

1. Applicant Information

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2. Extension Program Title

“Improving Quality in the Shea Market Through Farmer Organization Design and Market Coordination”

3. Summary of the Proposed Extension Program

Shea (Karité) is a perishable tree crop that grows wild in the agroforestry parklands of West Africa. In Mali, shea has been nicknamed “Women’s Gold” because revenues from shea sales make an important contribution to rural women’s cash income. Oil extracted from shea nuts is used for cooking in West Africa, as a cocoa butter substitute in Western Europe, and in cosmetics in the US. The cosmetics marketing channel has both the highest growth potential and most stringent quality requirements. Shea quality depends on processing and storage practices of rural female farmers—it can then only be maintained by value-chain participants. Together these actors comprise the target audience for this extension program. Many producers market their goods through village-level farmer associations or cooperatives. These farmer organizations enable farmers to gain economies of scale, bargaining power, and manage risk. Cooperative members suffer when heterogeneous quality are pooled and then marketed as a single and low - quality product. It is difficult to determine the quality of shea sold in rural markets. As a result, farmers are not compensated for their efforts and have no incentive to invest in improved processing or storage methods. The quality problems in the Malian shea value-chain can be described as ones of adverse selection and, more specifically, Akerlof’s “Market for Lemons.” Mali has developed a reputation for low quality shea and farmers automatically receive a price discount for their goods. This scenario is not unlike the obstacles faced by horticultural crop farmers in parts of the United States (such as Michigan apple farmers).

This extension program is designed to facilitate a discussion on improving product quality and promote coordination between agricultural value-chain participants in a developing country setting. The target audience includes actors who play a role in establishing and maintaining shea nut and oil quality including farmers (rural Malian women) and cooperatives; traders, wholesalers, and exporters; international oilseed and cosmetics industries; international donors (who provide financial support for value-chain and export promotion efforts and extension-like services); and the Malian Government, including the national agricultural research institute (IER), the Office of Agricultural Market Statistics (OMA), the Agricultural University (IPR/IFRA), and the Ministry of Women’s Affairs (MFPEF). Future follow-up programs will be tailored and targeted specifically at farmer organizations, to be carried out, ideally, by the current program’s attendees.

This proposed extension program seeks to address the question of how to align production practices with the quality attributes consumers want through appropriate incentives. This can be addressed through cooperative organization design and value-chain actor coordination. This program is part of a weekend-long workshop designed to generate interest in a longer-term extension effort with value-chain participants. This workshop focuses on improving the quality and reputation of Malian shea and provides a venue for value-chain actors to discuss

the major obstacles they face and how they may be addressed through improved market coordination.

Current extension-like programs in Mali can be categorized as efforts to “link farmers to markets” and promote improved technologies. This program is designed to overcome two problems in the delivery of extension services to female farmers in Mali by emphasizing both the gender components of shea production and marketing (including the role of women and the unique set of incentives they face) and the technical expertise of workshop presenters— both of which are lacking in current extension programs. Those who currently provide extension and extension-like services within the context of the Malian shea value chain generally understand the root problem (poor product quality). These services are often provided by NGOs and international donor organizations. They have not taken an integrated “whole of value-chain” approach to conceptualize their interventions. As a result, farmers have not been presented with proper incentives and many of these interventions have been unsuccessful as farmers either never adopted new production technologies or quickly disadopted them after the first year.

The educational objective of this program is to demonstrate the relationship between processing and storage methods and product quality, and how organizational design can provide incentives for farmers to invest in product quality. Successful completion of the workshop could serve as a quality assurance seal for farmer organizations wishing to market their goods to the value-chain actors present. By the end of the weekend-long workshop, farmer organization representatives should be equipped with sufficient technical knowledge, practical training, and contacts (through networking) to facilitate a discussion to improve compensation within their respective organizations and increase coordination with other marketing actors. Workshop organizers will work with extension agents in the field to schedule follow-up visits with farmer organizations to determine how they have applied the information provided, help trouble-shoot some of the obstacles encountered, as well as diagnose and help propose solutions to new problems that were not addressed in the initial workshop. In this sense, this collective extension effort an ongoing and interactive learning process for all players involved, including the workshop organizers.

Improving the quality and reputation of shea “made in Mali” will have an important positive economic impact. First, many rural Malian women participate in the shea value-chain. Some depend on the revenues for the bulk of their cash income. This money is used to pay for daily household expenses not otherwise met (including school fees, clothes, and food). Family income partitioning in Mali is such that increases to women’s income directly benefit the women’s themselves and their children. Second, shea has also been stored and sold during the lean, hungry, season to allow farmers to maintain grain stocks for longer periods of time. Shea is therefore also an important food security crop. Third, the reputation of Malian shea is a “public good.” Improving the incentives faced by farmers and the quality of shea “made in Mali” will benefit farmers throughout the country.

This program is part of a weekend-long training workshop organized and funded by international donor organizations and international oilseed and cosmetics firms. It will take place at “La Maison du Karité” (The Shea House) in Siby, Mali (45 minutes from the capital city, Bamako). Siby is centrally located in Mali, which will help attract farmers from across the country. This is the headquarters of one of Mali’s most successful shea cooperatives, COPROKAZAN. This venue is equipped with a conference room, small breakout discussion rooms, space for interactive demonstrations, and accommodations. The workshop will take place in mid-March to allow value-chain actors to incorporate the ideas before June— when both

women's household and on-farm labor requirements peak and the "shea season" begins. Follow-up field visits will be scheduled for June and August (when shea nut de-pulping, drying and storage take place) and November (when shea oil extraction intensity piques). The workshop will be advertised with a press release in late February, an ongoing radio advertisement in February and March, with posters placed in donor organization offices, marketplaces, along major roads, and through invitations (especially for attendees who will need to travel internationally).

My extension program, focusing on the issues of farmer organization design (including pricing and payment mechanisms), will be one of six interactive workshop presentations. In the morning of the first day, and as part of the introduction to this workshop and to help set the stage for the discussion of how to compensate farmers for quality and coordinate market activities, an exporter will present an overview of the scope of value-chain in terms of the goods produced and actors involved. Representatives from the cosmetics and confectionaries industries will then give an interactive demonstration of their preferred processing and storage methods and the criteria they use to determine product quality. My extension program will take place in the afternoon of the first day. In the morning of the second day, the West African Trade Hub (WATH), a regional authority in export promotion, will discuss some of the packaging and labeling requirements for exporting to the EU and North America. Local NGOs, the MPFEF, and international donors organizations (like USAID) will present some of their experiences with shea product promotion and discuss how future efforts can incorporate the value-chain approach. Finally, selected traders and exporters will discuss the challenges of identifying a target market and establishing trade partners.

My presentation will consist of three components. First, a PowerPoint presentation will outline some of the finding from my MS paper, including (1) the difficulties of determining and compensating for quality in the rural settings (where no technology exists to verify quality other than visual inspection, which is imperfect, costly, and time-intensive), (2) the importance of product quality on reputation and market outlets, and (3) the potential arrangements to overcome some of these issues at the cooperative level. The latter includes making use of peer monitoring (the Grameen Bank model), sorting nuts at the household or cooperative level (to allow for payment for quality), and differential payment for quality or contingent pricing which is made possible at this level through heightened level of trust between cooperative buyers and members. Two case studies will be used to demonstrate these ideas. These will examine the farmer organizational design and pricing arrangements (fixed payments, farmer organization established grades, and contingent pricing) of a successful shea farmer cooperative in Burkina Faso, and an analogous situation of a Michigan apple farmer organization that is striving to improve product quality.

Second, prior to the workshop, participants will be given an open-ended questionnaire to help them think about the obstacles farmers face in terms of the incentives they face and how they are organized. This will focus on understanding how the cooperative is organized, the organization's goals (products and target market), services provided to members (grading, sorting, processing, storage, marketing), pricing, and payment arrangements. The answers will be discussed during a breakout session. This discussion will give workshop participants a chance to think through some of the problems identified at the farmer level and to brainstorm how they might be addressed by using the ideas from the presentation outlined above. These breakout discussions will also provide time for traders, oilseed processing and cosmetics firms, and donors to share their experiences with cooperative representatives. Third, after the breakout session, workshop participants will reconvene to discuss the findings from brainstorming

sessions. At this time they will have a chance to discuss the pros and cons of alternative farmer organization designs and market coordination arrangements, and potential institutional limitations of improving and maintaining product quality through the value-chain.

Over the course of the workshop, participants will be provided with factsheets, handbooks, PowerPoint slide handouts, and a list of contacts. The factsheets will include a map of the value-chain and the packaging and labeling requirements for export to the US and the EU. Pictorial training handbooks demonstrating improved processing methods will be distributed in French (the official language) and local languages. Participants will receive the PowerPoint slides from my presentation and the write up of the two case studies. Finally, to facilitate networking, participants will be provided with a list of program participants and presenters.

The problem of product quality and proposed solutions described above (farmer remuneration and market coordination) are not new, nor are they unique to the shea value-chain. For this reason, the blueprint, message, and many of the educational tools from the proposed workshop and extension program can be modified easily and applied to other high-valued and highly perishable agricultural value chains.. They can be adapted to other developing countries where traditional extension services are lacking and where other actors (like NGOs, donors, and the private sector) have worked for many years to fill this gap.

4. Profile of Applicant's Background, Thesis Title, and Research Description

I am a 2nd year PhD student in the Department of Agricultural, Food, and Resource Economics at Michigan State University. My research interests lie in the field of Agricultural Markets and Price Analysis with applications to developing countries, and more specifically, West Africa. In particular, I am interested in the effects organizational design on product quality in high-valued and value-added agricultural product markets.

In 2005, I received a BA in Economics, French Literature, and International Affairs from the University of Colorado at Boulder. Before starting my Doctoral studies in Agricultural Economics I was a student intern with both the African Development Foundation (ADF) in Washington, DC (2005) and the USDA Foreign Agricultural Service in The Philippines (2006). In late 2006 and early 2007 I had the opportunity to serve as a USAID Farmer-to-Farmer volunteer in Mali, West Africa.

My MS thesis (2009) in Agricultural Economics, entitled "Improving the Quality of Women's Gold in Mali, West Africa: The Case of Shea," was motivated by the problems in high valued and value-added product marketing I observed as a Farmer-to-Farmer volunteer in Mali, including: asymmetric information (adverse selection and moral hazard), lack of trust between marketing actors, cooperative organization design, the competing time constraints of women engaged in agriculture (opportunity cost), export market promotion, market activity and actor coordination, and maintaining quality through the value-chain.

In my MS paper I used a combination of tools to describe the Malian shea value chain, including the "Structure, Conduct, Performance" framework borrowed from the industrial organization literature and the "Subsector Studies" approach popular in current export-led International Development strategies. Analogies from subsectors historically plagued by adverse selection and moral hazard are used to identify potential leverage points and intervention strategies for stakeholders to help improve shea quality (through new technologies and alternative pricing mechanisms) and returns to primary farmers. The analysis suggests the Malian government has the potential to play an important role in this process as a coordinating body and channel captain, with donors and private enterprises playing complementary roles. USAID Mali has incorporated some of the ideas from an earlier version of my MS paper and Farmer-to-Farmer volunteer report to improve its intervention strategies.

5. Mentor and Research Advisor Information

Research Advisor

Professor John M. Staatz
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Professor Staatz is currently my research advisor, academic advisor, and served as my major professor on my MS thesis committee. Professor Staatz played an important role in the conception and design of my MS paper— which benefited greatly from the ideas and material presented in his course “Analysis of Food System Organization and Performance” as well as his extensive experience in West Africa. Most recently he has been engaged in policy extension through his efforts to assist the Malian government develop a new grain marketing strategy. Professor Staatz also participated in drafting and editing my MS thesis and related publications.

M.F. Coulibaly is currently a Food Security Officer for a Save the Children Multi Year Assistance Program (MYAP) in Gao, Mali. He is an extension agent by training (IPR/IFRA Katibougou, Mali) and has worked in the field of international agricultural development for over 10 years. In 2007-2008 he served as the Farmer-to-Farmer volunteer coordinator through Opportunities Industrialization Centers International (OICI) Mali. During that time and on subsequent trips he provided invaluable insight into realities of the Malian rural economy—including some of the shortcomings of agricultural extension (and extension-like) efforts in this context.

This extension program proposal also benefited greatly from the comments and suggestions of a colleague and friend, Joleen Hadrach (MSU).