Making agricultural training and education resources accessible

**Project Title:** Online Learning Resources

**Objective:** Often, learning institutions in developing countries struggle to maintain libraries and resources in agriculture and natural resources management and often work in isolation from international research institutes. As major developers of research and training, CGIAR centres are collaborating to centralize learning resources in support of open access and knowledge sharing to strengthen the teaching and communication capacities of these learning institutions.

**Supporting Agencies:** The World Bank

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The Consultative Group for International Agricultural Research is an international organization, providing global public goods through agricultural research to alleviate poverty. Within this group it is recognized that training and education are integral to successful national agriculture and natural resources market development and local economic sustainability. The project seeks to extend the dissemination of CGIAR agricultural and natural resource management resources to a global community.

Key to its success at both international and regional levels has been the CGIAR community’s willingness to seek out new partners and grasp emerging education technology. The research carried out by the 15 independent agricultural centres is mobilized in an effort to alleviate poverty and promote best practices in farming that encourage growth and investment to increase food security.

Education prepares individuals planning to work as farmers, managers or policy makers; however, increasingly, teaching programs cannot keep up with the demand, science or new technologies. All too often, universities and research institutions in developing countries do not have access to current and advanced knowledge materials. The CGIAR on-line repository is freely available, providing accessibility for agricultural information, fostering continuous and professional development.

There are current programs that strive to build and promote agricultural capacity strengthening frameworks who work with CGIAR centres and universities. It is anticipated that such collaboration will stimulate an expansion of research, development, education and training in agriculture in each participating region. Our goals are to streamline design efficiencies, integrate networks dedicated to higher learning, to expand the repository, generate comprehensive federated searches, and publish agricultural learning objects. CGIAR envisions a well-connected training community of practice that works together to address the learning needs of our partners in research, development, training and education, making use of recent advances in ICT to avail CGIAR learning resources in agriculture to an international learning community.

The CGIAR chose to adopt a learning object strategy that allows for learner-centered curriculum development and flexible delivery. A learning object strategy empowers local institutions,
strengthening the capacity of those institutions by providing access to materials that they can adapt and contextualize to meet the specific and changing needs of locally-based students. This project seeks to house these materials in a repository and links this directly to a learning management system, facilitating the creation of online and blended learning courses.

The learning resources must be described in a manner that best suits its content, purpose and audience, while complying with internationally recognized metadata standards and contributing to the growing network of repositories. The Application Profile (AP) for the repository is based on Learning Object Metadata (LOM), a set of descriptors for educational objects. An important challenge for the task of the customization of the LOM into a CGIAR LOM AP is to reflect a non-traditional group of users who are global, multidisciplinary and multicultural with differences in educational background, experience and language. Using these internationally recognized standards has allowed the repository to exchange information with repositories around the globe, thus gaining a greater breadth of resources from which to use and to further disseminate CGIAR resources.

The systems have been designed using open source software in order to facilitate their access and use by national partners, particularly those located in developing countries. By selecting open-source over propriety software, the CGIAR centres are helping to champion the ideals that education and information should be free and accessible in support of advancing scientific research in agriculture for development.

Further measures to strengthen the teaching and communication capacities of learning institutions in developing countries include: the standardization of learning object design, the development of quality assurance guidelines and the promotion of new concepts and approaches in the development and dissemination of agricultural and natural resources management learning materials via CG On-line Learning Resources. Educators must be exposed to these tools so that knowledge can be disseminated on a wider scale and be used by those who benefit the most.

For more information: visit http://learning.cgiar.org