

Problem: Agriculture post-graduate students, faculty, and extension workers do not have access to up-to-date material and information, including textbooks, reference and training material, local and international journals, audio-visual aids, etc.

Developing Online and Offline Textbook Collections to Support Agricultural Curricula

1. THE CONCEPT

In many agricultural universities and colleges in the developing world, students do not have adequate access to textbooks for their courses, and often have to wait in long lines at library reserve desks to borrow the few available copies of the textbook. In some cases even the professor must use the library's copy to prepare his or her lectures, although the available copies are often seriously out of date. Indian universities have addressed this problem to some extent through textbook "rental" centers, which collect a small fee from students for the use of a text for the semester. Applying this model in the electronic environment offers the potential to create digital collections of textbooks which could be made available for a small fee per student. Two types of texts could be added to this collection: 1) textbooks owned and distributed by publishers in electronic form where rights and fees have been negotiated; and 2) open access wikibook content developed by agricultural faculty, students and extension staff. Textbooks in these collections would be distributed to students either on inexpensive laptops (note: partnering with the One Laptop per Child program is one possible model), or content and delivery developed in conjunction with one of the new e-book reader development efforts, e.g. SONY Reader.

2. RATIONALE AND EVIDENCE THE PROJECT CAN BE SUCCESSFUL

The International Association for Digital Publications www.iadpnet.org currently has several pilot programs to test the viability of an offline textbook delivery model. They are working with four universities in South Africa, and between two and four of the Universities of Botswana, Namibia, Zambia, and Malawi, in conjunction with the South African Institute for Distance Education. They have successfully negotiated rights with a number of key scientific publishers, and expect to reach about 1000 and 3000 students in phases I and II of the program, respectively. A similar model, applied on a pilot scale to consortia of resource-rich and resource-poor universities in India and in other parts of Africa, could go a long way towards removing a basic constraint of access to educational material in agriculture and development.

3. EXPECTED BENEFITS OF THE PROJECT INCLUDING COMMENTS ON SUSTAINABILITY AND SCALE

This project has the potential to improve teaching and learning in the undergraduate and graduate programs in agriculture and other subject areas, and could be scaled up to include universities throughout Africa and South Asia. Curricula which are currently outdated can be significantly enhanced with better access to textbooks. In addition, students leaving university programs would have a reference collection to use in their future work—of particular value to those going into public or private agricultural extension. This e- book and reference material model might also be viable for extension

agents since portable devices with extension publications and other helpful material can be easily taken into the field. Lastly, digital readers have the benefit of continuing to deliver information even when electricity and/or connectivity are limiting, as they often are in much of Africa and Asia.

4. HOW THE PROJECT WILL TARGET THE NEEDS AND BE OF SPECIFIC BENEFIT TO WOMEN SMALLHOLDERS

Many university agriculture students are female, as are most small-holder farmers in Africa and Asia. Providing students with a strong information core on a reader or laptop would contribute to improved understanding and implementation of their curriculum, and greater confidence of women educators or extension agents. The benefits would ultimately accrue to women farmers. These e-texts would serve as a reference library for students when they graduate, allowing them to obtain updates as the material ages, particularly if an open access wikibook collection is created.

5. PROJECTED COSTS OF THE PROJECT

Budget items:

Staff costs:

Additional Local level costs:

Purchasing content (at discounted prices)

“Book Downloading Center”

Developing Wikibook content (Separate project?)

Additional Central level costs:

Negotiating publisher content/prices on consortial basis

Repository for storing Wikibook content

6. MEASURES OF SUCCESS

Project effectiveness will be measured quantitatively and qualitatively at least three times over the period of funding to determine trends in adoption and success. Some indicators of success will include but not be restricted to: number of students participating in e-book and material subscriptions by gender and academic level; number of graduated students by gender continuing in agriculture-related activities; number of extension agents using e- material by gender, and number of stakeholders served by gender, holding size, and income and education level.

7. RISKS

Publishers may be unwilling to expand this program into countries where students are unable to pay full price for published material. The delivery model requires each student to have an e-book reader or inexpensive laptop, which may not be viable; however, it may be possible to implement innovative arrangements (mini-cooperatives) that allow small groups of students to share resources. It is still unclear which e-book reader, if any,

will be widely accepted. Current e-book readers do not support color, which would be necessary for effective delivery of scientific texts and visuals.