Enhancing Value Chain Performance Through Improved Understanding of Consumer Behavior and Decision Making (SO2.2)

Lead U.S. Principal Investigator
Vincent Amanor-Boadu, Kansas State University, USA

Host Country and U.S. Co-PIs
Allen Featherstone, Kansas State University, USA
Kara Ross, Kansas State University, USA
Gelson Tembo, University of Zambia, Zambia
Lawrence Mapemba, Lilongwe University of Agriculture and Natural Resources, Malawi
Fredy Kilima, Sokoine University of Agriculture, Tanzania
Indaba Agricultural Policy Research Institute (IAPRI), Zambia

Collaborators
Zambia Agricultural Research Institute (ZARI), Zambia
Center for Coordination of Agricultural Research and Development for Southern Africa (CCARDESA), Botswana
CGIAR/Pan-African Bean Research Network
INADES Foundation, Tanzania
Grain Traders and Processors Association, Malawi
Grain Legume Association Ltd., Malawi
National Statistical Office, Malawi
Central Statistics Office, Zambia

Abstract
Despite their high nutritional profile and knowledge about their nutritional benefits, grain legumes are not high on the food hierarchy in Malawi, Tanzania, and Zambia. The challenge confronting producers and their supply chains is how to enhance their competitiveness in their local markets and get the necessary policy support from their government to sustain it. This project seeks to make two critical contributions to this challenge. First, it seeks to develop a clearer appreciation of the factors influencing grain legume consumption in the three countries to provide empirical direction for market and policy development. Second, it seeks to provide training and capacity building support for the industry’s stakeholders to seize identified opportunities and address existing and emerging challenges. When this project succeeds, it will contribute to creating value in the grain legume value chain by helping stakeholders along the value chain utilize an improved understanding of consumer choice decisions in their own decision-making processes.

The project has three integrated dimensions: 1. An empirical foundation for understanding factors and their influence on food choices; 2. application of the empirical results in crafting policies and facilitating knowledge and skill development in managing value chains; and 3. developing and delivering outreach programs to help both private and public stakeholders improve the performance of grain legume value chains. These activities contribute to supporting strategies and initiatives that enhance the well-being of smallholder producers. This project, therefore, provides innovative and unique pathways that bring producers, including smallholder producers, and public and private stakeholders together to help achieve the underlying objectives of the Feed the Future initiative.
Problem Statement/Justification
We know very little about the factors that shape demand for grain legumes in Eastern and Southern Africa. As a result, industry stakeholders, from small and large holder producers through aggregators, exporters, wholesalers, and retailers to policy makers have been unable to develop knowledge-based strategies to influence the demand for grain legumes. Addressing this knowledge gap across the supply chain would improve stakeholder decision making and enhance operational performance by helping them identify and develop effective business models that contribute to the sustainability of their competitiveness.

Because food consumption is determined by both social and economic factors, it is hypothesized that improving the appreciation of the stakeholders of the legume supply chains in Eastern and Southern Africa on how consumers make food choice decisions and where legumes fit into those choices would help develop a more effective strategy to enhance their performance and profitability. For example, it could enhance the breeding strategies of research institutions and seed developing companies and help public policy makers direct policies that support sustained improvement in consumption.

This project, therefore, seeks to develop new understanding of the factors influencing consumers’ food choice decisions in Malawi, Tanzania, and Zambia, and then use this understanding to facilitate improvements in grain legume value chains. The project has three integrated dimensions. First, it develops an empirical foundation of understanding the factors and the extent that these factors influence food choices. This will be the first empirical evaluation of factors and their complex interactions influencing consumer choice of grain legumes in Eastern and Southern Africa. Second, the research employs these insights to engage industry stakeholders (government, private businesses, nongovernmental organizations, producers, traders, processors, etc.) and public institutions (research institutes, universities, extension, etc.) in a search for value creation and value expansion opportunities as well as solutions to challenges preventing value chain effectiveness. The third dimension involves using the foregoing information to carefully develop and deliver outreach programs aimed at enhancing strategy development, management and decision-making, and other skills of industry stakeholders. In the end, the project provides innovative and unique pathways that bring smallholder producers and other stakeholders into specific alliances to help smallholder producers improve their economic well-being.

Objectives
Our overall objective is to facilitate the development and execution of private and public sector strategies that enhance growth in the grain legume industry. The specific objectives are:

1. Identify and analyze the factors shaping bean/cowpea consumption and their relative positions in consumers’ food rankings in the selected countries.
2. Conduct situation analyses for bean/cowpea production and marketing/distribution systems with a view to identifying the nature and extent of the gaps in their value chains.
3. Implement formal and informal capacity building initiatives to address identified gaps and to support value chain management capacity across the grain legume industry in the focus countries.

Research Approach and Methods
We collect primary data using a survey approach that uses a two-stage sampling technique in the three focus countries. The first stage is the sampling of enumeration areas in the three largest cities in each country and the second stage involves the selection of households in each enumeration area. There are two parts to the survey process. The first part gathers socioeconomic information about the participants
and the second part uses the DCE approach to elicit respondents’ food preferences. We also employ econometric analyses to evaluate the data to identify the factors that influence choices and preferences. We use secondary data to evaluate the production and marketing situation of grain legume products in the focus countries. Finally, we use dynamic curriculum development and multiple engagement processes to facilitate the training and outreach efforts to build decision-making and operational capacity across the grain legume industry in the focus countries.

**Anticipated Achievements and Outputs**
The primary anticipated achievement from this effort is the enhanced capacity of grain legume stakeholders in the focus countries through research-based decision-making. This improvement in decision making should lead to higher performance across the whole supply and value chains. The principal outputs contributing to these achievements are a number of research reports addressing the first two objectives and curricula on value chain development and management training programs resulting from the research. Additionally, the project anticipates producing a number of MS-level graduates and Master of Agribusiness graduates to improve the professional analytical and decision-making capacity environment in the focus countries.

**Projected Development Outcomes**
1. Better information to facilitate product development for target markets, thereby improving commercialization success
2. Enhanced productivity along the value chain, leading to improved value creation at each stage
3. Sustainable collaborative initiatives that produce superior business models that are inclusive for smallholder participants across the industry

**Contributions to Institutional Capacity Building**
The capacity building initiatives defined in this project are designed to facilitate stakeholders’ ability to think critically about their options before choosing and assess the economic outcomes of their alternatives before acting. Systematically developing short courses to fill identified and emerging skills and knowledge gaps contributes to this focused capacity building initiative. By using multiple pedagogical approaches and delivery mechanisms, we are able to reach a broader segment of the industry. Because the industry’s challenges are symptomatic of the sector and generally apply to most small- and medium-sized businesses, we believe the benefits of our capacity building efforts in the host countries private and public institutions would reach beyond the primary targets of this project.