

## **Delivering Non-Academic Agricultural Content to Supporting Agricultural Extension Activities**

**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.

### **Delivering Non-Academic Agricultural Content to Support Agricultural Extension Activities**

#### **1. THE CONCEPT**

Extension agents and NGO workers need access to reliable agricultural information if rural livelihoods of small-holder farmers in Africa and Asia are to improve. Information does exist, but it is typically in English-language scientific publications that are inaccessible to non-English speakers, and those who are not highly trained scientists. Further, these as well as extension publications are not easily or widely available. Thus, even trained personnel who might bridge the gap between knowledge creation and its local application by small-holder farmers do not have the information to effectively do this.

A model is proposed that involves personnel with agricultural expertise working with agricultural program graduates to make scientific knowledge more accessible to such “bridge workers” in the agricultural sector. In addition, community-based findings of local significance and applicability would also be included for dissemination by extension and other agricultural sector workers. Such information would be organized on a website, but would also be available in a variety of formats, including other, non-internet formats (CD-ROM or hard drives), video/audio (via TV, radio, phone), and paper. The information needs to be regularly updated material that is location and need-specific, multi-lingual, and visual to accommodate the varying literacy levels of farmers. It needs to be accessible and relevant to women who are the majority of small-holder farmers in Africa and Asia, and a

#### **2. RATIONALE AND EVIDENCE THE PROJECT CAN BE SUCCESSFUL**

Several resources exist to deliver published literature and reports to agricultural scientists, among them the FAO’s [WAICENT](#) and [e-agriculture](#) portals, [Eldis](#), the CGIAR’s [CGVirtual Library](#), and Mann Library’s [TEEAL](#) and [AGORA](#) (which supports English, Arabic, French, and Spanish) initiatives. However, the materials in these collections are generally not location and need-specific, and target highly trained, English-literate users, rather than the average extension agent. [Digital Green](#) uses participatory videos to disseminate targeted agricultural information directly to small-holder farmers in South India. This approach is accessible and relevant to farmers who see their peers in videos, but is not linked to knowledge generated by institutionalized research and development (both academic and commercial or market-based). An innovative approach to information dissemination is needed that marries the relevancy of Digital Green with knowledge generated by formal institutions but made accessible through the *interpretation* of published literature—such as that found at Virginia Tech’s [Virginia Cooperative Extension](#) website.

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

Multi-media content will be categorized by subject within three broad areas: agriculture and natural resource management; agribusiness and marketing (including post-harvest processing and off-farm income generation activities such as handicrafts); and human and livestock health and nutrition. Knowledge in all three is critical to improving agricultural productivity, environmental sustainability, and human well-being. Foundation funds will be used to recruit and train personnel for content creation, and to leverage existing agricultural networks such as public and private agricultural education and extension systems, agro-business dealers, and NGOs for delivering information and gathering feedback in pilot-scale implementations.

The pilot phase will cover 100 villages each in Kenya and Mali, and two Indian states to assess the influence of varying infrastructures, cropping systems, and cultural norms—particularly those governing the rights to resources of women. In 3 years, implementation will be scaled up to broaden institutional arrangements to sustain information creation and delivery, and to include other regions. Content, material, and hardware maintenance is envisioned to continue after the funding period through the recognition of mutual benefits for farmers and information deliverers. Innovative arrangements such as the formation of farmer cooperatives paying small fees to ensure timely and relevant information delivery could also play a role in sustaining this model.

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

Location-specific and need-based agricultural information targeted to small-holder farmers and delivered via women-centered examples and visuals will improve livelihoods of women and entire families. It will also acknowledge and formalize the contribution of women within their societal structures. Access to information on activities that tend to be female and family-centered—such as handicrafts and human and livestock health—directly benefits women and children as well.

### **5. PROJECTED COSTS OF THE PROJECT**

Pilot scale implementation over the first 3 years of the project will cost about USD 1,000,000 annually, with funding decreasing to 750,000 and 500,000 annually over the next 2 years. Much of the initial costs will cover software, hardware, content creation, facilitating participation by personnel in existing agricultural networks, staff recruitment and training, and survey creation, administration, and analysis. Costs over the last 2 years will primarily cover staff recruitment and training, content creation and maintenance, and survey administration and analysis.

### **6. MEASURES OF SUCCESS**

Project effectiveness will be measured quantitatively and qualitatively through surveys to determine success. Indicators of success will include assessments of: most popular delivery formats/media; whether the type of content needed is being delivered; who is using what material and how—to help address gender, socio-economic status, cropping system, and other biases; changes in “livelihood” as measured by income, children’s education level, family health and nutrition (food choices and accessibility).

## **7. RISKS**

Context-based content, flexibility in mode of delivery, and personnel responsive to local and gender-based issues and feedback are critical determinants of this project's success. Scaling up from pilot phase implementation and maintaining effective service after the funding period are likely to be challenging, but not insurmountable obstacles, given effective initial deployment and innovative arrangements.