, radio and television, teleconferencing, computer-based instruction and computer conferencing)*
- *The mix of media for the initiative is determined based upon the nature of the learners, learning objectives and instructional methods, in the context of the economic and logistical feasibility of different options*
- *Educational materials and processes must be designed for each delivery strategy*

Administer teaching and learning at a distance

- *Educational materials are produced or purchased, stored and distributed*
- *Systems to enable communication between instructors and learners, and between learners and other learners, are developed and maintained*
- *Instructors are given orientation, training and support in their role as distance educators*
- *Learners are oriented to distance learning and integrated in student support and record-keeping systems*

Facilitate learning

- *Learners enrol and learning materials are delivered to them*
- *Learners work towards learning objectives through independent study and interaction with instructors and other learners*

Assess learning

- *Learner outcomes (satisfaction, learning, behaviour change, impact) are evaluated*
- *In formally accredited initiatives, learning is assessed through much the same processes as in conventional education (e.g. examinations, essays, projects, evaluations of practical experience, etc.)*

CONCLUSIONS

The results of the study give rise to the following conclusions that also serve as recommendations for the dissemination and adaptation of innovations and best practices in ODL:

1. It is important that ODL initiatives aimed at rural poverty reduction and agricultural development follow the five principles defined in this paper. ODL should:
   - Be undertaken for the right reasons;
   - Be sensitive to the context in which it is applied;
   - Make use of existing infrastructure, with sustainable cost structures;
   - Engage stakeholders in participatory processes; and
   - Use sound pedagogical and administrative models.

2. The five case studies clearly indicate that successful innovations and best practices have been achieved by a number of institutions in Asia and the Pacific. The keywords that run through this synthesis report are: collaboration, networking, public/private partnerships, efficiency, effective use of technology for learning, practicality of learning, accessibility, acceptability, validity of content, economics, gender sensitivity, basic education, geographic reach and sustainability. Such keywords, in the context of basic ODL principles, provide important guidance to those seeking strategies to address the challenges of rural poverty reduction and agricultural development.

3. Knowledge about such successful innovations and best practices could be usefully and economically disseminated throughout the world. There are a range of options for the dissemination of such knowledge, such as:
   - The website to be developed as a part of the project (with the synthesis paper and complete case studies);
   - Print-based publication of project documents;
   - Publication of a summary paper in a scholarly or professional journal;
   - Presentation at conferences where leaders and professionals from pertinent organizations are in the audience;
   - Invitational workshops for specific stakeholders; and
   - The establishment of an online community of practice, with members drawn from various institutions from across Asia and the Pacific. This community of practice could play the catalytic role of sharing and disseminating best practices adopted by the national institutions on a regular basis. It could also act as a think tank for Asian national policy-makers in ODL policy and practice. The community of practice could be initiated as a list-serve to which appropriate individuals are invited to participate. If such a community were to flourish, then an interactive website could be developed and possibilities for face-to-face meetings around established regional events could be explored.

4. Dissemination would contribute to capacity-building efforts and ultimately to a stronger role for ODL strategies in the pursuit of agricultural development and rural poverty reduction in developing countries. To replicate or adapt what has been demonstrated by these five case studies would require other institutions to engage in strategic planning and capacity-building exercises. Strategic planning would be important in order to determine how some of the innovations and best practices described in this report would fit different institutional missions, environments and cultures. Adopting such innovations and best practices would require the investment of resources and a strategic planning process would help institutions organize for the mobilization, monitoring and evaluation of such investments.

Beyond strategic planning, capacity development will be required in order to ensure that the institution and its staff members are prepared to successfully adopt such innovations and best practices. By institutional capacity building, we refer to developing the knowledge, skills and attitudes of leaders and staff members, as well as facilitating organizational development such that an institution is better able to support the work of its staff and partners.

REFERENCES

Gonzalez-Flor, B. P. (2005). *The Pakistan experience*. Open and Distance Learning for Agricultural Development and Rural Poverty Reduction: A Workshop to Explore Innovation and Best Practices in Asia and the Pacific, 28-30 June, Bangkok.

Gonzalez-Flor, B. P. (2006). *Case Study: The Allama Iqbal Open University Experience*. Paper Posted on the Online Conference on ODL for Agricultural Development and Rural Poverty Reduction. www.upou.org.

Flor, A. G. (2005). *Philippines Country Paper*. Open and Distance Learning for Agricultural Development and Rural Poverty Reduction: A Workshop to Explore Innovation and Best Practices in Asia and the Pacific, 28-30 June, Bangkok.

Flor, A. G. (2006). *Case Study: The Open Academy for Philippine Agriculture*. Paper Posted on the Online Conference on ODL for Agricultural Development and Rural Poverty Reduction. www.upou.org.

Intaratat, K. (2005). *Interactive ICTs & Knowledge-base Network for Agricultural Development and Rural Poverty Reduction*. Open and Distance Learning for Agricultural Development and Rural Poverty Reduction: A Workshop to Explore Innovation and Best Practices in Asia and the Pacific, 28-30 June, Bangkok.

Intaratat, K. (2006). *Case Study: Sukhothai Thammathirat Open University*. Paper Posted on the Online Conference on ODL for Agricultural Development and Rural Poverty Reduction. www.upou.org.

Kama, A. (2005). *Distance Learning for Agricultural Development in the South Pacific Region*. Open and Distance Learning for Agricultural Development and Rural Poverty Reduction: A Workshop to Explore Innovation and Best Practices in Asia and the Pacific, 28-30 June, Bangkok.

Majumdar, S. (2005, June). *Open & Distance Learning for Rural Development in India*. Open and Distance Learning for Agricultural Development and Rural Poverty Reduction: A Workshop to Explore Innovation and Best Practices in Asia and the Pacific, 28-30 June, Bangkok.

Majumdar, S., & V.P. Sharma. (2006). *Case Study: National Institute of Agricultural Extension Management*. Paper Posted on the Online Conference on ODL for Agricultural Development and Rural Poverty Reduction. www.upou.org.

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