Market access for agro-enterprise diversity in the Lake Kivu Pilot Learning Site of the sub-Saharan Africa Challenge Programme

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Abstract

The Forum for Agricultural Research in Africa (FARA) commissioned a pilot study to understand the role of markets and marketing systems in African agriculture and to test the Integrated Agricultural Research for Development (IAR4D) and its innovation platforms (IPs) as a new strategy for wealth creation. This was in response to the fact that Sub-Saharan Africa’s small-scale farmers seem to have been trapped in cycles of poverty, and that the regional economy has stagnated. Using a market baseline survey in Uganda, Rwanda and the Democratic Republic of Congo (DRC), the Sub-Saharan Africa Challenge Programme (SSACP) found that disorganised markets and marketing were major factors in perpetuating poverty cycles and subsistence agriculture. These markets are characterised, among others, by too many players within a value chain, a lack of collective marketing and collective purchasing, poor transport infrastructure, a lack of value addition, poor market information, poor access to market information or a total lack of market information, and unfavourable trade policies and/or a lack of any. Although smallholder farmers are the highest investors in terms of land, tools, time, labour, inputs and transport along the value chains, they benefit least when it comes to earnings. Hence it is not economical to produce surpluses in the absence of assured markets, good market policies and reliable marketing strategies. The results show that gender is an important component in the value chains, depending on the historical realities. In the DRC, for example, a country that has been in crisis for long, women have ventured into long- and short-distance trade. In Uganda, a country that has been at peace for at least 20 years, men trade more and further away from home. In Rwanda, where there has been 15 years of peace, men and women seemed to share the trading space in the country equally. It was also observed that the IAR4D approach may be the most relevant and appropriate one for addressing poverty in SSA through its integration of markets as core ingredients in agriculture, and the formation of innovation platforms (IPs) with stakeholders interested in the plight of farmers in their localities.

Keywords: market access; market disorganisation; market intermediaries; commodity value chains; IAR4D; IPs

1. Introduction

Traders from Sub-Saharan Africa (SSA) form an important group that links small-scale farmers to available markets. But, like the farmers, the traders face challenges regarding the quality, quantity and reliability of supply of commodities for trade. The domestic markets where most of the food commodities are traded have little structure or order. Anyone can be a trader and trade in whatever quantities they are able to purchase and sell, no matter how small. That means there are countless
traders and many actors in commodity value chains. This does not help the small-scale farmers, who continue to languish in persistent poverty.

African agricultural food markets lack collective marketing and collective purchasing. There are long distances between production areas and consumption areas, coupled with poor infrastructure facilities. Most products are sold raw, meaning they have to be disposed of as soon as possible to avoid rotting. Inadequate storage facilities and strategies, especially at the producer level, is a major handicap, along with poor post-harvest handling of many products by both traders and farmers. Thus, most sales are done at harvest time, when prices are at their lowest.

Small-scale agriculture and trade face poor access to credit, markets and market information. Unfavourable trade policies and/or lack of enforcement of the existing ones exacerbate the problems, which affect traders and spill over to the farmers.

Given the above challenges, smallholder farmers receive the fewest benefits, despite being the highest investors in terms of land, tools, time, inputs and transport of products to the market. The immediate actors in farm product value chains do not have it any better, and that is why poverty levels in SSA continue to be high, with many people living on less than $1.25 a day. In such disorganised markets there very few winners.

Several questions arise from this scenario: How can each one of these challenges be addressed in order to profitably increase returns from farming activities to farmers and traders? How can we make farmers and traders alike create wealth for more sustainable livelihoods? In order to address these issues, it was necessary to carry out a situational analysis of the commodity trade in the Lake Kivu region. This paper points out the magnitude of these issues, using some of the initial data from the baseline trader survey conducted in the Lake Kivu Pilot Learning Site (LKPLS) in 2009. The survey provided the market situational account upon which subsequent efforts have been tested, providing ‘efficient’ marketing systems that work better for traders and smallholder farmers in the LKPLS. Specifically, the paper discusses the current socio-economic characteristics of the traders, and provides an assessment of value chains in terms of access to market information and other market services, and existing constraints and opportunities for improved market access for diversified agro-enterprises.

The paper is organised as follows: Section 2 discusses the methods used for data collection and sampling design. Section 3 presents and discusses key results. Finally, Section 4 summarises the paper with some conclusions and implications for IAR4D, not only in the LKPLS, but in SSA and the developing world at large.

2. Data and Methods

The data used for this study is based on a market baseline survey conducted in 2009 to complement a household baseline survey conducted in 2007. The market survey addressed, among other things, the following questions:

- What are the existing market opportunities in terms of demands, markets and products for selected crops in the research areas?
- What socio-economic conditions restrain engagement in agricultural input and output markets for selected crops in the research areas?
- What are the constraints and options to improve the current market situation in the Lake Kivu Pilot Learning Site? and
- What are the gender perspectives in agricultural trade activities?
The market survey covered 12 districts in Rwanda, Uganda and the Democratic Republic of Congo (DRC) (Table 1). This survey also extended to markets that are considered captive to the products from the LKPLS, even though they are outside the Lake Kivu area. A multi-stage stratified random sampling procedure was used to come up with the study sample. From the 11 districts, 18 markets were selected as follows: the Ruhengeri-Gisenyi axis in Rwanda, the Goma-Rutshuru axis in the DRC, and Kabale-Kisoro axis in Uganda. The three countries constitute the Lake Kivu Pilot Learning Site, where the project activities took place. The districts, on the other hand, contained the markets that were being assessed (Table 1).

Table 1: Study districts in the LKPLS

<table>
<thead>
<tr>
<th>Uganda</th>
<th>Rwanda</th>
<th>DRC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kabale</td>
<td>Kigali</td>
<td>Goma</td>
</tr>
<tr>
<td>Kisoro</td>
<td>Rubavu</td>
<td>Kisigari</td>
</tr>
<tr>
<td>Mbarara</td>
<td>Bureta</td>
<td>Mvunyi Shanga</td>
</tr>
<tr>
<td></td>
<td>Musanche</td>
<td>Buzi</td>
</tr>
</tbody>
</table>

Source: Market survey data, 2009

The target markets were selected based on a characterisation developed by Farrow et al. (this issue). A simple random sample of traders was taken in each market. Six traders per enterprise per market were randomly selected from sampling frames made available by the market superintendents, who had lists of traders registered in each market. A total sample of 456 randomly selected traders was realised in the market baseline survey. These samples included wholesalers, transporters, brokers, retailers and collectors. A pre-market survey to determine the most traded commodities in each country was carried out before the main survey. The major commodities surveyed were beans, Irish potatoes, sorghum, cabbages, maize and bananas.

3. Results and Discussion

3.1 Participation in agricultural trade activities

Both women and men participated in commodity trade in the region, with the majority in all three countries operating as sole traders and fewer than 10% of them, mostly in Uganda and the DRC, operating in marketing groups or associations. In Uganda, men dominated commodity trade (about 70%) compared to women (about 30%). Male traders in Rwanda comprised about 60%, with female traders at about 40%. However, in the DRC, female traders were almost 70%, with the rest being male traders. These figures are illustrated in Figure 1.
Thus, while women dominated commodity trade in the DRC, the reverse was true in Uganda and Rwanda. This result could be attributed to a growing pattern following the conflict situation in these countries. One of the choices of the participating countries in the Lake Kivu site was based on a conflict continuum and its effect on commodity trading in local and cross-border markets. In the time this survey was done, Uganda was more than 21 years post-conflict, and therefore homesteads had more or less normalised. This has allowed the traditional patriarchal systems of agricultural production and management to take their place, with men venturing out as the main household providers, and hence being able to trade far away from home. Women stay at home to take care of the families and provide the bulk of agricultural labour on the farms. This scenario presents a typical African household setup. Rwanda was about 16 years post-conflict, with men outnumbering women marginally in trade, as households moved to “normality”. But in the DRC, a country that is still experiencing an active conflict situation, women appear to have taken over what would traditionally have been men’s roles by venturing out of the homesteads into long- and short-distance trade activities.

3.1.1 Business types
In small-scale agriculture, the marketing of farm produce seems to have lengthy value chains, as indicated by the number of value chain actors. In the study site, some products changed hands five to six times in a day. As Figure 2 shows, there were several players in each commodity chain. Across the three countries, commodity retail traders were distributed fairly. However, variations can be observed in the other trader types: the Rwanda markets had relatively fewer wholesalers compared to those in Uganda and the DRC. There were also much fewer transporters in Uganda, but the number of collectors was much higher. Finally, agents and brokers were not available in most of the markets in the DRC. The presence of collectors, agents and brokers points to the inability of producers to reach their markets of choice directly, especially when they do not have their own means of transportation.
3.1.2 Transportation preferences

The results showed that women traders dominated in most transport options, except in hired vehicles, where men dominated (Figure 3). Few traders in the study area had personal means of transport. However, among the few owners of personal vehicles, the majority were women, while men appeared to rely mostly on hired transport.

Note: Non-motorised transport includes wheelbarrows, bicycles, wooden bicycles (Shikadoo – common in the Congo), and the human head or back, often used by women.

Women traders used more of the non-motorised means of transport means compared to men in the study site.
3.1.3 Group marketing among traders in the LKPLS

Based on the 2007 household surveys in the study area, very few producers reported using binding contracts to guide transactions between them and the buyers, as fewer than 0.5% of the farmers in the DRC and Rwanda had binding contracts with buyers, and none at all in Uganda. It was almost unheard of among our respondents that one can sign a contract with a buyer or a farmer.

Small-scale agricultural actors in SSA face many challenges. One of them is lack of group marketing, where they put all their products together and bargain for premium prices as unified actors, thus taking advantage of economies of scale. On the basis of both the household baseline survey of 2007 and the trader baseline survey of 2009, group marketing was minimal in the study site; few traders reported collectively marketing their produce, as exemplified by agreements between farmers and traders or between each group within itself (Figure 4). Only the transporters reported substantial agreements with farmers, followed by wholesalers and retailers. Contracts with buyers were minimal across all traders, with all being less than 5%.

![Figure 4: Use of agreements between traders and their partners](source: Trader survey, 2009)

3.1.4 Membership of associations or groups

Many of the respondents belonged to an informal association or group. None had any official registration at the time we carried out the trader survey in 2009. Traders in the region belonged to both trader associations and farmer associations (Figure 5).

Across the countries, the Uganda traders had consistent membership of both farmer and traders’ associations, while the DRC traders had the least affiliation to associations. Many traders in the Lake Kivu Pilot Learning Site doubled up as farmers and had homes in rural areas, thus they were able to belong to both farmer and trader associations and engaged in trade in addition to farming. For example, in Uganda, many traders were also farmers and traded as an alternative occupation. It was only in the DRC that a few of the long-distance female traders were not doubling up as farmers, and this was purely because of insecurity. However, as mentioned elsewhere, these associations were more for social welfare other than trade, although they could be improved to include trading as well.
3.1.5 Transport

Collective action is also shown by the extent to which traders shared transport means for their products. Overall, sharing or pooling of transport was relatively more common in Uganda, with 46% of the traders reporting sharing transport means among themselves. On the other hand, 29% of the traders in the DRC shared transport means, while only 5% of traders in Rwanda reported sharing transport means for their products. Despite this membership of traders’ associations (relatively high in Uganda, with over 40% membership in farmers’ associations and about 60% in trader associations), this was illustrated less in collective actions such as the pooling of transport (Figure 6).

From Figure 6 above it is clear that pooled transport is not a major undertaking. The use of pooled transportation appears highest in Uganda, followed by the DRC. The study sought to identify some of the reasons that explain the level of transport sharing observed (Figure 7). There are various reasons given for the transport arrangements observed among the traders. Many traders indicated that they did not use vehicles. For example, in the DRC, more than 60% of the traders did not use vehicles because there were almost no feeder roads that could be used effectively by motorised
transport. About 37% of traders in Rwanda said one needed enough product quantity to fill the entire vehicle space, and many of them could not afford such quantities. Poor collaboration was reported in Uganda and the DRC.

![Figure 7: Reasons for lack of transport sharing among traders](source: Trader survey, 2009)

3.1.6 Mode of transport for traders
In Table 2 below, it is clear that the use of motorised transport by the traders is lowest in the DRC (about 30%), followed by Rwanda (about 40%). Uganda had the most use of motorised transport, with about 66% of the traders using it. Conversely, non-motorised transport was used by about 70% of the traders, which is mostly on the head/shoulder/ back of women. This confirms Blackden and Bhanu’s (1999) World Bank study that found that women in SSA transport close to 60% of marketable products to the markets, much more than what is moved by motorised transport.

<table>
<thead>
<tr>
<th>Transport Type</th>
<th>Uganda %</th>
<th>Rwanda %</th>
<th>DRC %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Own vehicle</td>
<td>5.71</td>
<td>9.86</td>
<td>6.33</td>
</tr>
<tr>
<td>Hired vehicle</td>
<td>20.00</td>
<td>19.01</td>
<td>8.86</td>
</tr>
<tr>
<td>Public transport</td>
<td>39.29</td>
<td>9.86</td>
<td>14.56</td>
</tr>
<tr>
<td>Motorbike</td>
<td>1.43</td>
<td>0.00</td>
<td>1.27</td>
</tr>
<tr>
<td>Non-motorised bike, cart</td>
<td>15.00</td>
<td>18.31</td>
<td>24.68</td>
</tr>
<tr>
<td>On head/shoulder/back</td>
<td>17.14</td>
<td>25.35</td>
<td>44.30</td>
</tr>
<tr>
<td>Other</td>
<td>2.14</td>
<td>17.61</td>
<td>0.00</td>
</tr>
<tr>
<td>N</td>
<td>140</td>
<td>142</td>
<td>158</td>
</tr>
</tbody>
</table>

Source: Trader Survey, 2009

Besides human heads and backs, other non-motorised means include shikadoo bicycles (wooden bicycles) and wheelbarrows. In the DRC there are “women carriers” who transport produce on their heads or their backs, mostly from farms to the markets, for pay and as a fulltime occupation. Most of the production areas are up the hills where there are no roads. Thus motorised and non-motorised transportation systems cannot work.

3.1.7 Gender and access to credit
There are some mutual credit system between farmers and traders. Male traders seem to give more credit to their suppliers than female traders (Figure 8), implying that male traders are greater risk takers than women traders.
However, despite the differences in willingness to give credit between the male and female traders, there appeared to be no difference in repayment of credit, as shown in Figure 9. Among the traders who reported non-repayment of credit, relatively fewer women (only about 2%) reported non-repayment, compared to about 8% of the male traders.

### 3.1.8 Market access in the LKPLS

Market access factors that are likely to have an impact on value chain actors in the product chains include distance to markets, sources of product supply, value addition, storage, and market information. All of these contribute to ease of market access. Among the traders, distances to the nearest tarmac road and the nearest towns showed serious challenges, especially due to the poor infrastructure in the regions. Figure 10 below shows the distances between the location of the traders and the main towns where they market their products. In the DRC the traders were furthest from the main towns, at about 36 km on average. Rwandan traders were closest to their main towns, with an average distance of 7.7 km, and those in Uganda had to travel 11.5 km.
The distances to the main road from where the traders operated differed according to the country. Rwanda registered a minimal distance to a main road of less than a kilometre, while Uganda were more than 4 km away and the DRC traders registered a distance of about 2 km. There are several assumptions that one can make from this. The distance to the main road reflects the infrastructure capacity of the countries involved. Rwanda is a small nation with a high population density, coupled with an ever-improving road network, unlike the other two countries, which are large and have roads are not located nearby.

![Figure 10: Average distances to main roads and nearest towns](Source: Trader survey, 2009)

Regarding the distances that traders covered, the Congo traders travelled the furthest to the nearest town, but were very close to a main road. A main road in the DRC is more likely to be a ground road and not an all-weather road.

### 3.1.9 Source of products for sale

From the supply side, most traders transacted with individual farmers, followed by collectors (Figure 11). Thus, if farmers are selling individually and traders are buying individually, the market prices become very unreliable and, most of the time, the farmers lose out in such situations. Direct sourcing may also have implications for transaction costs if the quantities sourced are relatively small (as is common for smallholder farming communities). The potential to reduce the transaction costs of supplying the produce would lie in collective action, for example through farmer associations and collective buying through trader groups. However, the results of this study indicate that associations contribute only a very small portion of supplies to traders. There is enormous potential to be competitive, and to improve both markets and market access by creating producer marketing groups and trader purchasing groups that are linked within a platform to share in and draw up a win-win strategy that has a positive effect on everyone’s livelihood.
3.1.10 Group marketing

Figure 12 below shows the lack of group marketing in the region, in that over 70% of traders source their commodities directly from individual farmers. There are some farmer associations in Rwanda as a result of government efforts to put farmers into cooperatives for collective marketing. Collectors in the value chain seem to fulfil a very important role to link farmers and traders.

With diverse product supply sources, women were more likely to source from collectors and agents/brokers compared to their male counterparts. More men sourced from private farmers (60%), although about 50% of women traders also sourced directly from private farmers.

Collectors usually establish links with producing areas and transport the produce to the market for the other traders. Thus most of the traded commodities were sourced from individual farmers directly or through collectors.

3.1.11 Product status – raw versus processed

A characteristic of difficulties in market access is when products are sold in raw forms without much value addition or processing. As depicted in Figure 13 below, the amount of products sourced from processors is practically non-existent. Within the LKPLS, very few of the commodities from
the small-scale farmers were processed for the market. What was identified as processing was very basic, including re-arrangement of the product for ease of transportation, such as splitting banana fingers into bags to avoid breakages; drying cassava in the sun and packing in bags; and cleaning beans and packing them by type. Most of the products are sold in the raw form. The DRC has the highest proportion of products sold in the raw form (more 95% of traders), while Rwanda has a relatively higher proportion of processed products (about 40% of the traders). This means that traders and producers do not gain from value addition, hence the urgency to sell will always limit better returns due to the short shelf life of the products.

![Figure 13: Form of products sold by traders by country](source: Trader Survey, 2009)

Raw products dominate the market and this means that the perishability factor is likely to dictate the prices at farm level and in the market. Consequently, storage is a key factor that may help in accessing profitable markets for agricultural products. In the LKPLS, storage facilities at the farm level are scanty. This means that farmers must harvest and market their products immediately to avoid spoilage. On the other hand, traders do very good business at harvest time because the prices are very low, often taking advantage of farmers. But storage facilities are also among the traders. This implies that traders also dispose of their products as soon as they can, which also keeps the prices low. For example, only 15% of the traders in Rwanda owned or rented a store. Interestingly, the DRC had the most traders (67%) reporting having access to storage space, either rented or owned. This is a consequence of the conflict and infrastructure limitations that call for adequate storage to reduce frequent trips to production areas. The distances in the DRC are also extensive. In Uganda, about 55% of the traders owned or rented storage space for their products.

### 3.1.12 Sources of market information

The results on market information (Figure 14) show that a large number of traders owned a mobile phone and/or a radio. These are the dominant means of communication in the three countries. Only a few traders owned television sets (TVs). Other means of communication, such as Internet and email or fixed telephone lines, were non-existent among the traders. Mobile phone usage was relatively lower in the DRC (about 32%), with the possibility of hampering communications in the market.
3.1.13 Constraints to trading in the LKPLS

Finally, a review of constraints to traders’ business indicated that the major constraints were those related to market demand in Rwanda and the DRC (Figure 15). Traders reported lacking enough buyers and that competition was high. Supply-related problems were observed in Uganda, and this was mostly irregular supplies, poor quality of products and seasonality of supplies. In Rwanda and the DRC, levies and government regulations were major constraints reported by the traders, while credit availability was a major constraint among traders in Uganda. Business continuity/continuity issues were also reported as major constraints in Uganda and the DRC, because the businesses were dependent on the health of the trader owners. These challenges have to be addressed in order to create wealth among the actors in the food chain.
4. Summary and Conclusions

Traders in North Kivu, as representatives of traders in sub-Saharan Africa, face a series of challenges that include an inadequate, poor quality and unreliable supply of commodities; unreliable demand; poor infrastructure (roads, rail, power); insecurity, especially in the DRC; taxation, both legal and illegal; a lack of reliable credit channels; a lack of trade relations with suppliers; poor and/or a lack of appropriate market information; and a lack of value addition to products that would give longer shelf life. Similar challenges seem to affect farmers, according to the results of the household survey at the same sites in 2007. These and many others are the challenges that IAR4D set out to address, with the conviction that, through innovation platforms, most of the challenges affecting farmers and traders can be addressed by the various stakeholders interested in improving livelihoods in the region. Therefore, through the sub-Saharan Africa Challenge Programme, FARA embarked on addressing these issues from 2008 to 2010. Action research was embarked upon with all the stakeholders, through IPs where farmers, traders, government officials, nongovernmental organisations, researchers, transporters and microfinance institutions came together to address the poverty and wealth creation challenges facing the communities in the study sites.

The end-line surveys (household and trader) carried out in 2010 showed that the IAR4D approach, with its IP flagship, can have considerable success in addressing both farmer and trader concerns. In a separate paper by Nkonya et al. (this issue), the impact of IAR4D is spelled out, showing that the approach is able to bring relevant stakeholders together and that each of them benefits from the approach as innovation platform members. The paper discusses how some of the trader challenges discussed above have been addressed in the two years of project implementation. These include trader associations for trade purposes; linking trader associations with farmer associations and bulk buying/selling; value addition with products such as sorghum and banana by creating processed products such as Mamera Porridge and Kasikis banana bear and banana wine, which have prolonged shelf life.

In addition, markets and marketing skills, including the development of business plans, have been imparted to both the farmers and the traders. Farmers and traders have been able to meet and negotiate as equals for the first time, and to agree on some business; both farmers and traders have been able to access credit from financial institutions; and farmers and traders have entered into formal contracts in their transactions for the first time.

Other successes include women empowerment at all the research sites, which has been achieved through affirmative action in the formation of the innovation platforms, farmer associations and sub-committees that require at least 30% representation of women in the management and decision-making processes. There also has been male empowerment in some communities, where the men initially did very little agricultural work but are now eager to help by providing labour on the farms. All the participating groups were provided with skills for monitoring and evaluating their work individually and in their groups.

References