

## **Output 3: The Resource-To-Consumption (ERI) Framework Developed, Tested and Applied to Strengthen Farmer Organizations and Rural Women's Capacity Allowing Transition from Semi-subsistence to Competitive Market-oriented Production in Africa and Latin America**

### **Farmer Participatory Market Research: Approach for Increasing Commercialization of Agricultural Products**

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#### **Introduction**

Over the last twenty years, the speed of change in the global economy has accelerated dramatically. According to an ActionAid-Uganda report (2003) on agriculture and food security interventions, agriculture is an overwhelming sector of the Ugandan economy. It accounts for 43% of the gross domestic product, 85% of the export earnings, employs 80% of the population, provides most of the raw materials that are used in the agro-based industrial sector, and 85% of the population are rural based, where agriculture can be best practiced (Elshof 1998). Most people in Uganda are still engaged in direct consumption or subsistence—local production for local consumption, “you eat what you grow”. The majority of Ugandans live in absolute poverty with an average income of one dollar a day. Toward the end of the year 2000, the Government of Uganda launched a Plan for Modernization of Agriculture (PMA) and Poverty Eradication Action Plan (PEAP). The primary aim is to transform subsistence agriculture into commercial agriculture and ensure sustained food security and household incomes.

The rapid growth of the urban population presents special challenges for small-scale farmers in developing countries. They are under increasing pressure to fulfill the new market requirements of powerful supermarket chains and agroindustry, which demand product quality, volume, and continuity of delivery. Most farmers in rural areas agree: "The worst pest we face nowadays is low prices, and researchers so far have not found adequate measures to help!" (Bernet et al.). The farmers must first know what to produce, when to produce, how much and for whom. This is where a participatory market survey becomes very vital to farmers because, together with their support institutions, market information is collected and analyzed to guide farmers' decision on the appropriate income-generating enterprise (Lundy et al. 2002).

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## **Methodology**

**The study area:** Hoima is one of the districts found in mid-western Uganda. Like any other district in the Lake Albert crescent zone, it receives a bimodal rainfall pattern ranging from 800-1600 mm per annum, with peaks in May and September for the first and second rainy seasons, respectively. The majority of the people in this District are peasant farmers. The two farmer groups of Tukulerehamu and Tweimukye, found in Busiisi and Kitoba subcounties, respectively, are the major focus here.

**Group identification and selection:** Before any activity is started in a community, there is need to identify groups through which the activities will be channeled to reach the rest of the community members. A search for groups that are strong and representative and with good networking systems are selected to begin a project's activities. Group identification is important because innovations can be easily promoted in already-focused people who share some common objectives. Two farmer groups were identified in Hoima District: Tweimukye and Tukulerehamu youth groups. These groups were selected so as at a later stage they would be used to scale out the activities in which they are involved to the rest of the community by facilitating the formation of new groups and training them in all aspects in which they had been trained.

**Community participatory diagnosis:** The two groups did an exercise called participatory diagnosis. This consists of a combination and sequencing of participatory approaches and tools for enhancing a shared understanding and learning between the local communities and R&D team to enable the rural communities to identify opportunities and constraints in their community and plan for appropriate interventions to enable them to get out of poverty through their own innovations. This exercise is important because it is the entry point to any community where researchers would otherwise be treated as strangers. Here a dialogue is established between the community and R&D workers; and at this point trust is built as the R&D team gets to understand the farmers and the community at large. It is the starting point for involving farmers in research as in this exercise farmers mention all the assets that they have in their community and their importance to them.

These two groups of farmers drew the map of their village and identified institutions, wooded areas, farms, major crops, markets, water sources, NGOs and CBOs and ranked them in order of importance for them. Constraints in the community that hinder the farmers from progressing in their struggle for food security and income generation were also identified. During this exercise, the farmers selected crops that they felt had the potential to generate income. Crops and livestock selected by Tweimukye group for income generation during the community participatory diagnosis were *nakaati*, tomatoes cabbage, chickens, pigs and goats; while the Tukulerehamu youth group selected beans, bananas, groundnuts, chickens and pigs.

The above items were, according to the farmers, very likely to bring them income, but this is where farmers go wrong, thinking that whatever they want to grow or have grown has a market demand. It was against this background that it was brought to the farmer's attention that whatever they have selected as options for income generation may not necessarily be demanded in the markets and so there is need to go to the markets and find out what sells, who is currently supplying the market, what quantity is demanded, quality issues, frequency of supply, terms and mode of payment and other questions related to

marketing of agricultural products such as the level of damage by weather and pests and disease attacks.

### ***The participatory market research (PMR) process***

***Selection of market committee:*** The farmers were convinced that it could be true that whatever they had selected for income generation might not be demanded in the market so they accepted that a market survey be done to either confirm these selected options or to find other better opportunities. Prior to the market visit and because not all the group members could go for the activity, a market committee was selected by the group members. The committee was selected based on ability to read and write, speak confidently in public, ability to give correct feedback, good negotiation skills with the potential buyer, activeness in group activities, gender concerns and age were also considered. Each group selected two men and two women to form the market committee, visit the market and bring back correct feedback to the rest of the group members so a decision could be made on which option for income generation to go with. Before the market committee visits the market to collect information, the core facilitator makes prior arrangements with the market outlets to be visited to ask for permission from the management to bring the farmers, explain the objectives of the visit, and make an appointment as to when the farmers should go.

***Training of market committee and pretesting:*** To get the committee ready for the market visit, they were trained on what information to collect about the product they are interested in. During this training, farmers also realized that information regarding transportation of the products to the market was worth finding out from the buyers. Their concern here was who would be responsible for the costs of transporting the products from their farms to the market.

Basing on the information gathered during the participatory diagnosis about the income-generating options that the farmers were interested in, the guide to the PMR was developed together with farmers as to what information should be collected about the options they had already selected before the market visit and also to find out information about others. The information to be gathered was to inquire whether the products they had selected were demanded in the markets and whether they could meet the supply conditions. In addition, farmers were also to ask questions related to exploring new opportunities in the market that had the potential of generating more income for them than the options selected earlier during the participatory diagnosis.

Other questions were about the most demanded products, the current suppliers, quantity of supply, quality, packaging, mode of payment and whether there was a possibility for the farmers to supply the market with some products. The farmers were also trained on how to ask questions, they were to be polite, start by greeting the buyer and ask questions in a manner that does not make the buyer think that they are collecting market information to throw him out of his business, but rather to make the buyer appear important and helpful in guiding them on the right products to produce for the market.

Sensitive questions such as, “how much profit do you make from these products” were to be avoided unless the buyer was willing to give the information on his own. The market outlets visited were in Hoima, Masindi and Kampala, and they include the Hoima central markets, and Kolping and Millennium hotels in Hoima, Lucky Seven supermarket, Masindi Hotel, Bijah Hotel, Masindi central market, Shoprite supermarket, Uchumi supermarket,

Nakasero market, AMFRI Farms and the NOGMU market. Before the farmers went to the markets for the survey, they had to pretest first to see whether they were well versed with the questions and to see the flow of questions. The pretest was done with the outlets in Hoima, after which mistakes were corrected before proceeding to other market outlets.

### ***Analysis of information gathered from markets visited***

***Hoima market outlets:*** Four outlets were visited in Hoima District: the Hoima central market, Lucky Seven supermarket, Millennium and Kolping hotels. In the Hoima central market, farmers found out that there were a variety of products being sold such as tomatoes, onions, cabbage, groundnuts, beans, *nakaati*, bananas, pineapples, green peppers and so many others that the farmers could not exhaust the list. However, despite all the products that were being sold in the market, the prices offered to the farmers were very low.

The Kolping and Millennium hotels had similar demands. The menu served in these hotels include chicken (both local and broilers), pork, beef, *dodo* (amaranthus), tomatoes, green beans, *matoke*, rice, cabbage Irish potatoes, onions and fresh peas. These markets were not promising to the farmers because the quantity of the demand was too small, yet the supply had to be constant; e.g., these hotels consume 3-4 chickens per week, 5 small bundles of *dodo* a day, and 30 kg of pork per week. These hotels have a demand for the products that farmers could supply, but they buy too little, which makes it a risky market to rely on.

The Lucky Seven supermarket had a variety of products in stock. Some of the products the farmers were interested in from this market include watermelons, onions, bananas, pineapples, tomatoes and carrots. This supermarket was not, however, considered a potential market because the prices they pay were too low to sweat for.

***Masindi market outlets:*** Three outlets were visited: the Masindi and Bijah Victory hotels and the Masindi central market. Masindi offered a lot to be supplied by the farmers, including spinach, garlic, carrots, tomatoes, Irish potatoes, pineapples and baby melons. However, the farmers could not ascertain conditions of supply (e.g., frequency of supply); yet the quantity demanded was small. One product did offer a better condition of supply and the cash return was quite encouraging: garlic. The farmers intend to supply this. In the Bijah Victory Hotel quite a few products were also demanded from the farmers. Some of the products demanded include tomatoes, watermelons, cabbage, onions, lettuce, pork, beef, young *moringa* leaves, *nakaati*, cucumbers, pineapples and chicken; but the conditions of supply also limited the farmers as very little is demanded but has to be supplied almost daily. Moreover, the prices offered are not encouraging. In the Masindi central market, watermelons, tomatoes and cabbage were the only products that attracted farmers' attention. However the market did not offer motivating prices to the farmers nor did the buyers show any interest in being supplied with their products.

***Kampala market outlets:*** The market committee visited five places: Shoprite supermarket, Uchumi supermarket, AMFRI Farms, NOGAMU and Nakasero market. The supermarkets had almost the same products, but they were not very willing to give the prices at which they buy these products from the producers on the basis that this is an agreement between the buyer and the producer. The farmers were interested in the following products in the supermarkets: hot peppers, onions, cabbage, *nakaati*, lettuce, tomatoes, eggplants, ginger, white onions, watermelons, spinach, pineapples and vegetables in general.

The farmers also found it hard to produce and pack to meet the supermarkets' standards. Another challenge that the farmers faced from the supermarkets and the Nakasero market was the transportation cost since the suppliers themselves are the ones who transport their produce to the buyers.

The supermarkets expressed little interest in being supplied by the farmers, arguing that it is hard to deal with farmers because they are not consistent in their supply and that they circumvent natural occurrences such as bad weather. Nakasero market had so many varieties of products that were of farmers' interest. These products include Danial, tomatoes, onions, hot peppers, lettuce, *nakaati*, cabbage, white onions, garlic, carrots, sweet potatoes and many others that the farmers did not express interest in. This market had a lot to be supplied by the farmers, but the buyers never gave them straightforward buying prices, which discouraged the farmers to supply the market. On the other hand, the market is supplied early in the morning at around 6:00-8:00 a.m. This limited the farmers as it is a competitive market where sales are made based on how early one came and the quality of the products being sold. To the farmers, it appeared very unprofitable to supply such a market since they have no proper means of transport to rush and arrive in time for the sales in the market so it was ruled out although a few buyers were interested in being supplied.

**Organic markets:** The farmers visited two promising markets in Kampala: NOGAMU and AMFRI farms. These markets deal in organic products, both for export and home markets; and they offered exciting opportunities to the farmers including the supply of any of the following products: hot peppers, pineapples, ginger, bananas, avocados, passion fruits, papayas, mangoes, jackfruits, garlic, oranges, tomatoes, cabbage, sweet melons, green peppers, carrots and egg plants. However, these products have to be produced organically under strict supervision of the buyers. The advantage with the markets is that they offer transport to bring farmers' produce to their offices and also pay farmers a better price than the open markets throughout the year, even when there is a lot of supply. Another advantage of this market is that it buys all that the farmers have produced, irrespective of the size, as long as it is not affected by disease. To the farmers the organic markets were better than all the other markets and less exploitative.

**What the buyers look for:** Before farmers complain that there is no market for their produce, they should have reliable knowledge of what the buyer looks for before they commit themselves to supplying the market. As noted during the market visit, buyers normally look at the following:

- Well-sorted produce
- Farmers willing to supply the needed quantity of produce that the buyer wants at the time that he/she wants
- Produce packed in good-quality containers that will make the produce look attractive but not accelerate its perishability
- People who operate in a group because dealing with individuals will not let the buyer meet his/her target quantity
- Good quality of the produce; i.e., size and shape

Table 1. Summary of the major products and potential markets.

<b>Market outlet &amp; location</b>	<b>Product Name</b>	<b>Quality Required</b>	<b>Minimum Vol. Purchased</b>	<b>Frequency of Delivery</b>	<b>Present Origin of Products on Sale</b>	<b>Purchase Price</b>	<b>Mode of Payment</b>	<b>Possibility of Supply</b>
Masindi Hotel	Carrots	Fresh	20 kg	Daily	Masindi market	2000 per kg	Check	Yes
	Garlic	Well dried	1 bag	Once a week	Kampala	60,000 per bag	Check	Yes
	Tomatoes	Big size, not very ripe	4 boxes	Once week	Masindi market	6000 per box	Check	Yes
	Spinach	Fresh	1 bag	Daily	-	15000 per bag	Check	Yes
AMFI Farms, Kampala	Pineapple	All sizes, but organically produced	300 kg	Once a week	Kampala, Mukono, Mityana	100–500 per head	Check	Yes
	Hot peppers	No patches	2000 kg	Once a week	Mukono	3000 per box	Cash	Yes
	Ginger		2000 kg	Once a week	Mukono	1800 per kg	Cash	Yes
	Bananas	Fresh and raw	2000 kg	Once a week		300 per kg	Cash	Yes
	Avocados	Fresh and raw, rough skin	1000 kg	Once a week		200–300 per Pc	Cash	Yes
	Passion fruits	Purple	1000 kg	Once a week		1000 per kg	Cash	Yes
NOGAMU, Kampala	Garlic	Well dried	1 sack	Thrice a week	Kampala, Mukono, Wakiso	3000 per kg	Cash	Yes
	Pineapple	Organically produced	30 pieces	Daily	Kampala, Mukono, Wakiso	700 per Pc	Cash	Yes
	Green peppers	Fresh	5 kg	Once a week		1500 per kg	Cash	Yes
	Egg plants	Fresh	10 kg	Daily	Kampala, Mukono, Wakiso	1000 per kg	Cash	Yes
	Tomatoes	Fresh	20 boxes	Daily	Kampala, Mukono, Wakiso	8000 per box	Cash	Yes

Table 2. Major problems faced by farmers in marketing agricultural products, ranked.

<b>Problems</b>	<b>Rank</b>
Low prices offered by buyers	1
Exploitation by middlemen	2
High cost of and unreliable transport	3
Changing market demands	4
Perishability of some products	5
Unpredictable weather	6
Lack of up-to-date market information	
Low, poor-quality yields	7
Individual marketing	8

**Evaluation of market information and enterprise selection:** Farmers need to be guided during the selection of the enterprises in which to invest. This is because farmers often get carried away by the operating market prices. It is common for them to base their decision on the products offering the highest price in the market and forgetting other factors that may affect the production and supply of such products. Before selecting any enterprise, a thorough evaluation of all the options has to be done with the farmers so that they are in a position to determine which products can be realistically produced without frustration in the long run.

Following the return from the market visit, the market committee presented their findings to the rest of the group members so that a decision could be made as a group concerning which products they could produce successfully as an income-generating option. Farmers also had to take into consideration market demand and supply forces and other external factors that could affect the production of the product they select. The following criteria guided farmers in selecting the enterprises that they later on chose and the markets to supply:

- Market demand
- Possibility of the profitability of the product
- The market price of the commodity
- Cost of transportation for farmers
- The time frame before the farmer will start realizing benefits from the product
- Knowledge of production of the product
- Land size
- Production costs
- Ability to supply the market constantly
- Knowledge of post harvest handling of a particular product
- Availability of technical expertise
- Ecological factors like the type of soils and weather conduciveness for the products
- Perishability

***Enterprises selected by the Tukulerehamu youth group and Tweimukye group:***

Based on the above criteria for selecting income-generation enterprises, discussions centered on crops that had high demand, ready market and ease of production in relation to production costs such as transportation, labor and pest/disease management. The Tukulerehamu youth group selected the following crops: Hot peppers, pineapples, ginger and papayas. The Tweimukye group selected hot peppers, ginger, garlic and passion fruits.

***Conclusions***

It is important that market research be conducted before farmer groups or individuals embark on the production of a particular product. This guides the decision as to what should be produced, for whom, when and what quantity. The PMR is crucial as it helps farmers produce what they can sell rather than trying to sell what they have produced. Many times farmers produce blindly, stating that there are no markets for agricultural products; yet the market survey shows that farmers fail to meet the quantity and frequency of supply as demanded by the buyers.

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## **Comparative Analysis of Strategies for Linking Farmers to Markets: Is Gender Integration an Important Consideration? A Case Study of Malawi**

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### **Background**

Natural resources are a significant part of our environment, which, if used in a sustainable manner, could improve the livelihoods and food security for the majority of the rural poor. For many African countries, poverty and the lack of appropriate knowledge, technical backstopping and cash resources are major constraints to small-scale farmers' participation in different technologies for natural resource management (NRM) (I-LIFE 2004). In addition, lack of the necessary infrastructure and dispersed production have led to high transaction costs and poor market access (Mwalukasa et al. 2001; Estrada et al. 2005; Mattee et al. 2005), and the farmers' failure to reap benefits from participating in commercial farming.

Women produce from 60-80 percent of the food in most developing countries and are responsible for half the world's food production (FAO 2004). However, gender disparities, which are very common and widespread in African countries, undermine women's recognition and their contributions in agricultural technological innovations (Feldstein & Poats 1989; Rao et al. 1991; Barrett et al. 2002; Thangata et al. 2002; Gladwin 2003; Schmink 2003; Udry 2003; Pimbert 2004). Gender disparities affect African women and poor farmers in terms of access and control to livelihood resources (natural, human, social, financial and physical resources; agricultural inputs, food security, income, shelter and access to internal and local markets, and other resources that enhance their ability to make choices and informed decisions), production and consumption benefits (Amoloza 1998; Reij & Waters-Bayer 2001). Despite their vital role in agricultural production, African women and poor farmers are less secure in terms of these resources, and tend to be most vulnerable to impacts that undermine their economic resilience to shocks and their social support networks (Amoloza 1998; Niehof 2004). Lack of access to and control over productive resource limits women and poor farmers from participating in agricultural technological innovations (de Haan 2001; Njuguna & Valdivia 2005), thereby reducing their productive role and independent income. With regard to gender, the last two decades have seen a growing consensus on the need for more effective ways to work with local communities to improve agriculture and food security (Schmink 2003; FAO 2004), with an emphasis on livelihoods and the involvement of women and poor farmers.

On the other hand, recent studies have indicated the importance of reinforcing social capital (SC) in communities for successful community development and empowerment (Rouse 1996; Johnson et al. 2002; Krishna 2003). SC refers to the degree to which a community or society collaborates and cooperates through such mechanisms as networks, shared trust, norms and values to achieve mutual benefits (Krishna, 2003). SC is a resource, a propensity for mutually beneficial collective action that communities possess to different extents. Communities with high levels of SC are able to act together collectively to achieve diverse common objectives such as accessing and sharing information via networks of

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contacts, improving agricultural production, reducing transaction costs in contracting via trust, and sustaining capacity for collective action (Rouse 1996; Johnson et al. 2002; ICRAF 2004; Mtenga et al. 2005; NASFAM 2005).

The social networks, norms and trust that comprise SC are potential determinants of R&D outcomes and positive impacts for sustainable NRM (Rouse, 1996; Johnson et al. 2002; World Bank 2004). These informal networks and social relationships are particularly important for women and poor farmers in many African societies (Rouse 1996). To date the majority of farmers still rely on kin and social networks for access to livelihood resources such as knowledge/skills, land, labor, inputs and capital. However, different farmers in a community may belong to different social networks for different purposes. Hence the economic and social consequences of different development projects may impact farmers' SC, their organizational capabilities and empowerment in different ways.

Sustainable management of existing natural resources by rural communities offers potential for new livelihood benefits. However, this requires the development and strengthening of social and institutional capacity (Kaaria 2005), timely information and communication, appropriate policies and advocacy that explicitly integrate gender dimensions and decentralization of decision-making and management actions to local governance (I-LIFE 2005; NASFAM 2005). Mainstreaming gender represents an opportunity for identifying and enhancing vulnerable people's livelihoods. Intensification of marketable enterprises and products (e.g., agroforestry and fruit tree products) can also increase small-scale farmers' income (ICRAF 2004). Access to potential markets may increase farmers' incentives to participate in agricultural intensification through investment in better NRM (Boserup 1981; Ruttan & Hayami 1991; Barrett et al. 2002; Kaaria 2005). Small-scale farmers are likely to adopt and invest in NRM technologies that produce for the market; however, appropriate strategies and methods are required to ensure security of resource/assets (labor and capital, technology management and entrepreneurial skills, market access, etc.) for sustainable rural livelihoods.

In Malawi there are different organizations with strategies for implementing marketable enterprises for farmers' increased income and food security. This research aims to identify these strategies, summarize and analyze them to bring an understanding of some key lessons and potential experiences for strategies that directly benefit rural people particularly women and the poor.

### ***Research objectives***

- To identify and compare different strategies for linking farmers to markets that explicitly integrate gender dimensions
- To determine and analyze the extent to which women farmers participate in the market
- To determine what benefits women farmers derive from participating in the markets
- To analyze NRM decision-making/tradeoffs between food security and market enterprises

### ***Research methodology***

The research is divided into three phases; hence, different methodologies are used. Phase 1 aimed to identify and compare different strategies for linking farmers to markets

(Objective 1). Phase 2 will cover objectives 2-4, which involve collecting and analyzing information from farmers to determine the extent to which women farmers participate in the market, types of benefits that women farmers derive from participating in the markets, and NRM decision-making/tradeoffs between food security and market enterprises. Phase 3 will involve organizing and analyzing data collected and dissertation write-up.

**Research Phase 1:** Phase 1 research was conducted from September 2005-January 2006. The major objectives were to:

- Identify organizations that link farmers to markets
- Compare and analyze strategies that these organizations have used to link farmers to markets
- Select a few strategies based on the foregoing analyses for a detailed study of overall research objectives 2-4, using structured methods and questions.

**Data collection methods:** This part of the research was built on the information obtained from a few strategies that were identified during the preliminary research work in June 2004, where such organizations as the Association of Smallholder Seed Multiplication Action Group (ASSMAG), National Smallholder Farmers' Association of Malawi (NASFAM), International Center for Tropical Agriculture (CIAT) and International Institute of Tropical Agriculture/Southern African Root Crops Research Network (IITA/SARRNET) were identified as having potential strategies for linking farmers to markets. However, at the beginning of Phase 1, it was noted that there were other organizations with potential strategies through which farmers have linked to markets. Based on this, formal interviews were conducted with key informants to obtain information on different strategies they used and also served as a means of identifying other organizations with strategies for linking farmers to markets.

After the interviews, key informants were asked whether they knew any other organizations with strategies for linking farmers to the market. Through this process, 14 organizations were identified. Their strategies were compared and analyzed using the institutional framework that was designed using important criteria such as the type of strategy used, integration of gender, community empowerment and NRM; scale of operation, type of support offered, and type of agroenterprises supported (Appendix 1).

Based on the analysis, six organizations were selected for further analyses: CIAT, ICRAF (World Agroforestry Center), NASFAM, World Vision, ASSMAG and RUMARK (Rural Market Development Trust). Informal discussions were conducted with farmers working with CIAT, ICRAF, World Vision and ASSMAG as a follow-up to see whether each of the strategies met the predetermined criteria for comparison at farmers' levels. Informal discussions will be held with farmers working with NASFAM and RUMARK by the end of February.

Two sets of checklists of questions were developed to collect information from key informants and farmers. These were pre-tested with a key informant and farmers working with CIAT and later on modified to capture the necessary information required for Phase 1 of the research. A follow-up was done with key informants through emails, phone calls and/or setting of additional appointment meetings with them to address specific questions that needed more information and clarification.

**Research results:** The research identified the following organizations with strategies for linking farmers to markets:

- CIAT
- IDEAA (Initiative for Development and Equity in African Agriculture)
- IITA/SARRNET
- NASFAM
- ASSMAG
- RUMARK, a CNFA affiliate
- I-LIFE DAP (Improved Livelihoods through Increased Food Security Development Assistance Program), a consortium including organizations such as Catholic Relief Services (CRS), CARE International/Malawi, the Salvation Army in Blantyre, Africare, Emmanuel International in Mangochi, Save the Children and World Vision.
- CARE International
- World Vision
- CRS
- ICRAF
- Concern World Wide
- Concern Universal, an IFAD (International Fund for Agricultural Development)-funded project
- International Crops Institute for the Semi-Arid Tropics (ICRISAT)

All these organizations have used different strategies to link farmers to markets, which are categorized into the following models:

*Farmer-to-trader linkage*

Most strategies used this linkage model. This is a slightly different model from that identified by FAO in Bangladesh and El Salvador, where traders and farmers developed markets together (FAO 2005). In Malawi farmers were assisted by their organizations to conduct market research and/or eventually develop potential agroenterprises to meet market demands. Most organizations that fall under this model facilitated farmers' linkage with traders; some assisted with contractual and price agreements for marketing crops and livestock products. Although the final decision for the actual price of the commodities was left to the farmers, this model brings an understanding of the role of these organizations in the whole marketing process. CIAT, CRS, IITA/SARRNET, ICRISAT-NASFAM, World Vision, CARE and ICRAF strategies have used this model to link farmers to the markets.

*Linkage through a leading farmer (farmer-to-leading farmer)*

This model was not extensively used in Malawi. IITA/SARRNET tested this model with a few farmers in Lilongwe district. In this model cassava production was organized through different small-scale farmers. These farmers sold cassava to one leading farmer-buyer, who in turn processed the raw cassava into chips and/or flour and sold these products to potential traders in Malawi.

*Linkage through farmer associations (farmer-to-association)*

Only a few organizations such as NASFAM had strategies that fall under this model. Within NASFAM, farmers were organized to produce highly marketable crops for national and international markets. Farmers sold to NASFAM, which in turn, sold the commodities to national and international traders through its Commercial Center. Farmers who worked with Concern World Wide were also linked to NASFAM. ASSMAG

and World Vision also used this model, where their farmers sold commodities through ASSMAG associations and the World Vision leaders Association clubs, respectively.

*Linkage through specialized communication and market information centers*

IDEAA was the only organization that used this model. Sellers and buyers of different commodities including agricultural inputs were linked through specialized market-information centers. Using computer networking and cell phone text messages, sellers and buyers accessed potential market information available each season. In addition IDEAA facilitated meeting of sellers and buyers for contractual and price agreement. Special radio programs were designed to reach majorities of farmers with potential production and marketing information to enable them to make informed decisions on the price of the commodities they needed to sell/or buy.

These strategies were analyzed using criteria such as type of strategy used, integration of gender, community empowerment and NRM; service providers' competence, capacity building of farmers to analyze their market, scale of operation (no. of farmers reached and geographic coverage), and level of support serviced offered. Appendix 1 summarizes the results from the comparative analyses of these strategies.

## **Conclusions**

It was found that each strategy varied from one another, but all illustrated the potential for improving farmers' market access. Each strategy falls under different models identified by FAO (2005), by means of which farmers had linked with markets. A detailed analysis of these strategies is being finalized in a paper.

Based on the pre-determined criteria for comparing and analyzing these strategies, this research selected CIAT, ICRAF, NASFAM, World Vision, ASSMAG and RUMARK as having potential strategies for linking farmers to markets. Phase 2 will analyze these strategies to determine the extent to which women farmers participate in the market, type of benefits they derive from participating in the markets, and NRM decision-making/tradeoffs between food security and market enterprises.

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## Appendix 1: Institutional framework for comparing and analyzing different strategies for linking farmers to markets<sup>1</sup>

Organization	Type of strategy	Service providers' competence	Building farmers' capacity to analyze market	Scale of operation (no. & geographic coverage)	Integration of NRM (sustainability of production)	Is production demand-driven?	Level of support services offered	Extent to which gender is integrated	Focus on community empowerment
CIAT	ERI	xx	xxx	x	x	xx	xx	xxx	xxx
IITA	Demand-driven	x	X	x	x	x	xx	x	x
ICRAF	Demand-driven	xx	xx	x	xxx	xx	xx	xx	xx
World Vision	ADP/ Holistic	xx	xxx	xxx	xx	xxx	xxx	xx	xx
NASFAM	Demand- & production-driven	xxx	xxx	xxx	xx	xxx	xxx	xxx	xxx
ASSMAG	Demand-driven	xx	xx	xxx	x	xx	xx	x	xx
Concern World Wide	Demand-driven	x	x	x	x	x	xx	x	x
IDEAA	Information-communication	xx	x	xx	x	x	x	x	x
I-LIFE	Holistic	xx	xx	xx	xx	xx	xx	xx	xx
CRS	Demand-driven	x	xx	x	xx	xx	xx	xx	xx
ICRISAT	Partner-trader-led	x	x	x	x	xx	xx	x	x
RUMARK	Demand-driven		x		x			x	

1. Index: x = low, xx = moderate, xxx = highest.